

## AGENDA MANAGEMENT SHEET

<b>Name of Committee</b>	<b>Stratford on Avon South Joint Committee</b>
<b>Date of Committee</b>	<b>24 July 2008</b>
<b>Report Title</b>	<b>Highway Maintenance Plan 2008/9 and Five Year List of Structural Maintenance Schemes</b>
<b>Summary</b>	The report provides information about highway maintenance work proposed in 2008/2009 and lists other sites where maintenance work will be required in the future.
<b>For further information please contact</b>	Peter Samwell County Highways Project Manager Tel. 01926 736530 petersamwell@warwickshire.gov.uk
<b>Would the recommended decision be contrary to the Budget and Policy Framework?</b>	Yes/No
<b>Background Papers</b>	None.

**CONSULTATION ALREADY UNDERTAKEN:-** *Details to be specified*

- |  |   |
|--|---|
| Other Committees   | <input type="checkbox"/> .....  |
| Local Member(s)<br><small>(With brief comments, if appropriate)</small>                                  | <input type="checkbox"/> .....  |
| Other Elected Members  | <input type="checkbox"/> .....  |
| Cabinet Member<br><small>(Reports to The Cabinet, to be cleared with appropriate Cabinet Member)</small> | <input checked="" type="checkbox"/> Councillor M Heatley – for information. |
| Chief Executive  | <input type="checkbox"/> .....  |
| Legal  | <input checked="" type="checkbox"/> I Marriott – comments incorporated.     |
| Finance  | <input type="checkbox"/> .....  |
| Other Chief Officers   | <input type="checkbox"/> .....  |

- District Councils  .....
- Health Authority  .....
- Police  .....
- Other Bodies/Individuals  .....

**FINAL DECISION**                      **YES/NO**      (*If 'No' complete Suggested Next Steps*)

**SUGGESTED NEXT STEPS :**

*Details to be specified*

- Further consideration by this Committee  .....
- To Council  .....
- To Cabinet  Autumn meeting.
- To an O & S Committee  .....
- To an Area Committee  .....
- Further Consultation  .....

# Stratford on Avon South Joint Committee - 24 July 2008

## Highway Maintenance Plan 2008/9 and Five Year List of Structural Maintenance Schemes

### Report of the Strategic Director for Environment and Economy

#### Recommendation

That:-

1. The Joint Committee is invited to make comments on the Highway Maintenance Plan 2008/9 and the Five Year List of Maintenance Schemes, so that Cabinet can be informed of Members views.
2. Approval is given to spending the Area Committees' Drainage Revenue Allocation on unblocking gullies and repairing damaged pipes.

#### 1. Introduction

- 1.1 The Highway Maintenance Plan for 2008/9 is attached as **Appendix A**. The plan, which has been produced annually since 2002, includes details of the success of past operations and information about the works planned for the coming year. The plan deals with the normal revenue and capital funding for the service. An identical report is being sent to each Joint Committee.
- 1.2 Also included in this report are proposals for spending the Area Committees' Revenue Funding for drainage and Area Committee's Capital Funding for highway maintenance improvements.

#### 2. Highway Maintenance Aims

- 2.1 The main objectives of highway maintenance are:-
  - (i) To keep the network, carriageway and footways, free from dangerous defects.
  - (ii) To maintain and improve the condition (asset value) of the network.
  - (iii) To improve public satisfaction with the network.
- 2.2 The highway maintenance policies and work programmes are designed to achieve these objectives which cover the Council's Statutory Duties and support

the Corporate Priorities including Pursuing a Sustainable Environment and Economy and Protecting the community and making it a safer place to live.

### 3. Success of policies and programmes

- 3.1 **Safety** - The condition of the highway network has a part to play in reducing the number of casualties occurring on the highway. The condition of the network also influences the number of insurance claims made against the Council. The exact relationship between condition and casualties and insurance claims is not straight forward as there are other factors which affect these figures.
- 3.2 In the past year casualty figures have continued to fall. As reported previously insurance claims substantially increased in 2006/07. This was mainly due to a larger number of potholes forming due to the unusual periods of wet and freezing weather in early 2007. Actions have been taken to improve the worst of the roads and to speed up pothole repairs and claims this year have decreased.
- 3.3 Another aspect of community safety is crime and fear of crime. Street lighting is known to play a major role in people's views on community safety. Improvements to lighting in recent years have helped maintain the high levels of public satisfaction with street lighting ( see paragraph 3.8 )
- 3.4 **Asset Value** - The structural condition of the network is measured by the condition surveys. Surfacing treatments help to ensure that roads are strengthened and sealed to improve condition and reduce the numbers of potholes developing in the future.
- 3.5 The 2006/7 surveys indicated that the condition of the roads in Warwickshire are better than the national average and that the condition of the non principal (B, C and D) roads and town centre footways is improving. The 2007/8 surveys indicate little change in the condition of the B, C and D roads compared to the previous year and a slight deterioration in the condition of the A roads. The condition of the carriageways in each District Area for the last three years are shown in the table below. The 2007/8 results split by District are not yet available.

**Carriageways with Defects above the Best Value Performance Indicator Thresholds of the United Kingdom Pavement Management System (UKPMS) Surveys**

		North Warwicks	Nuneaton and Bedworth	Rugby	Stratford	Warwick	Total
2003/04	Length (km)	<b>81</b>	<b>44</b>	<b>99</b>	<b>303</b>	<b>99</b>	<b>626</b>
	Percentage	<b>15.2</b>	<b>11.9</b>	<b>16.3</b>	<b>21.2</b>	<b>14.7</b>	<b>17.3</b>
2004/05	Length (km)	<b>82</b>	<b>45</b>	<b>84</b>	<b>261</b>	<b>93</b>	<b>565</b>
	Percentage	<b>15.2</b>	<b>12.0</b>	<b>13.4</b>	<b>18.3</b>	<b>13.4</b>	<b>15.4</b>
2005/06	Length (km)	<b>72</b>	<b>38</b>	<b>83</b>	<b>258</b>	<b>76</b>	<b>527</b>
	Percentage	<b>12.7</b>	<b>10.0</b>	<b>13.0</b>	<b>17.0</b>	<b>10.8</b>	<b>13.8</b>
2006/07	Length (km)	<b>54</b>	<b>27</b>	<b>86</b>	<b>267</b>	<b>84</b>	<b>518</b>
	Percentage	<b>9.6</b>	<b>7.2</b>	<b>13.4</b>	<b>17.7</b>	<b>11.8</b>	<b>13.6</b>

3.6 The surveys indicate that although there have been improvements in the condition of the carriageways in the Stratford on Avon area since 2003 the year on year improvement was not achieved in 2006. Some of the issues which affect the carriageway condition locally are:-

- (i) The many utility works, particularly in the towns, where old reinstatements are failing and
- (ii) Narrow rural roads which have damaged edges due to present volumes of traffic and increasing size of vehicles.

3.7 **Public satisfaction** - The full Public satisfaction surveys are carried out every other year and the results of the 2007 survey have recently been made available.

3.8 Since 2001, following decisions made after the Best Value review of the service, greater attention has been paid to the lower rated areas of maintenance, such as pavements/footways, rural road surfaces, roadworks planning and drainage. The following table gives information about the changes in satisfaction between 2000 and 2007.

Net Satisfaction from Household Surveys								
	WARWICKSHIRE				STRATFORD ON AVON DISTRICT			
Activity	2000	2005	2007	Change 2000- 2007	2000	2005	2007	Change 2000- 2007
Pavements/Footways	-15	5	2	+17	-18	0	2	+20
Rural Road Surfaces	-14	2	6	+20	-28	-12	-14	+14
Roadworks Planning	-10	10	3	+13	-4	5	12	+16
Drainage	3	13	4	+1	-5	5	-19	-14
Town Road Surfaces	16	22	18	+2	36	36	30	-6
Winter Maintenance	24	24	35	+11	29	33	35	+6
Rural Road Verges	25	38	44	+19	21	26	38	+17
Road Signs	46	50	50	+4	47	46	50	+3
Road Markings	47	42	38	-9	55	39	36	-19
Street Lighting	55	54	58	+3	57	55	48	-9

3.9 The Warwickshire satisfaction levels indicate improvements in satisfaction levels across all the lower rated services since 2000 with an understandable recent drop in satisfaction with drainage activity.

3.10 Satisfaction levels for the Stratford on Avon area broadly mirror the Warwickshire results but with lower levels of satisfaction with rural road surfaces, drainage , rural road verges, road markings and street lighting.

#### 4. 2008/9 Work Programmes

4.1 The maintenance allocations are distributed across the activities to achieve the maintenance policies and objectives. Structural maintenance allocations to each area are broadly based on lengths of roads and footways but are also influenced by overall road condition.

4.2 It is intended to use the Revenue and Capital funding as follows:-

- (i) To continue last years increases in patching and major patching to minimise potholes and uneven pavements.
- (ii) To continue levels of carriageway surface dressing and footway slurry sealing which provide cost effective methods of prolonging the life of

roads and pavements and which reduce the likelihood of potholes and uneven pavements.

- (iii) To continue the footway resurfacing programme to minimise uneven pavements.
- (iv) To maintain the amount of carriageway micro asphalt to extend the life of roads which are not suitable for surface dressing.
- (v) To set the street lighting budget at a level which will allow for all necessary column repairs.
- (vi) Drainage repair and improvement work to increase as a result of an increase in Area Committee drainage budgets. ( See Section 5).
- (vii) To review the level of other maintenance work to ensure the level of activity is appropriate.

4.3 The table below provides information about the lengths of roads and footways which it is hoped can be treated in each area of the County during the year.

Location	Surface dressing (length and percentage of the total network to be treated)				Structural maintenance (length and percentage of the total network to be treated)			
	05/06	06/07	07/08	08/09	05/06	06/07	07/08	08/09
	km	km	km	km	km	km	km	km
North Warwickshire	29	35.3 (6.3%)	32.4 (5.8%)	29.9 (5.3%)	0.9	3.7 (0.7%)	2.1 (0.4%)	1.09 (0.19%)
Nuneaton and Bedworth	24	15.4 (4.1%)	19.9 (5.2%)	15.3 (4.0%)	1.5	1.9 (0.5%)	3.5 (0.9%)	0.58 (0.15%)
Rugby	38	32.3 (5.0%)	32.0 (5.0%)	35.7 (5.6%)	0.3	4.8 (0.7%)	4.7 (0.7%)	1.20 (0.18%)
Warwick	38	36.2 (5.1%)	34.7 (4.9%)	33.8 (4.8%)	3.4	7.0 (1.0%)	7.5 (1.1%)	1.45 (0.20%)
Stratford	69	75.0 (5.0%)	71.0 (4.7%)	77.8 (5.2%)	31.2	22.4 (1.5%)	17.3 (1.2%)	16.43 (1.09%)

N.B. 08/09 figures do not include works funded by Area Committees.

## 5. Area Committee Funding

5.1 Members have made two extra allocations for maintenance for 2008/9:-

- (i) A County wide Drainage Revenue Allocation of £500,000 to be spent on the priorities of the Area Committee.

- (ii) A £400,000 Capital Allocation to each Area Committee for Maintenance and Safety Improvement works.
- 5.2 The drainage allocation was made as a result of the backlog of blocked gullies and drainage repairs and so it is suggested that this money should be spent on unblocking gullies and repairing damaged pipes. Details of any specific blockages should be brought to the attention of the relevant Area Manager.
- 5.3 Decisions were made about the Capital Allocation at Area Committee meetings on 19 March 2008 and 7 May 2008. On 7 May the Strategic Director for Environment and Economy was given authority to determine priorities and schemes for the remaining unallocated funding in consultation with Members. At a seminar on 28 May Members agreed the schemes for most of the unallocated funding and said that the remaining £32,000 should be spent on drainage improvement.

## **6. Highway Maintenance Five Year Plan**

- 6.1 A list of sites which require a maintenance treatment, but which could not be included in this year's programme, has been drawn up. This is recommended practice as part of an asset management approach and provides Members, and the public, with information about future maintenance priorities. The roads in the Stratford Area contained in the County list are included as part of the Highway Maintenance Plan.

## **7. Conclusion/Issues**

- 7.1 Within Warwickshire public satisfaction levels and the road condition indicators show an overall improvement since 2000, but there is still much outstanding work as, county wide, over 13% of the network has defects and satisfaction levels, compared to other Council Services, are still relatively low.
- 7.2 Approval is requested for spending the Area Committees' Drainage Revenue Allocation on unblocking gullies and repairing damaged pipes.
- 7.3 Members may wish to comment on priorities for future work or on other issues which feature in the plan.

PAUL GALLAND  
Strategic Director for Environment and Economy  
Shire Hall  
Warwick

8 July 2008



## Stratford on Avon South Joint Committee - 24 July 2008

### Highway Maintenance Plan 2008/9 and Five Year List of Structural Maintenance Schemes

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## HIGHWAY MAINTENANCE PLAN

**2008/09**

### **1. Introduction**

- 1.1 In 2002 the Audit Commission said that the highway maintenance service in Warwickshire was a good (two star) service with promising prospects for improvement. This annual plan sets out the actions continuing to be taken to improve the service.
- 1.2 Maintenance work is carried out in accordance with the Warwickshire County Council Highways Maintenance Policy , the Transport Asset Management Plan and, in addition, any Member decisions on budgets
- 1.3 Information is provided about the way in which the highways budgets will be spent in 2008/9. Details of the structural condition of roads in the county are given and an assessment is made of progress towards targets. Other information such as public satisfaction with the service is also provided.

### **2. Maintenance Contract**

- 2.1 2008/9 is the fifth year of the seven year maintenance contract awarded to Carillion which covers all the highway maintenance work.
- 2.2 The contract is fulfilling one of the actions identified in the best value reviews. Work is continuing with the contractor to identify and implement improvements which can be made to ensure the best value for the maintenance spend.
- 2.3 To ensure all opportunities are taken to benefit from the contract an internal report and an external report were commissioned in 2007 to advise on and suggest further actions. Their recommendations for improvement are being investigated.
- 2.4 Progress reports on the contract were made to the Environment Overview and Scrutiny Committee in September 2006 and September 2007.

### 3. Targets

3.1 Members agreed three main targets following the best value review of the service.

- (i) **Target 1 - Condition of the road network**  
To reduce the backlog of repairs by 2010 by undertaking structural maintenance strengthening work on an average of at least 50km of B, C or D roads each year.
- (ii) **Target 2 - Public satisfaction**  
To increase levels of public satisfaction by at least 10% by 2010 as measured by net satisfaction and overall satisfaction score (these forms of measuring satisfaction were adopted in the best value review).
- (iii) **Target 3 – Safety**  
To reduce wet road skidding accidents in line with Government targets. Casualty Reduction Targets were stretched to 2009 by WCC and are stretched even further by the latest LTP.

### 4. Funding

- 4.1 An extra £500k allocation has been made available by Members for drainage.
- 4.2 The Area Committee maintenance and safety improvement funding continues in 2008/9.

### 5. Public Satisfaction

5.1 An important factor to be taken into account in deciding how maintenance funding should be allocated is the levels of public satisfaction with the service. Highway maintenance satisfaction surveys have been carried out in 2000, 2002, 2004, 2005 and 2007. The results for these surveys and the 2010 targets are shown in the table below.

	Net Satisfaction Score (percentage satisfied minus percentage dissatisfied)						Overall Satisfaction Score (ranging from 0-100)					
	2000	2002	2004	2005	2007	Target for 2010	2000	2002	2004	2005	2007	Target for 2010 (% increase from 2002)
Pavements/Footways	-15%	-17%	-22%	+5%	+2%	24%	42	41	40	49	49	57(+40%)
Rural Road Surfaces	-14%	-31%	-27%	+2%	+6%	10%	43	36	38	49	49	54(+50%)
Roadworks Planning	-10%	-24%	-20%	+10%	+3%	20%	45	39	40	51	49	58(+50%)
Drainage	+3%	-13%	-4%	+13%	+4%	20%	49	42	46	52	49	59(+40%)
Town Road Surfaces	+16%	-3%	+1%	+22%	+18%	45%	52	45	48	55	53	63(+40%)
Winter Maintenance	+24%	+29%	-3%	+24%	+35%	42%	56	57	47	55	59	63(+10%)
Rural Road Verges	+25%	+21%	+32%	+38%	+44%	33%	57	59	58	60	63	65(+10%)
Road Signs	+46%	+40%	+38%	+50%	+50%	54%	63	57	60	66	64	63(+10%)
Road Markings	+47%	+33%	+29%	+42%	+38%	46%	64	58	57	61	60	64(+10%)
Street Lighting	+55%	+54%	+46%	+54%	+58%	69%	70	66	64	65	68	73(+10%)

5.2 The main points to note from these surveys are:-

- (i) Compared to the 2002 survey satisfaction with all activities has improved. Compared to the 2000 survey satisfaction with all services has improved or remained the same except for road markings.
- (ii) Pavements/Footways, Rural Road Surfaces and Rural Road Verges have all had more funding and these show the highest increase in satisfaction.
- (iii) Satisfaction with Roadworks Planning and Winter Maintenance has increased. More attention has been paid in recent years to minimising disruption to the public.
- (iv) Satisfaction with Drainage has fallen in 2007 compared with 2005. It is presumed that this is due to the flooding in 2007.

5.3 It now seems unlikely that many of the 2010 satisfaction targets will be met. These were set by Members in 2002 as a consequence of the Best Value Review.

## 6. Surface Dressing and Structural Maintenance Treatments

6.1 The surface dressing and structural maintenance allocations are used to fund the following treatments

	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009
Principal Roads – Structural Maintenance	6km	5km	2.5km	3.4km	1.4km*	2.9km●
Principal Roads – Surface Dressing	22km	31km	13km	21.1km	22.2km	17.8km#
Non Principal Roads – Structural Maintenance	52km	80km	34.8km	29.0km	41.2km*	19.2km
Non Principal Roads – Surface Dressing	135km	195km	185km	172.8km	167.7km	174.6km
Carriageway Microasphalt				7.2km	15km	16.0km
Footways**	80km	91km	112km	220km*	143.7km*	146.2km

\*\*Note 1: Footways include Slurryseal treatment

\*Note 2: Includes Area Committee schemes

#Note 3: Includes 2.8km on A446 funded through Detrunking income

●Note 4: Includes 1.3km on A446 funded through Detrunking income

## 7. Structural Condition of the Network

7.1 This section gives carriageway condition information from road condition surveys. It is important to emphasise the fact that none of the surveys are able to measure road condition, and year on year changes in road condition, to a high degree of accuracy. This is because some of the surveys use sampling and only measure part of the network each year and others give different results when carried out at different times. The best the surveys can do is to pick up trends in condition over a period of years. The tables show the latest results available.

- 7.2 Significant development of machine based surveys has taken place in recent years to the extent that national Performance Indicators for the A, B and C roads are now derived from these SCANNER surveys.
- 7.3 The survey results for the **Principal (A) roads** are given in the following tables. These make up about 11% of the surfaced road network in the County.
- 7.3.1 National concern about the ability of the machine (SCANNER ) survey to accurately identify roads in need of repair has resulted in a change in the calculation method for 2007/08 for the BVPI.
- 7.3.2 The National Road Maintenance Condition Survey (NRMCS) shows an improving condition from 2000 but a deterioration from 2005 to 2006. The other principal road indicators show a possible deterioration in the past few years.
- 7.3.3 The present interpretation of the results is that the condition of the A roads in Warwickshire is above the National average and probably deteriorating slowly. This is felt to be acceptable as most of the lengths of A roads with defects are in urban areas and the present level of public satisfaction with the condition of urban roads is substantially higher than the level of satisfaction with rural roads.

<b>NATIONAL ROAD MAINTENANCE CONDITION SURVEY DEFECT INDICES</b>				
	<b>PRINCIPAL ROADS</b>			
	<b>Warwickshire</b>			<b>National Average</b>
	<b>Urban</b>	<b>Rural</b>	<b>Average</b>	
1993	30	70	50	106.2
1994	42	53	47	101.0
1995	53	37	45	100.1
1996	60	43	51	105.2
1997	55	39	47	106.4
1998	48	62	55	106.8
1999	43	61	52	109
2000	107	51	79	103.7
2001	46	68	57	101.2
2002	71	62	66	93.3
2003	52	65	58	91.8
2004	62	50	56	83.5
2005	51	35	43	74.3
<b>2006</b>	<b>65</b>	<b>52</b>	<b>58.5</b>	<b>70.3</b>

Note: The lower the value the fewer the surface defects

UKPMS BEST VALUE PERFORMANCE INDICATORS: 2001 to 2006			2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/2008
Percentage length of A Roads with defects above the threshold	UKPMS - CVI (BV96)	Fixed Merge method	<b>3.1%</b>	3.7%	-			-	-
		Variable Merge method		<b>9.2%</b>	<b>6.9%</b>	8.0%	9.9%	10.2%	
	SCANNER (BV96)					<b>27.79%</b>			-
	SCANNER (BV223) 05/06 method						<b>5%</b>	<b>6%</b>	6%
	SCANNER (BV223) 07/08 method								<b>4%</b>

The figures in bold are the annually reported Best Value Indicator for BV96 and BV223.

7.4 The survey results for the **Non Principal roads** are given in the following tables. The B and C roads make up about 35% and the D roads 54% of the surfaced road network in the County.

7.4.1 Except for the 2006 NRMCS results for B and C roads all surveys show improvements in the condition of the Non Principal B, C and D Roads since 2003. The condition of the roads is also above the National average.

NATIONAL ROAD MAINTENANCE CONDITION SURVEY DEFECT INDICES								
	CLASSIFIED ROADS ( B & C )				UNCLASSIFIED ROADS ( D )			
	Warwickshire			National Average	Warwickshire			National Average
	Urban	Rural	Average		Urban	Rural	Average	
1993	73	41	57	107.6	67	45	56	98.9
1994	65	67	66	107.5	60	65	62.5	100.7
1995	58	94	76	110.7	53	85	69	102.7
1996	51	68	59.5	102.6	71	129	100	108.7
1997	52	87	69.5	109.6	59	113	86	111.8
1998	45	117	81	111.5	104	235	169.5	109.3
1999	104	117	110.5	116.8	109	171	140	112.5
2000	70	107	88.5	111.3	121	156	138.5	119.1
2001	84	99	91.5	108.5	91	98	94.5	118.4
2002	88	73	80.5	109.2	86	98	92	122.2
2003	92	80	86	105.2	92	212	152	124.5
2004	69	81	75	105.1	101	153	127	118.9
2005	56	66	61	92.9	84	127	105.5	108.8
<b>2006</b>	<b>72</b>	<b>85</b>	<b>78.5</b>	<b>89.6</b>	<b>74</b>	<b>122</b>	<b>98</b>	<b>106.1</b>

Note The lower the value the fewer the surface defects

UKPMS BEST VALUE PERFORMANCE INDICATORS: 01 to 07		2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008
<b>Non Principal Classified Roads ( B and C roads)</b>								
<b>BVPI 97a –</b> Percentage of B and C Roads with defects above the threshold. (Approximate length 1300km)	UKPMS - CVI Fixed Merge Method	<b>11.4 %*</b>	8.91%	-	-			-
	UKPMS - CVI Variable Merge Method	-	<b>17.9%</b>	<b>18.19%</b>	<b>17.72%</b>	15.32%	13.2%	
<b>BV224a</b> (coverage as BV97a)	SCANNER 05/06 method	-	-	-	-	<b>9%</b>	<b>7%</b>	<b>7%</b>
	SCANNER 07/08 method							<b>3%</b>
<b>Unclassified Roads ( D Roads)</b>								
<b>BVPI 97b –</b> Percentage D Roads with defects above the threshold (Approximate length 2000km)	UKPMS - CVI Fixed Merge Method	<b>7.4%*</b>	4.46%	-	-	-		-
	UKPMS - CVI Variable Merge Method	-	<b>17.1%</b>	<b>18.54%</b>	<b>14.94%</b>	<b>14.6%</b>	<b>14%</b>	<b>14%</b>
<b>Footways</b>								
<b>BVPI 187</b> (Percentage of footways surveyed exceeding the threshold)**	UKPMS DVI survey	-	<b>81.9%</b>	<b>75.98%</b>	<b>34.8%</b>	<b>34.4%</b>	<b>31.75%</b>	<b>27%</b>

Figures in bold are the best value performance indicators.

\*The audit commission had reservations about these 2001/2002 figures.

\*\*The footway indicator is based on town centre roads only.

7.5 The survey results for town centre footways, given in the table above, appear to indicate a substantial improvement in their condition. In fact there has been a change in the way in which the indicator has been calculated. It is likely that the reported 2002/3 and 2003/4 figures for Warwickshire were twice what they should have been. The resulting figures still show a steady improvement which is a result of the maintenance work carried out to improve their condition.

## 8. Structural Maintenance Targets

8.1 The better the structural condition of the road network, the less routine maintenance work, such as patching, will be required. As a result, over the past

few years, extra funds have been allocated to resurfacing work to improve overall road conditions.

- 8.2 It has been estimated that road conditions will improve if about 5 km of principal Roads and 50 km of other roads are resurfaced each year. Past funding has almost allowed this target to be achieved for the non principal roads but not for the principal roads.

## 9. Surface Dressing

- 9.1 Roads are surface dressed:-

- (a) to halt surface deterioration;
- (b) to improve skid resistance: and
- (c) to seal them to prevent water penetrating and softening the foundation.

- 9.2 The highway maintenance policy document suggests that roads should be treated at the following frequencies.

A Roads	8 years
B Roads	10 years
C Roads	12 years
D Roads	15 years

- 9.3 These frequencies would be achieved if about 47 km of A roads and about 244 km of other roads were treated each year, making an allowance for roads which are surfaced, this means that approximately 40km of A roads and 190 km of other roads should be surface dressed each year to achieve the policy.

- 9.4 This year it is proposed to surface dress 18 km of A road and 189 km of other roads.

## 10. Street Lighting

### 10.1 General

Street lighting involves the maintenance of some 48,000 lights and some 7,650 illuminated signs which include bollards, vehicle activated signals, and Belisha beacons.

There are three main types of lights in the county. About 52% of lights are Low Pressure Sodium which give a monochromatic orange light and have a low energy use compared to other lamp types. Some 40% are High Pressure Sodium which give a golden white light but which use almost twice as much electricity as low pressure sodium lights. About 7.5% of the lights are Mercury lanterns which give a white light with a blue tint. They require the highest amount of energy for the light given out and contain potentially harmful chemicals.

The remaining lights are Metal Halide lights used in some town centres which give the whitest light but are high users of energy and do not give out as much light as equivalently rated High Pressure Sodium lamps.

The vast majority of the lighting stock are standard functional lights but there are a number of historic lights in towns including Stratford (where there are lights from around the world), Coleshill and Warwick (which still has a gas light).

## 10.2 Performance

In the past two years the contractor has achieved lighting levels substantially better than the contract minimum. The Contract asks for a performance of 98.5% lights working and the level achieved is consistently around the 99.5% lights working level. The present Best Value Performance Indicators for Street Lighting are BVPI 215a which is "The average number of days taken to repair a street lighting fault, which is under the control of the local authority", and BVPI 215b which is "The average time taken to repair a street lighting fault, where response time is under the control of a DNO." (Distribution Network Operator – old Electricity Board) The BVPI's for 2006/07 reported 215a as being 7.14 Calendar Days and 215b as being 30.58 Calendar Days. For the period April to December 2007 both Indicators have improved to 5.40 and 21.04 Calendar Days respectively.

As a result of improved efficiency from the Contractor's gangs and improved specification of the lighting equipment substantial cost reductions have been achieved in 2007/08.

## 10.3 Condition and Funding

Investments made in the 1980's mean that the overall condition of the street lighting stock in Warwickshire is better than in many counties but is getting to a stage where the age profile is increasing sharply. Approximately 14,500 lighting columns are over 30 years old which equates to around 30% of the stock.

The budget for street lighting has been increased in recent years to allow for the replacement of columns which have reached the end of their life. The amount of structural testing increased in 2005/06 to ensure that columns which were unsafe were identified but also to ensure that older columns which were still structurally sound were not replaced unnecessarily. This level of testing continues. The 2008/09 allocation for column replacement is felt to be adequate to keep the lighting stock safe but will need to be increased in the future as the lighting stock ages.

## 10.4 Energy

A large part of the street lighting budget is spent on energy. There is presently a contract in place with EDF for the purchase of 100% Green Energy. This is due to be relet in July 2008. The proposal is to combine the purchase of building and street lighting energy through ESPO to achieve cost savings. However with the present high cost of oil there is concern that there may still be a substantial increase in price when the contract is relet.

The Environment Overview and Scrutiny Committee considered a report in January 07 suggesting that, to save electricity, street lights could be switched off in the early hours of the morning. The suggestion was not supported but at the



September 07 meeting Members agreed to a small trial of street light dimming in the Warwick area. Officers have recently identified suitable equipment for the trial and these will be installed on selected lights during June and July 2008.

The actions being taken by the Street Lighting Section to reduce energy consumption include the use of low wattage LED's in Belisha Beacons, Refuge indicators and Bollards, and replacing 1 watt photocells with ¼ watt photocells.

#### **10.5 Lighting Improvements**

Street Lighting is installed to improve safety and to reduce crime and fear of crime. If lighting improvements are required they need to be funded from Area Committee or other sources.

In general improved lighting increases energy consumption although when Mercury lanterns are replaced the lighting levels can be improved with a very slight saving in energy. The present approach is to take every opportunity to replace the existing mercury lanterns in the county.

### **11. Routine Maintenance Activities Area Response Teams**

- 11.1 Routine maintenance of the highway network is divided into five areas coincident with the district council boundaries. In 2007/8 there was an increase from 14 to 15 Area Response Teams(ARTs) to reflect the detrunking of the A446 and A35. In 2008/9 the number of gangs will be reduced to 13 to reflect cost savings and efficiency gains. There will be continue to be three drainage teams, compared with two gangs in 2005/6, to help address the backlog of drainage works. Four ART teams will deal with category 1 and 2 safety defects identified by the inspection teams within the urban areas and one signage team. There will be five ARTs dealing with emergency and planned maintenance activities.

There is typically between 3-8 road patching gangs, depending on the time of year and related work activities such as surface dressing, that will undertake larger patch repairs to carriageways.

Changes in planning, management and methods over the past 2 years have facilitated a substantial increase from some 18,000sqm in 2006/7 to some 34,000sqm of patching work in 2007/8 which has help reduce insurance claims by 25%. A similar quantity of patching of 34,000 sq m in 2008/09 is planned as part of mitigating further insurance claims.

### **12 Customer Service Centre and Web Site**

In May 2006 the highway maintenance customer services centre was merged with the corporate call centre. Each year the call centre handles approximately 33,000 calls. The 2007 June-July floods and follow up drainage queries resulted in some 3000 extra drainage calls. The increased patching resources and changes to management of pothole defects resulted in some 2000 less pothole calls.

The County Highways website is increasingly seen as a key information source for key stakeholders to find general answers to frequency asked questions and general application forms for highway related matters.

## 13. Winter Service

13.1 In line with the recommendations of the Best Value Review reviews of the Winter Service continued during the summer of 2007, involving the Highway Maintenance Contractor. The reviews had resulted in :-

- (i) Further optimisation, revision and changes to the routes to include minor variations in the network and changes in priorities.
- (ii) Introduction of optimised 'Emergency Routes' to enable rapid response to variations in weather conditions.
- (iii) Optimisation of the 'mini' gritting routes, to include a third route covering roads with physical width or weight restrictions in order to improve performance and reduce the amount of 'dead' travel time.
- (iv) The asset replacement programme has resulted in a reduction in the average age of the vehicles within the strategic fleet. The benefits have been improved reliability, and reduced maintenance costs of the fleet. The replacement vehicles have been provided with interchangeable bodies so that the operational efficiency of the fleet has been improved, with summer usage as bulk haul vehicles for the surface dressing operations, which in turn has provided cost benefits within this activity.
- (v) A fleet of 7 loading shovels were purchased to replace hired in equipment, which has reduce operating costs and provides greater flexibility of use throughout the year.
- (vi) The introduction of Snow, and Severe Weather Plan with the establishment of the conditions and criteria for the operation of a Snow Desk, to help in the planned response to snow conditions.
- (vii) Publication to a wider audience of information on the provision of the service through the Warwickshire website.
- (viii) An additional route was introduced to treat two road, A446 & A435, which were detrunked by the Highway Agency and transferred to the County on 28 January 2008. Salting treatment of these roads was commenced within an hour of the time that that detrunking officially took place.

13.2 During the 2007/8 winter season 54 full grits were completed (against 34 for the same period in 2007/8, and the number expected in a year of 40). 10 of these involved gritting at the higher spread rates. There have been no treatments following snowfall during the winter season .

13.3 A further Winter Service Review will be undertaken during the summer of 2008 looking at all aspects of the service provided during 2007/8 and the preparations required for 2008/9, and will include:-

- A review of weather monitoring and forecasting provision.
- Further safety improvements to the gritting fleet

- Improved web information.
- Renewal of the contract for the supply of road salt using joint procurement opportunities through ESPO.
- Continued monitoring of the performance and effectiveness of the Safecote additive to salt.
- Length of network to be treated, particularly the identification of roads which do not meet County policy.

## **14. Patching**

- 14.1 Patching work is carried out to arrest localised deterioration of roads and pavements and keep the roads and pavements in a safe condition. Potholes and other defects are dealt with when they are found during the regular inspections or when they are reported by the public. Patching work is also undertaken prior to carriageway surface dressing or pavement slurry sealing. Revenue resources for patching is historically limited such that there is a fluctuation in potholes on the Network, which is greatly influenced by seasonal weather. Priorities will be strictly focussed on ensuring that the network is safe.
- 14.2 In 2007/08 the amount of patching undertaken was nearly double the amount carried out in 2006/07. For 2008/09 it is intended to maintain this higher level of patching of about 34,000m<sup>2</sup>.
- 14.3 Programming and planning of patching gangs is now based centrally in order to ensure more effective use of resources. Work is being identified well in advance so that the contractor has the optimum opportunity to plan and organise the work effectively.

## **15. Road Markings and Studs**

- 15.1 2007/8 was a successful year in delivering the programme to budget and time through “One Team” meetings with representatives from Warwickshire County Highways, Carillion and the specialist subcontractors.
- 15.2 As part of trialing new materials and processes use was made of a fully computerized Ecodyn system to measure the reflectivity of road markings on some 397km of “A” and “B” roads. The measuring systems is attached to a vehicle that measures the reflectivity of lines and compares that to relevant standards. The trial identified that some 30% is substandard and suggests an average replacement 3.3 years. The trial proved a useful process.

## **16. Verge and Tree Maintenance**

- 16.1 In 2007/08 the county policy of cutting grass three times a year was achieved. Area Surveyors continue to address the problem of overgrown hedges/trees obstructing road signs by the introduction of serviceability inspections. Being a wet year there was a greater extent of seasonal growth.

- 16.2 Operation Ragwort was very successful in 2006, targeting problem areas throughout the County with a significant reduction in public calls to just 37. (79 calls in 2005 and 146 in 2004). 2007/8 was another successful year in dealing with Ragwort, particularly considering the wet year.
- 16.3 Japanese knotweed will continue to be dealt with as part of a County wide spraying programme.
- 16.4 The programme of tree inspection in the rural areas and the urban area of Stratford continued in conjunction with the Property Services Department (The Forestry Section has now become part of the Countryside Recreation Division of this directorate). This is enabling officers to determine the extent of risk from dangerous highway trees and the amount of funding required to bring this risk to an acceptable level. A Tree Strategy for all trees within the County was approved in January 2007. It includes policies specific to highway trees and is aligned with the recently published national code of practice.
- 16.5 In January 2007 the severe gales brought down some 300 trees. The following wet Spring and Summer resulted in a steady flow of fallen down tree work due to saturated soils

## **17. Gully Emptying and Drainage**

- 17.1 Over the past 2 years gullies have generally being emptied at a frequency of 1-2 years. The new Global Position Tracking System (GPS) installed on the gully machines is helping in the development of a fuller inventory of the gullies and drains on the highway network. One key feature is the identification of blocked or damaged systems and gullies not emptied due to parked vehicles. A proactive approach to returning to remedy these problems is being developed.
- 17.2 Three ARTs will be dedicated to drainage work under the control of the Area teams. The additional Member funding from 2008 will support an additional gang and other cyclic maintenance activities.

Further drainage gang resources will be made available to meet the specific schemes determined by area committees who have allocated funds for specific priority drainage schemes.

- 17.3 In 2008/9 it is proposed to visit some 85,000 out of 96,000 gullies on the highway network.

Use of new GPS tracking systems has facilitated the start of variable frequency cleaning based on "need". The saving of resources has allowed resources to be targeted at identified problem sites. The savings in variable frequency cleaning has allowed over 1000 gullies to be cleared by extended jetting in 2006/7

- 17.4 The changes in winter weather poses the challenge to increase drainage resources to ensure the backlog of drainage works does not grow to unacceptable level.

## **18. Signs**

18.1 Three significant issues with sign maintenance are:-

- (i) The fact that there is a backlog of signs which need to be replaced:
- (ii) The need to check that the signs which have been installed in the past (particularly within urban areas) are still required.
- (iii) In 2007/8 there was a significant rise in the theft of metal signs, reflecting the rise in steel prices

18.2 A further issue which will need to be dealt with in the next few years is the need to develop an inventory of signs (non illuminated). This is required to ensure better planning of maintenance expenditure.

18.3 The exercise of de-cluttering unnecessary sign in town and on routes is continuing as resources allow.

## **19. Co-ordination of Roadworks**

19.1 The Department for Transport (DfT), in the Traffic Management Act 2004 (TMA), looked to reduce congestion by better co-ordination of roadworks and therefore are updating the existing legislation that governs roadworks, the New Roads and Streetworks Act 1991 (NRSWA). The main aim of these changes is to improve co-ordination and management of works and other activities on the highway and give more effective powers and sanctions over utilities' street works. Essentially from April 1<sup>st</sup> 2008 this will require the registering of all the works that the County Council itself carries out on the highway network on a central register.

19.2 A key element within these changes is the demonstration of parity of treatment with the utilities and the measurement of this authority's performance in comparison to utilities, against key performance indicators (KPI) set by the DfT. Rather than being used as a means of identifying poor performance, it is considered essential that the KPIs encourage a culture of continued improvement by all works promoters within the highway.

## **20. Safety**

20.1 Much of the maintenance activity is designed to ensure the highway network can be used safely. Patching, winter maintenance, street lighting, drainage, grass cutting etc, all have a role to play in keeping the network safe and the structural maintenance and surface dressing work is designed to keep the network from deteriorating and becoming unsafe. County Highways is increasingly involved with other groups within EED to combine maintenance, new works and regeneration projects to improve the safety of local areas and routes.

20.2 County Highways is increasingly working in unison with the Road Safety Unit to prioritise additional maintenance spending to see how this may reduce accidents. In 2006/07 the top 10 accident routes in the County were reviewed and appropriate actions undertaken. A similar process is in place in

2008/9 and key routes will be targeted such as the Fosse Way, that passes through 3 District Boundaries.

## **21. Town Centres**

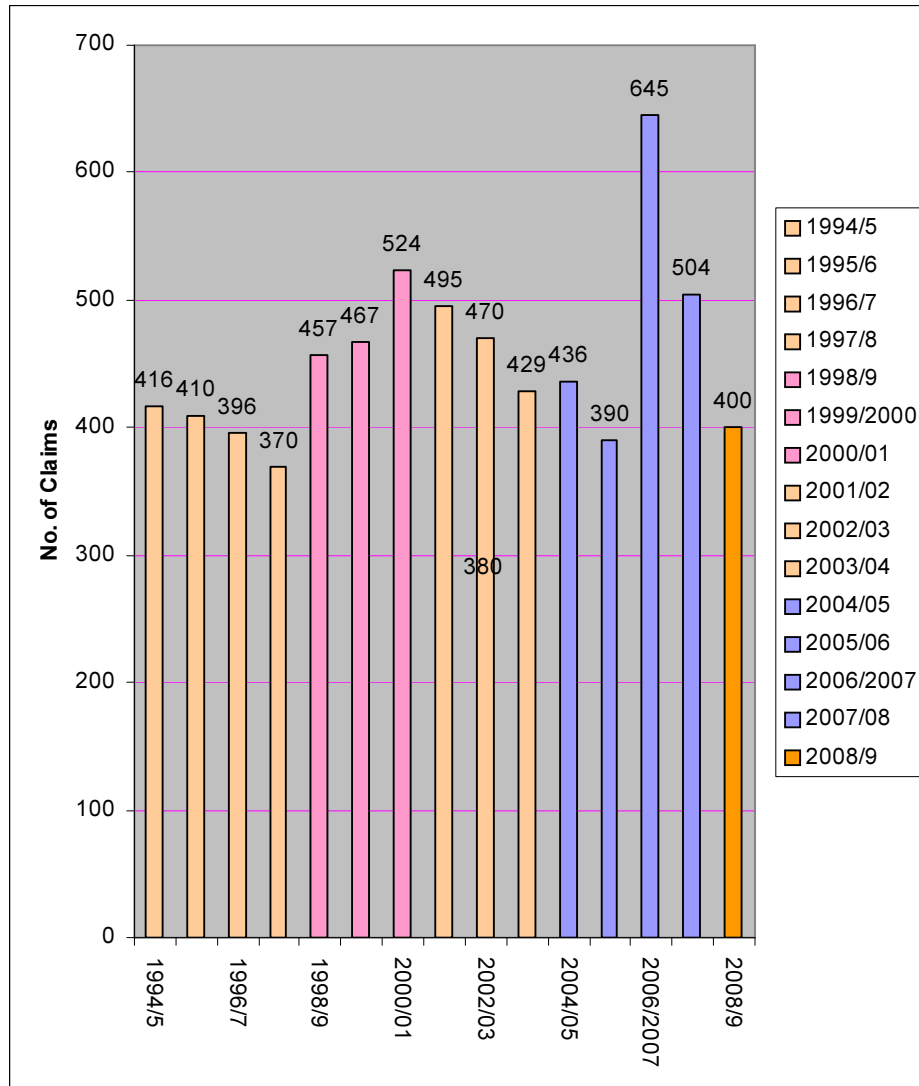
- 21.1 The priority for highway maintenance spending has traditionally been for maintaining safety and for maintaining the structural condition of the road. Maintaining the appearance of the network has generally been considered to be a lesser priority with limited funds.
- 21.2 This is now changing with the recognition that the appearance of an area, as measured for instance by the Streetscape Index, has an important role to play in the economy and regeneration of an area.
- 21.3 Highway maintenance policies are being developed to take account of the need to ensure that town centres are well maintained as a matter of course. A Town Centre Maintenance Policy has been approved by Members. In addition the responsibility for promoting and monitoring the streetscape index in town centres will be taken on by the highway maintenance area surveyors. The use of Streetscape Appearance Index was developed as part of WCC's regeneration activities in 2001 and has been cascaded to several Warwickshire town centres. Funds allocated by the Warwick, Stratford and Rugby Area Committees by Members in Spring 2006 in support of Streetpride Activities has helped deliver targeted improvements in Kenilworth and Whitnash, Stratford & Alcester, Rugby and selected routes respectively.
- 21.4 Over the past 12 months continued improvements to the level of maintenance to items of public realm in town centres were carried out through the multi disciplinary activities of EED and district authorities. The improvements have been recognised by Britain in Bloom reports and is reflected in 12 Warwickshire Town's gaining awards. Extensive Streetscape painting was carried out in Kenilworth and Whitnash in 2006. In 2007 streetscape painting was carried out in Henley and in Wellesbourne in the Spring of 2008. Following the detrunking of the A35 it is hoped improvements can be targeted for Studley.
- 21.5 County Highways works closely with District, Borough, Town and Parish Councils and other local organisations. Notable groups include the North Warwickshire Public Realm Partnership which fostered very strong partnership working practices.

## **22. Insurance**

- 22.1 Insurance claim data is now reviewed quarterly and an annual meeting held to drive forward improvements. Data taken from the quarterly reviews has led to targeting of resources to sections of highway that receive a disproportionately high number of claims. Efforts are being made to streamline the processes involved from the identification to the repair of potential hazards in order to minimise the risk of claims.
- 22.2 In 2006/7 internal seminars were arranged to cascade best practice in dealing with insurance claims so that the rate of repudiating claims is increased. There

is a growing culture of “no win – no fee” legal services making claims against highway authorities.

- 22.3 2006/7 saw a rapid rise in claims due to former reductions in patching, and increasing frequency of freeze-thaw conditions over the mild winter. To address this situation the patch resources were increased to deliver an increase from 18000sqm to some 34000sqm in 2006/7. Changes in materials, processes and cluster working has resulted in a 22% reduction in claims presented to County Highways. It is hoped that claims will reduce to circa 400, or less, in 2008/9.



Note – The 2008/09 column represents a target figure

## 23 Quality Assurance

- 23.1 In April 2008 , following an independent audit, County Highways retained its BSI accreditation.
- 23.2 In March 2006 County Highways Depots received ISO14001 accreditation for environmental management.

# Sustainability

## 24 Sustainability and Asset Management

24.1 In promoting the Department's purpose and the government's strategy for sustainable development, County Highways aims to monitor, maintain and develop the highway asset in as an environmentally friendly manner as possible. The following points give an idea of the work being undertaken towards these aims:-

- Reuse/recycling of secondary aggregates e.g. road planings and surface dressing chippings has been. Leicester Lane Depot has had since autumn 2005, all the appropriate "exemptions" from the Waste Management Regulations, to allow the storage and processing of construction waste. This venture is now up and running.
- Use of more sustainable techniques for routine maintenance developed during 2006, such as use of "Rhino Patch" and "Bagela" asphalt recyclers.
- Continuous inspection of the County's roads in accordance with national standards. Development of the UKPMS system continues.
- Collection of highway asset data including street lights, illuminated signs and gullies etc.

## 23. Communications

25.1 In order to improve communications within the County, department and within County Highways and Carillion, we will continue to develop our quarterly newsletter and web pages. We will also continue to contribute to the department's e-government requirements.

## 26. 2008/9 Works Programme

26.1 Lists of schemes have been produced showing the planned maintenance work proposed during the period 1 April 2008 to 31 March 2009. The structural schemes have been selected using a maintenance priority assessment system. Priority is given to sites where the defects in the road might become dangerous or where substantial patching work would be required, if a structural scheme was not undertaken.

26.2 The schedule may be subject to change as a result of factors such as:-

- (i) Utility work clashing with the proposed roadworks.
- (ii) More detailed scheme costs being determined.
- (iii) Consultation.



## **27. Five Year Lists of Maintenance Schemes**

- 27.1 A 5 Year List of roads which require a structural maintenance treatment was approved by members in 2004. The roads included are those which have sufficient defects to justify a structural maintenance treatment. Other roads will be added if they deteriorate from their present condition. This list has been revised for 2008.
- 27.2 The list includes a number of A roads and some footways. There are limited numbers of carriageway sites included in urban areas. This is because most of the roads in urban areas are treated by surface dressing or by resurfacing and do not normally require a strengthening treatment

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2008/09 STRATFORD AREA MAINTENANCE SCHEMES

Parish/ Settlement	Rd No	Road		SITE	
		From	To	From	To
<b>STRATFORD AREA CARRIAGEWAY RESURFACING 08/09</b>					
Ullenhall	D5023	Forde Hall Lane	Mockley Manor	Ullenhall lane	Ullenhall lane
Ullenhall	D5133	Watery Lane	Berry Mill	Ullenhall Street	Ullenhall Street
Wood End	B4102	Earswood Common	At M42 Overbridge		
Tanworth in Arden	C105	Penn Lane	Broad lane	end of houses	end of houses
Blunts Green	E5280	Railway Cottage	Deans Green	end of houses	end of houses
Earlswood	B4102	Shutt lane/The Common	C90 Junction		
Tanworth in Arden	D5026	Aspley Heath Lane	Broad lane	Blind Lane	Blind Lane
Wixford	D5431	Church Lane	Wixford Road	end	end
Billesley	C100	Billesley Road	Billesley Manor	Aston Cantflow Road	Aston Cantflow Road
Brailles	D6676	Traits Ford Road	400m North of C56 for 500m		
Armscote	D6537	Berryfields Lane Armscote	All		
Ashorne	C167	Ashorne Road	Through Village		
Wellesbourne	B4087	Newbold Road	Mourdaunt Road	Flint Hall	Flint Hall
Wellesbourne	C96	Wellesbourne Road	B4086 for 1 km		
Long Compton	D6694	The Hollows	All		
Brailles	D6641	Lower St Dennis Road	B4035	Farm Access	Farm Access
Armscote	C49	Armscote Road	Armscote Village	Berryfields Lane	Berryfields Lane
Alveston	C98	Loxley Road	Two sections		
Priors Hardwick	C35	Wormleighton Rd	Hardwick Hill	Welsh Road Crossroads	Welsh Road Crossroads
Priors Hardwick	C59	Welsh Rd	Church end	cross roads	cross roads
Priors Hardwick	D2422	Church End Rd	Stoneton Road	Public House	Public House
Farnborough	D5023	Main Street	Banbury Road	Eynsford House	Eynsford House
Southam	D2355	Linley Road	Mayfield Road	House No. 13	House No. 13
Southam	D2370	Park Lane & St James Road	High Street	House No. 21	House No. 21
<b>STRATFORD AREA CARRIAGEWAY MICROASPHALT 08/09</b>					
Priors Hardwick	D2422	Church End Rd	Pub	C59 Welsh Road	C59 Welsh Road
Farnborough	D6413	Main Street	D6414 Hay Pool	C113 Mollington Road	C113 Mollington Road
Wilmcote	C41	Aston Cantflow Rd	C41 Station Road	Track	Track
Southam	D2396	Stowe Drive	D2375 Pendike Street	End Road	End Road
Southam	D2395	Browns Bridge Road	C210 Banbury Road	D2396 Stowe Drive	D2396 Stowe Drive
Southam	C211	Daventry Street	C210 High Street	D2369 Wood Street	D2369 Wood Street
Stratford	D6216	Bridge St +Rbout	D6233 High Street	D6236 Waterside	D6236 Waterside
Stratford	D6235	Chapel Lane	D6231 Church Street	D6236 Waterside	D6236 Waterside
Farnborough	D6414	Hay Pool	D6413 Main Street	D6413 Main Street	D6413 Main Street
Stratford	A3400	Clopton Bridge	All		
Wellesbourne	B4087	Newbold Road	B4086 Charlecote Road	Mordaunt Road	Mordaunt Road

Parish/ Settlement	Rd No	Road		SITE	
		From	To	From	To

**STRATFORD AREA CARRIAGEWAY SURFACE DRESSING 08/09**

Lower Shuckburgh	C74	Sawbridge Road	A425 Shuckburgh	County Border	County Border
Long Itchington	D2342	Collingham Ln	C33 Stockton Road	Surface Change	Surface Change
Long Itchington	C97	The Green	A423 Marton Road	C33 Leamington Road	C33 Leamington Road
Long Itchington	D2341	Green End	C33 Leamington Road	End	End
Long Itchington	C33	Stockton Road	A423 Southam Road	School Entrance Nr speed limit restriction	School Entrance Nr speed limit restriction
Bishops Itchington	C51	Knightcote Road	B4451 Station Road	Surface Change	Surface Change
Lighthorne	D6353	Moreton Morrell Road, Lighthorne	B4455 Fosse Way	D6354 Church Lane	D6354 Church Lane
Moreton Paddox	C96	Wellesbourne Road	Fosseway	Moreton Morrell turn	Moreton Morrell turn
Loxley	C72	Goldicote Road	Dancers Drive	Goldicote Lodge	Goldicote Lodge
Fosseway	B4455	The Fosseway	A422 Banbury Road	Brick Kiln	Brick Kiln
Kineton	B4086	Banbury Road	D M Kineton R/way Xing	Radaway Road	Radaway Road
Tysoe	A422	A422 Banbury Road	C54 Tysoe Road	D6456 Radway Road	D6456 Radway Road
Tysoe	C55	Epwell Road	County Boundry	C54 Main Street Tysoe	C54 Main Street Tysoe
Tysoe	C69	Sugarswell Road	A422 Bandbury Road	County Border	County Border
Oxhill	C108	Main Street	C53 Whatcote Road	D6471 Green Lane	D6471 Green Lane
Tysoe	C108	Oxhill Road	C108 Surface Change	C54 Mian Street Tysoe	C54 Mian Street Tysoe
Lower Brailles	C54	Sutton Lane	from Farm	to Golf Course	to Golf Course
Sutton Un.Brailles	C54	Stourton Road	D6674 Traitors Ford Road	C54 Main Street	C54 Main Street
Sutton Un.Brailles	C56	Main Road	C54 Stourton Road	D6683	D6683
Little Wolford	C54	Little Wolford Road	A3400 London Road	Nethercote Farm	Nethercote Farm
Barton	C107	Barton Road	South View	Rectory Farm	Rectory Farm
Little Compton	C115	Oakham Road	Oakham Cottage	Old Quarry Bend	Old Quarry Bend
Long Compton	C115	Oakham Road	C70 Rollright Road	Old Quarry Bend	Old Quarry Bend
	C70		A3400	C15	C15
Stratford	A3400	Shipston Road	Seven Meadows Island	Puffin Crossing	Puffin Crossing
Stratford	C98	Loxley Lane	B4086 Tiddington Road	S/C by farm	S/C by farm
Stratford	A3400/A439	Warwick Rd/Bridgeway/Bridgefoot	Welcome Rd inbound	whole gyratory as marked back to Welcome Rd	whole gyratory as marked back to Welcome Rd
Stratford	C77	Windsor Street	C76 Wood Street	A3400 Birmingham Road	A3400 Birmingham Road
Stratford	C76	Greenhill Street	C77 Windsor Street	A4390 Grove Road	A4390 Grove Road
Stratford	C77	Rother Street	C76 Greenhill Street	C77 Evesham Place	C77 Evesham Place
Stratford	A4390/C77	Grove Road/Evsham Place	C76 Greenhill Street	Splitter Island Severn Meadows Road	Splitter Island Severn Meadows Road
Stratford	A4390	Arden Stret	A3400 Birmingham Road	A439 Grove Road	A439 Grove Road
Snitterfield	C94	Sandbarn Lane	A439 Warwick Road	A46 Stratford B/pass	A46 Stratford B/pass
Snitterfield	C94	Heath End Lane	A46 Straford bypass	SC ????	SC ????
Snitterfield	C93	Snitterfield Lane	S/C Heath End Lane	S/C Before brook	S/C Before brook
Langley Green	C39	Salters Lane	A3400 Stratford Road	Surface Change	Surface Change
Wotton Wawen	D5220	Pennyford Lane	B4089 Alcester Road	A3400 Stratford Road	A3400 Stratford Road
Coughton	D5355	Coughton Field Lane	A435	to B4089	to B4089
Spernal	C39	Spernal Lane	A435	C46	C46
Outhill	C99	Morton Bagot Road	A4189 Warwick Road	2007 SD Change	2007 SD Change
Blunts Green	D5140	Hall End Road	D5137 Deans Green Road	End	End
Blunts Green	D5131	Gentlemans Lane	D5023 Forde Hall Lane	C21 Ramshill Lane	C21 Ramshill Lane
Blunts Green	D5132	Perry Mill Lane	D5131 Gentlemans Lane	C21 Moat Farm Lane	C21 Moat Farm Lane

Blunts Green	C21	Moat Farm Lane	C20 Tanworth Lane	C208 Ullenhall Road
Tanworth	C105	Penn Lane	D5027 Rushbrook Lane	Spitter Island
Earlswood	B4102	Earlswood Comon	C89 Umberslade Road	B4010 Broad Lane
Earlswood	C137/C90	Tythe Barn lane	B4101 Broad Lane	C89 Cut Throat Lane
Stockton	D2329	Manor Road	D2328 Church Street	End
Southam	D6244	Kineton Road	C211 Warwick Road	D2379 Hurst Road
Southam	D23790	Hurst Road	D2377 Beech Close	D2644 Kineton Road
Southam	D2377	Beech Close	D2381 Tudor Lane	End
Southam	D2381	Tudor Lane	D2377 Beech Close	D2380 Abbey Lane
Southam	D2378	Elm Close	D2381 Tudor Lane	End
Southam	D2352	Abbey Close	D2380 Abbey Lane	end of road

Parish/ Settlement	Rd No	SITE	
		Road	Road
		From	To
<b>STRATFORD AREA CARRIAGEWAY SURFACE DRESSING 08/09(cont.)</b>			
Southam	D2643	Old Road	C210 Banbury Road
Southam	D2364	St James Cres	D2363 Mill Crescent
Southam	D2363	Mill Crescent plus dead end	D2364 St James Cres.
Southam	D2400	Mill Close	D2363 Mill Crescent
Southam	D2361	Hollywell Road	D2363 Mill Crescent
Southam	D2358	Hillyard Road	C36 Welsh Road West
Southam	D2360	Hill Top Close	D2358 Hillyard Road
Southam	D2359	Glebe Road	D2358 Hillyard Road
Southam	D2393	Windmill Way	C36 Welsh Road West
Southam	D2391	Gorsley	D2393 Windmill Way
Southam	D2390	Bascott Rise	D2393 Windmill Way
Southam	D2392	Old Ford Ave	D2393 Windmill Way
Southam	D2356	Springs Cres	C36 Welsh Road West
Southam	D2355	Linley Road	D2354 Mayfield Road
Southam	D2402	Ploughmans Holt	D2354 Mayfield Road
Southam	D2357	Grange Close	C36 Welsh Road West
Bishpos Itchington	D6379	Ladbrook Road	D6372 Fisher Road
Bishpos Itchington	D6384	Hambridge Road	D6382 Old Road
Bishpos Itchington	D6377	Dadglow Road	D6375 Lakin Road
Bishpos Itchington	D6376	Huckson Road	D6377 Dadglow Road
Burton Dasset	D6405	Burton Dasset Road	D6394 Burton Hills
Burton Dasset	D6394	Burton Hills	Cattle Grid
Gaydon	D6408	Chuch Lane	B4100
Lighthorne Heath	D6724	Kenilworth Road	D6726 Marston Road
Lighthorne Heath	D6722	Cromwell Place	D6726 Marston Road
Lighthorne Heath	D2446	Mallory Road	D6725 Leam Road
Lighthorne( both sides)	D6357	Mountford Close Lighthorne	C96 Bishops Hill
Kineton	D6980/E698	Market Square/School Lane	Southam Road
Combrook	D6364	Combrook Road	River Bridge
Combrook	D6366	School Lane	Combrook Road
Wellesbourne	D6321	Church Walk	C72 Bridge Street
Wellesbourne	D6315	Cherry Orchard	B4086Warwick Road
Loxley	D6311	Redhill Road	A429
Ettington	D6490	Avon Fields	Banbury Road
Pilerton Priors	D6821	Kiblers Lane	A422 Bandbury Road
Pilerton Priors	D6473	Chapel Lane	C31 Halford Road
Tysoe	D6468	Sandpits Road	C108 Oxhill Road
Tysoe	D6715	Sandpits Close	D6468 Sandpits Road
Winderton	D6651	Winderton Road	D6650 Compton Wynyate
Winderton	D6652	Winderton Lane	D6551 Winderton Road
Sutton Un.Brailles	D6674	Taritors Ford Lane	Greenhill Barn
Long Compton	D6687	Buryway Lane	C107 Barton Road
Little Compton	D6708	Brewery Lane	A44 London Road
Stretton on Fosse	C116	Tankards Hill	County Boundry
			D2380 Abbey Lane
			D2367 St James Road
			D2364 St James Cres.
			End
			End
			D2361 Hollywell Raod
			End of road
			End of road
			D2359 Glebe Road
			End of road
			End of road
			End of road
			to end of road
			D2354 Mayfield Road
			end of road
			to end of road
			Surface Change
			Surface Change
			End
			D6377 Dadglow Road
			End
			Cattle Grid
			St Giles Road
			End
			End
			End
			End
			Southam Road
			B4086 Spring Hill
			End
			End
			End
			to C72
			to end
			C31 Halford Road
			End of Priory Lane
			C54 Mian Street Tysoe
			End
			Surface Change
			Surface Change
			C54 Stourton Road
			A3400 Shipston Road
			C115 Brewery Row
			D6568 Darlinscote Road



Parish/ Settlement	Rd No	SITE	
		Road	From To

**STRATFORD AREA FOOTWAY RECONSTRUCTION 08/09**

Claverdon	D5260	Highcroft	All		
Wooton Wawen	A3400	A3400 Bearley Cross	Pub		Railway Bridge
Stratford	A422	Banbury Road	Bridgetown		Manor
Stratford	D6220	The Willows North	All		
Stratford	D6210	Cottage Lane	Light Column No.14		Public Footpath

**STRATFORD AREA FOOTWAY SLURRY SEALING 08/09**

Alcester	C205	Kinwarton Rd	Gunnings Bridge	Ten Acres	
Alcester	D5421	Barlichway	Winchcoombe Rd	End	
Alcester	D5422	Riddell Close	Throckmorton Rd	Winchcoombe Rd	
Alcester	D5423	Winchcoombe Road	Gerard Rd	Throckmorton Rd	
Alcester	D5416	Throckmorton Rd	Ten Acres	St Marys Rd	
Bidford	D5478	Crompton Ave	Waterloo Rd	3	
Bidford	C215	Waterloo Rd	Home Farm Trust	Mini island	
Brailes	D5561	Rectory Ln	All		
Brailes	D6652	Saltway Ln	All		
Ettington	A422	Banbury Road	A429	towards Pillerton Priors	
Halford	A429	Main St	Queen St	PH	
Halford	D6630	The Close	All		
Halford	D6630	The Close	Idlicote Rd	End	
Hampton Lucy	D6176	Link footpath	Snitterfield Rd	The Langlands	
Harbury	C43	Temple End	Meadowbank	D6054 Park Lane North side	
Harbury	C43	Temple End	Temple House Cottage	D6054 Park Lane South Side	
Harbury	C43	Park Lane	All		
Harbury	C43	South Parade	All		
Harbury	D6057	Constance Drive	All		
Harbury	D6058	Margaret Close	All		
Harbury	D6059	Penelope Close	All		
Harbury	D6061	Manor Road	All		
Harbury	D6054	Bush Heath Lane	All		
Harbury	D6056	Ivy Lane	All		
Harbury	D6051	Dovehouse Lane	All		
Harbury	D6051	Frances Road	All		
Harbury	D6717	Drinkwater Close	All		
Harbury	D6041	The Beeches	All		
Harbury	D6042	Leycester Close	All		
Henley	D5119	Arden Rd	A4189 Warwick Rd	End/Castle Rd	
Henley	D5226	Station Road	High St	A4189	
Kineton	B4086	Warwick Rd	Railway bridge	Bridge St	
Long Compton	D6686	Compton Court	All		
Long Itchington	D2342	Collingham Lane	Stockton Rd	Bend	



Lower Quinton	D6519	The Close	All		
Lower Quinton	D6520	Magdalan Close	Main Rd		End
Norton Lindsey	D5508	Norton Lea	All		
Salford Priors	C215	Station Rd	A46		VNS
Salford Priors	C215	Station Rd	Church		New Cottages
Shipston	A3400	New St	Gyratory		London Rd
Shipston	D6619	Clarke Cl	Hanson Ave		No 9/10

Parish/ Settlement	Rd No	Road		SITE	
		From	To	From	To

**STRATFORD AREA FOOTWAY SLURRY SEALING 08/09(cont.)**

Southam	C36	Welsh Rd West	Coventry Rd	Nr Mill Cres	
Southam	D2354	Mayfield Rd	Welsh Rd West	Linley Rd	
Southam	D2356	Springs Cres	Welsh Rd West	Mayfield Rd	
Southam	D2357	Grange Ct	Welsh Rd West	End	
Southam	D2396	Stowe Dr	Pendicke St	End	
Southam	D2395	Browns Bridge Rd	Banbury Rd	Stowe Dr	
Southam	D2398	Elm Bank	Stowe Dr	End	
Southam	D2397	Spire Bank	Stowe Dr	End	
Stratford	D6209	Church Lane	All		
Stratford	D6218	Shottery Rd	All		
Stratford	D6213	Shottery Gytratory	All		
Stratford	D6091	Woodlands Rd	All		
Stratford	D6087	Oakleigh Rd	All		
Stratford	D6088	Highfield Rd	All		
Stratford	D6086	Ash Grove	All		
Stratford	D6090	Elm Rd	All		
Stratford	D6092	Westfield Close	All		
Stratford	D6092	Eastfield Close	All		
Studley	C38	Littlewood Green	A448	Toms Town	
Studley	D5173	The Grove	Crooks Lane	End	
Wellesbourne	B4087	Newbold Rd	Kineton Rd B4086	Village boundary Nr Wheathead Dr	
Wellesbourne	D6318	Mountford Clos	Newbold Rd	End	
Wellesbourne	D6353	Mordaunt Rd	All		
Wellesbourne	D6322	Chapel St	All		

## Network management Five Year Structural Proposals

Settlement	Rd No	Road		SITE		Treatment	Length
		From	To	From	To		
<b>STRATFORD CARRIAGEWAYS</b>							
Alcester	D5355	Coughton Fields Lane	A435	Ford	Resurface	550	
Alcester	A422	Arrow Lane	County Boundary by A441	towards Alcester for 1950m	Overlay	1950	
Alderminster	C72	New Road	A422	Knavenhill Farm	Resurface	1460	
Armscote	D6559	Church Road	all		Overlay		
Atherstone	D6511	Atherstone road	manor house	E6993	Overlay	3465	
Barton	C107	Welford Road	C47	Bunkers Hill Farm	Haunch	1300	
Barton	D5751	Barton Fields	C47	End of Road	Resurface	380	
Binton	C48	Main Rd	C100 x Rds	Jef/Trac job Binley	55mmOL		
Brailles	D6636	Castle Hill Rd			Overlay		
Buckley Green	D5117	Buckley Green Lane	Triangle/bermd	End Of Road	55mmOL		
Burmington	C56	Cherington Road	D6647 Junction	Hazelwood Manor farm	Overlay		
Chadnut	D6407	Watery Lane	end of road		55mmOL		
Chesterton	C43	Leamington Road	B4455(Old C31)	C44	Resurface	1050	
Combrook	D6364a	Combrook Road	B4086	Church Hill	Haunch	1432	
Compton Verney	B4455	Fosse Way	C96	400m Short of B4086	Resurface	1500	
Earleswood	C89	Cutthroat Lane	C90	C137		916	
Earliswood	C90a	Old Umberslade Road	Old Grove Farm	End Of Road	Resurface	400	
Ettington	A429		layby	roundabout	100mmol		
Exhall	D5432	Ardens Grafton Road	Ardens Grafton	Exhall	55mmOL	175	
Gaydon	D6409	Church Lane	all		40mm O/L		
Gaydon	D6411		Village Farm Area				
Great Aine	C41	Wood Lane	Pelham Lane	SC past Layby	55mmOL		
Hampton Lucy	D6080	Stratford Road	A439	Start Of Houses at Hamptd	Haunch	3110	
Harbury	C143	Plough Lane	C43 Jnc	SC	55mmOL		
Ilmington	D6535	Downs Hill Road	SC 04/05 scheme	to county boundary	Overlay		
Ilmington	C49	Mickleton Rd	playing fields		55o/l		
Kemps Green	D5021	Mows Hill Road	A4189	Nuthurst Road	55mmOL		
Kineton	C53a	Oxhill Road	C54	2004 Scheme	Resurface	1900	
Kineton	D6451	Red Road	C54 Tysoe Road	EntTo Red House Farm	55mm O/L	350	
Kineton	D6437	Pitfern Farm	Start road	End Road	55mmOL		

Settlement	Rd No	Road	SITE		Treatment	Length
			From	To		
<b>STRATFORD CARRIAGEWAYS(cont.)</b>						
Kineton	B4086		Arnolds farm		SD	300
Knightcote	C51	Knightcote Road	Knightlow Farm	Glebe Farm	40mmOL	
Long Compton	C107	Barton Road	Baton on heath	long compton	SD	
Long Marston	B4632	Campden Road	y not farm	sheep leys farm	55mmOL	
Lower Shuckburgh	C74		A425	Canal	Haunch	300
Lower Wawensmere	D5216	Wawensmere Road	C99	shelfield	55mmOL	
Luddington	D5443a	Luddington Road	B439	Bomfords Entrance	Haunch	1550
Mappleborough Green	A4189	Warwick Highway	County Boundary	Nursery	100 plane	
Middle Tysoe	D6468	Sandpits Road	Oxhill Road	Main Street	Resurface	300
Moreton Morrell	B4455c	Fosse Way	D6351 Brook Lane	South For 400m	Resurface	400
Newbold on Stour	D6555	Moss Lane	Rimmel Close	To end of Rimmel		
Norton Lindsey	C93	Snitterfield Lane	Spd Lim Signs Norton	Linds Snitterfield	Haunch/ol	2800
Preston Green	D5244	Hole Farm Lane	A4189	End	Resurface	240
Preston on Stour	D6515	Keys Lane	Preston Bushes	Field Barm	ol/sd	
Priors Marston	D2420	Calloways Rd	C35	Vicarage Lane	Resurface	
Shipston	D6608		all		Overlay	
Shipston	A429		selected areas		Inlay	
Shipston	D6623	Tilemans road	all		Overlay	
Snitterfield	C41	Sand Barn Lane East	C93	A46	55mmOL	
Spernal	D5217	St Bonards Church Road	C39 Jnc	End Of Road	55mmOL	
Stockton	D2323	Station Road	C33	D2266	Resurface	950
Stourton	C56	Whichford Road	D6668	D6683	40mmol	
Stratford	D6202	Longfords Lane	A3400	C98	55mmOL	
Stratford	D61094	Pimlico Lane	D6202	C98	55mmOL	
Stratford	D6175	Lodge Road	Masons Rd	Alcester Rd	plane/res	
Stratford	D6269	Dale Ave	Avon Crescent	A422	40mmOL	
Stratford	D6233	High Street	Ely St	Bridge St	Inlay	
Stratford	B4632	B4532 Camden Rd	Cold comfort Farm	Sheep Leys Farm	100O/L +kerb	
Stratford Road	C98a	Loxley	Meer Hill Farm(SC)	Towards Stratford(SC)	Resurface	500
Stratford-on-Avon	D6214	Quiney's Road	D6218 Shottery Road	D6215 Hathaway Lane	Retread	256
Stratford-Upon-Avon	C98	Loxley Road	Arden Heath Farm	SC Past Croft Sch	Resurface	950
Stretton u Fosse	A429	Fosse Way	Rowbourough Farm area		Recon	
Studley	D5145	Hardwick Lane	sc near castle	sc near the pheasantry	55mmOL	

Settlement	Rd No	SITE		Treatment	Length
		Road	From To		
<b>STRATFORD CARRIAGEWAYS(cont.)</b>					
Studley	D5204	Stapleton Road		Overlay	
Tanworth-In-Arden	C20	Poolhead Lane	M42 Bridge	B4101 Broad Lane Junction Resurface	1212
Tidmington	D6583	Ditchford Road		Overlay	
Upper wawensmere	C99	Wawensmere Rd	Jnc Upper wawensmere	SC 200m east mort bag xri 55mmOL	
Warings Green	D5010	Warings Green Rd	Cut Throat Lane	55mmOL	
Wellesbourne	B4086	fritz Hill	Bow shot island	ol	1000
Wood Bevington	D5492	Hunger Hill	B4080 Jnc	55mmOL	
Wood End	C197	Tithe Barn Lane	Broad Lane	55mmOL	
Wooton Wawen	D5220	Pennyford Lane	B4089	Resurface	1300
Southam	D2380	Abbey Lane	All ?		
Southam	D2367	St James Road	All ?		
Southam		St James Crescent	All ?		
Southam	D2363	Mill Crescent	All ?		
Southam	D2354	Mayfield Road	All ?		
Harbury	D6041	The Beaches	D6039	To End of Road Micro	

Settlement	Rd No	SITE		Treatment	Length
		Road	From		

STRATFORD FOOTWAYS -PROVISIONAL

Alcester		Stratford Road	Hockley Heath	Mayswood Road	Resurface/Reconstruct
Alcester		Kinwarton Rd	Gunnings Bridge	Ten Acres	Resurface/Reconstruct
Alcester		Stratford Road	Nursing Home	Town	Resurface/Reconstruct
Avon Dassett		Lower End	Hillside Farm	Hollywood	Resurface/Reconstruct
Bidford		Waterloo Rd	Home Fm Trust	Mini island	Resurface/Reconstruct
Eitington		Avon Close	entire		Resurface/Reconstruct
Eitington		Banbury Road	A429	towards Pillerton Priors	Resurface/Reconstruct
Gaydon		Kineton Rd	B4100	St Giles Rd	Resurface/Reconstruct
Great Wolford		Village Road	C54	Notice Board	Resurface/Reconstruct
Halford		Main Rd	Queen St	Island	Resurface/Reconstruct
Halford		The Close	entire		Resurface/Reconstruct
Hatton Rock		A439	D6080	Springfield Cottages	Resurface/Reconstruct
Henley		High Street	various sections		Resurface/Reconstruct
Henley		Arden Rd	various sections		Resurface/Reconstruct
Kineton		King Johns Road	entire		Resurface/Reconstruct
Kineton		Brookhampton Ln	Warwick Road	Ind.Units	Resurface/Reconstruct
Lower Quinton		The Close	entire		Resurface/Reconstruct
Lower Quinton		Magdalen Close	entire		Resurface/Reconstruct
Middle Tysoe		Main St	O/S Post Office	Brick footway	Resurface/Reconstruct
Napton		High St	Chapel Yard	Dog Ln	Resurface/Reconstruct
Norton Lindsey		Norton Lea	entire		Resurface/Reconstruct
Norton Lindsey		Gannaway Rd	Dark Ln	End of houses	Resurface/Reconstruct
Nothend		The Prebend	entire		Resurface/Reconstruct
Ratley		Grange Close	entire		Resurface/Reconstruct
Salford Priors		Station Road	Church	New Cottages	Resurface/Reconstruct
Salford Priors		Station Road	A46	Village Nameplate	Resurface/Reconstruct
Shipston		Sheep Street	Darlingscote	High Street	Resurface/Reconstruct
Shipston		Mayo Rd	Station Road	End	Resurface/Reconstruct
Shipston		Clark Close	entire		Resurface/Reconstruct
Southam		Market Hill	Coventry Hill	High Street	Resurface/Reconstruct
Southam		Parkfields	Little Park	Garages	Resurface/Reconstruct

Settlement	Rd No	SITE			Treatment	Length
		Road	From	To		
<b>STRATFORD FOOTWAYS -PROVISIONAL (cont.)</b>						
Southam		Little Park	Park Ln	Garages	Resurface/Reconstruct	
Southam		Horsewell	Parkfields	Garages	Resurface/Reconstruct	
Stratford		Banbury Road	Rushbrook Road	Bridgetown Road	Resurface/Reconstruct	
Stratford		Church St	Old Town	Chapel Lane	Resurface/Reconstruct	
Stratford		High St	Sheep Street	Bridge Street	Resurface/Reconstruct	
Stratford		Bishopton Ln	Heron Lane	Glebe Road	Resurface/Reconstruct	
Stratford		Gt William St	Guild Street	Canel Bridge	Resurface/Reconstruct	
Stratford		Tiddington Road (P1)	between Caravan Sites		Resurface/Reconstruct	
Stratford		Tiddington Road (P2)	Carters Lane	Alveston Lane	Resurface/Reconstruct	
Earlswood		Shutt Ln	Valley Road	End of houses	Resurface/Reconstruct	
Tredington		Ilmington Road	D6564	Lower Farm	Resurface/Reconstruct	
Warrington		School Ln	Banbury Rd	Village Rd	Resurface/Reconstruct	
Warrington		Chapel St	School Ln	Church Hill	Resurface/Reconstruct	
Welford on Avon		Quinney Leys	Now Ssealed		Resurface/Reconstruct	
Wellesbourne		Chapel Street	entire		Resurface/Reconstruct	
Whitchford		Ascott Road	De Mohun	Cottages	Resurface/Reconstruct	
Wilmcote		Station Road	Mary Ardens	Bridge	Resurface/Reconstruct	

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