West Yorkshire

Local Transport Plan

2006/07 - 2010/11

Baseline Data Report

WEST YORKSHIRE LOCAL TRANSPORT PLAN

2006/07 – 2010/11

BASELINE DATA REPORT

The West Yorkshire Local Transport Plan Partnership

March 2006

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CHAPTER 1 INTRODUCTION

1.1 This report provides detailed information on the 46 key and background indicators which have been identified to effectively monitor both the Local Transport Plan (LTP) and associated national and local strategies. Note that not all indicators have associated targets; background indicators are used to inform the overall performance of the LTP strategy whereas key indicators relate directly to LTP or national targets. These indicators are summarised in Table 3.1

1.2 Where relevant the appropriate Best Value Performance Indicators (BVPI) are included. Progress is also reported against the Department for Transport's (DfT) Mandatory Indicators.

1.3 Data is obtained from a variety of published sources, national databases or specifically developed data collection exercises.

1.4 The indicators used are subject to continuing review and revision. Areas for investigation include Quality of Life indicators , including noise mapping and climate change.

1.5 The remainder of this report is structured around indicators developed to monitor the 4 shared priorities of the LTP plus Asset Management with an initial section devoted to monitoring economic changes. Where available data is presented for several years prior to the LTP base year of 2004 in order to better interpret trends in subsequent reports.

Ref	Indicator (DfT Mandatory, *Local Key*, or Background Trend Indicator)	LTP2 Objective (*)	Additional Shared Priority for Key Indicators (**)
ECONOMIC BACKGROUND			
E1	Unemployment Rates	O1	
E2	Local Trade Levels/Vacant Premises	O1	
E3	Central Area Rental Values	O1	
E4	Town Centre Footfall	O1	
SHARED PRIORITY : DELIVERING ACCESSIBILITY			
A1	**Non Car Travel Time to Hospitals**	O2	C,AQ
A2	**Bus Service Punctuality**	O2, O3	C,AQ
A3	**Satisfaction with Bus Services (BVPI 104)**	O2, O3	C,AQ
A4	**Cycle Flows**	O3	S,C
A5	***Satisfaction with LTP funded Public Transport Facilities***	O2	C,AQ
A6	AccessBus Patronage	O2	
A7	Pedestrian Crossing Facilities Meeting BVPI 165	O2	
A8	Age of Bus Fleet	O2,O3	
SHARED PRIORITY : TACKLING CONGESTION			
C1	**Average Journey Time Per Person Per Mile on Key Routes**	O3	A,S,AQ
C2	**Town/City Centre Morning Peak Period Traffic Flows**	O3	A,AQ
C3	**Mode Share for Journeys to School**	O3	A,S,AQ
C4	**Public Transport Patronage (BVPI 102)**	O3	A,S,AQ
C5	***AM Peak Cycle Trips to Centres of Leeds, Wakefield and Halifax***	O3	A,S,AQ
C6	***AM Peak Period Modal Split to Main Urban Centres***	O3	A,S,AQ
C7	***Peak Period Rail Patronage to Leeds***	O3	A,S,AQ
C8	***Quality Bus Corridor Patronage***	O3	A,S,AQ
C9	Peak Period Journey Time Variability on Key Routes	O3	

C10	% of Network Below Reference Speed in Peak Periods	O3	
C11	Peak Spreading Index	O3	
C12	Morning Peak Period Car Occupancy	O3	
C13	Mode Share for Travel to Work	O3	
C14	Travel Distance to Work	O3	
C15	Generalised Costs for Private and Public Transport	O3	
C16	Cost of Travel	O3	
C17	All Day Commuter Parking Supply & Cost	O3	
SHARED PRIORITY : SAFER ROADS			
S1	**All Road User Casualty Trends**	O4	
S2	**Casualty Trends for Children**	O4	
S3	**Slight Casualty Rates**	O4	
S4	***Casualty Trends for Different Road User Groups***	O4	
S5	Town Centre Car Park Spaces with CCTV Cameras	O4	
S6	Rail/Bus Stations with CCTV Cameras	O4	
S7	Town and City Centre Streets with CCTV Cameras	O4	
SHARED PRIORITY : BETTER AIR QUALITY			
AQ1	**NO_2 Levels in AQMA's**	O5	C
AQ2	**Area Wide Traffic Flows**	O5	C
AQ3	***Area Wide Road Transport Emissions - NOx, CO_2***	O5	C
AQ4	Air Quality Monitoring in Town and City Centres	O5	
AQ5	Area Wide Road Transport Emissions : PM_{10}	O5	
AQ6	Low Noise Road Surfacing	O5	
SHARED PRIORITY : ASSET MANAGEMENT			
AM1	**Principal, Non Principal and Unclassified Road Condition (BVPI's 223, 224a and 224b)**	O6	C, S
AM2	**Footway Condition (BVPI 187)**	O6	C,S
AM3	***Structures with Weight and/or Width Restrictions***	O6	A,S
AM4	***Bus Shelters Meeting Modern Standards***	O6	A,S

*** LTP2 Objectives**

O1. To develop and maintain an integrated transport system that supports economic growth in a safe and sustainable way and enhances the overall quality of life for the people of West Yorkshire

O2. To improve access to jobs, education and other key services for everyone

O3. To reduce delays to the movement of people and goods

O4. To improve safety for all highway users

O5 To limit transport emissions of air pollutants, greenhouse gases and noise

O6. To improve the condition of the transport infrastructure

**** Shared Priorities**

A Delivering Accessibility

C Tackling Congestion

S Safer Roads

AQ Better Air Quality

M Effective Asset Management

Table 1.1. DfT Mandatory, Local Key and Background Trend Indicators, Local Transport Plan Objectives and Shared Priorities

CHAPTER 2 ECONOMIC BACKGROUND

Role of Transport

2.1 The Regional Economic Strategy for the Yorkshire and the Humber region recognises that transport issues have a direct effect on the economic well being of the area. An efficient transport system with high quality facilities providing appropriate access links to district centres, workplaces, retail centres, local communities and the other amenities in the region is vital to have an affect on business success. However, there must be a commitment to minimise the negative aspects of transport investment to ensure sustainable development and quality of life.

2.2 A fundamental concern in the region's first Spatial Strategy (RSS), approved in December 2004 and based on a selective review of RPG12, is to establish crucial links between regeneration, economic, social and environmental planning, and sustainability. The RSS seeks to build on the economic success of Leeds spreading to other parts of the region, setting out advice for the sub-region in terms of transport. Within the RSS, the Regional Transport Strategy link with land-use and the impact of transport policies can be linked with changes in the indicators, and districts will continue to identify key areas for analysis, enabling the contribution of transport investment to regeneration and economic growth to be assessed with confidence during future years.

2.3 Investment in local transport infrastructure can be an important stimulus in regional economic development. Opening up market and employment opportunities benefits local businesses and workers, and infrastructure changes affect the cost of travel and so influence supplier and consumer behaviour. Continued improvement to local access, together with environmental enhancements to the district centres, is reflected in the indicators for vitality, regeneration and economic growth that can be monitored consistently at a local level across five metropolitan districts.

Background Indicator E1: Claimant Count and Unemployment Rates

2.4 Release of the 2001 Census 'workplace' data has enabled a baseline for local area and sub-regional work patterns, and provides information for more confident transport planning.

2.5 Recent trends in unemployment at national level, regional level and for the individual centres in West Yorkshire are indicated in Table 2.1. The figures show the rates calculated as proportion of estimated resident population of working age, based on is those residents who were economically active.

2.6 The figures indicate a continued downtrend in unemployment rates in most districts with the exception of Leeds, also being slightly higher than the national and regional rates.

Area	2000	2001	2002	2003	2004	2005
Great Britain	3.3	2.8	2.7	2.7	2.5	2.4
Yorkshire and the Humber	3.9	3.4	3.1	3.0	2.7	2.5
Bradford	4.6	4.1	4.0	3.9	3.3	2.9
Calderdale	3.7	3.3	3.1	3.0	2.5	2.2
Kirklees	3.3	2.8	2.6	2.6	2.2	2.1
Leeds	3.6	3.1	2.9	3.0	2.6	2.7
Wakefield	3.5	3.1	2.8	2.7	2.3	2.3

Table 2.1 Unemployment Rates Calculated as Proportion of Estimated Resident Population of Working Age. March Figures

2.7 Transport has a role to play in influencing business to locate in West Yorkshire and improving people's access to jobs and amenities. Transport investment will broaden the access of employers to available labour markets and a successful and sustainable transport policy promoting confidence will continue to contribute towards falling unemployment levels.

2.8 Monitoring of economic activity and working patterns in West Yorkshire will continue throughout LTP2.

Background Indicator E2: Local Trade Levels / Vacant Premises

2.9 Viability is a measure of the capacity to attract ongoing investment, for maintenance and improvement and to respond to changing needs. The response of owners and tenants to changing demands and sustaining the vitality and viability of shopping areas depends on flexibility in the use of retail floor space. Increased provision of retail space is important to encourage new businesses into the area and allow existing businesses to expand. The result of both is to create a multiplier effect on spending/income/investment. Overall it is a sign of investor confidence and the transport system needs to meet the expectations and needs of the retailers, suppliers and customers.

2.10 Retailer's interest in locating in the area is a valuable indicator of viability and vacancy levels, particularly vacancy in prime retail areas, provides an effective insight into the performance of the cities and towns of West Yorkshire. Table 2.2 shows the latest data on the availability and occupancy of retail floor space in the main centres. The vacancy rate indicator is most useful as a ratio, particularly in view of the increase in provision.

District	Year	Floor space		Vacant Floor		Vacant Units	
		000m²	No.	000m²	%	No.	%
Bradford	2000	Na	Na	Na	Na	Na	Na
	2001	131	515	14	11	108	21
	2002	Na	Na	Na	Na	Na	Na
	2003	112	499	19	17	116	23
	2004	Na	517	Na	Na	113	21.9
	2005	Na	533	Na	Na	132	24.8
Halifax	2000	55	510	9	11.7	38	7.5
	2002*	59	629	5	8.4	81	12.8
	2002*	96	821	10	10.4	104	12.7
	2003	Na	Na	Na	Na	Na	Na
	2004	Na	Na	Na	Na	Na	Na
Huddersfield	2000	80	705	16	19.5	94	13.3
	2002	87	739	11	12.8	117	15.8
	2003	83	732	6	7.5	90	12.3
	2004	82	730	6	7.0	74	10.5
	2005	81	724	4	5.5	66	9.1
Leeds	2000	180	956	15.8	8.8	125	13.0
	2001	180	950	19.8	11.0	129	13.6
	2002	201	1006	23.9	11.9	143	14.2
	2003	201	1004	22.8	11.3	148	14.7
	2004	203	1012	21.8	10.7	141	13.9
	2005	204	1002	21.3	10.4	141	14.1
Wakefield	2000	75	574	9	12.6	51	8.9
	2002	72	556	6	7.7	32	5.7
	2004	72	555	4	5.1	23	4.1
	2005	73	556	1	1.1	8	1.4

Table 2.2: Availability and Occupancy of Retail Floor Area

Note: No inference can be drawn from a comparison of the absolute figures since each centre has been defined according to local circumstances

Bradford figures affected by Broadway redevelopment

** Halifax town centre was redefined in 2002. The figures shown set out the corresponding results for the new area. It is intended to re-survey in Autumn 2005/ Spring 2006*

2.11 An increase in the provision of retail trading space and a decrease in vacancy rates for floor space and units as local trade improves.

2.12 Key areas such as diversity of use and retailer demand for premises need to be examined and analysed regularly in future years. The data on availability and occupancy of retail floor space will continue to be presented on an annual basis.

Background Indicator E3: Central Area Rental Values

2.13 The rental values of commercial premises in district centres can be taken as a measure of the marketability of the property and provide an indication of retailer desire to locate within an area. Data presented in Tables 2.3 to 2.5 is extracted from Valuation Office Property Market Report's (VOPMR), a national publication which collates rental values of commercial property in major towns and cities throughout the country. The main centres in West Yorkshire are included and comprehensive district centre audits provide

rents and yields both from the VOPMR and from private sector specialist businesses

Location	Rental Values £/m²														
	Type 1 25 - 75m²			Type 2 150 – 200m²			Type 3 Circa 500m²			Type 4 Circa 1000m²			Type 5 Multi Storey		
	Oct 96	Oct 00	July 04	Oct 96	Oct 00	July 04	Oct 96	Oct 00	July 04	Oct 96	Oct 00	July 04	Oct 96	Oct 00	July 04
Bradford	65	66	66	46	47	47	43	47	47	40	41	41	24		
Halifax		50	60		45	55		40	45		35	40		15	23
Huddersfield	53	55	65	48	53	60	40	43	50	33	40	45	15	20	25
Leeds	58	60	65	51	55	65	52	50	50	43	45	50	25	27	
Wakefield		48	60		40	60		38	50		33	50			

Table 2.3: Rental Values for Industrial Premises

Note: Property types as defined in Valuation Office Property Market Report

Location	Rental Values £/m²								
	Type 1 ZPI			Type 2 ZPI			Type 3 GIA		
	Oct 96	Oct 00	July 04	Oct 96	Oct 00	July 04	Oct 96	Oct 00	July 04
Bradford	915	1,250	1,300	425	750	750	92	95	200
Halifax		750	1,000		400	500		100	150
Huddersfield	800	750	1,100	420	400	550	80	100	225
Leeds	1,450	2,500	3,000	400	550	800	85	200	230
Wakefield		850	1,200		460	550		88	150

Table 2.4: Rental Values for Shops

Note: Property types as defined in Valuation Office Property Market Report

Location	Rental Values £/m²								
	Type 1			Type 2			Type 3		
	Oct 96	Oct 00	July 04	Oct 96	Oct 00	July 04	Oct 96	Oct 00	July 04
Bradford	113	113	120		113	120	80	80	120
Halifax		70	110		65	110		70	80
Huddersfield	118	110	120	90	100	120	70	70	85
Leeds	180	200	*190	180	190	*220	140	140	175
Wakefield		70	145		90	150		70	120

Table 2.5: Rental Values for Offices

Note: Property types as defined in Valuation Office Property Market Report

** denotes offices with air-conditioning*

2.14 Increasing rental values indicates an improving economic environment in district centres.

2.15 Information on this indicator will be gathered from the VOPMR and will continue to be reported in future years against the base values of 2004

Background Indicator E4: Pedestrian Activity

2.16 In shopping areas, the level of pedestrian activity gives a good indication of the health of the retail sector of the economy. The methodology of pedestrian surveys undertaken varies from centre to centre. By repeating surveys at the same sites and on the same days of the week, the results can be converted to a single figure for each centre which can be compared year on year with the base figure.

2.17 Table 2.6 shows the change since 2000 compared with the levels of activity in the base year (2004).

Centre	Date	Flow	Index
Bradford	Nov-2000	567,100	111
	Nov-2001	569,000	111
	Nov-2002	513,300	101
	Nov-2003	520,500	102
	Nov-2004	510,400	100
Halifax	Sept-2001	1,305,800	105
	Sept-2002	1,163,300 (**)	93(**)
	Sept-2003	1,324,700	106
	Sept-2004	1,244,800	100 (**)
Huddersfield	May-2000	62,100 (**)	76(**)
	Apr-2003	86,900	94
	Apr-2004	81,700	100
Leeds	May / June-2000	505,100 (*)	80
	May / June-2002	513,900 (*)	90
	May / June-2003	512,700	89
	May / June 2004	573,400	100
Wakefield	May-2002	339,800	109
	April-2003	321,600	103
	March-2004	311,000	100

Table 2.6 Pedestrian Activity In Centres

Notes on Table 2.6 : No comparison can be made between centres since different numbers of sites and numbers of counts were used.

(*) The methodology of the counts in Leeds changed from May / June 2000,

The methodology of counts in Wakefield changed from May 2002

(**) Extensive town centre works in Halifax and Huddersfield contributed to a temporary decline in footfall, Traditions Street Festival in Halifax TC at the time of the count in Sept 2004

2.18 Increased pedestrian activity in shopping areas would indicate a strong economy and assist in the retention and development of strong centres.

2.19 Pedestrian activity will continue to be monitored and will be presented on an annual basis.

Commentary

2.20 Although no single indicator can effectively measure how well centres are performing in terms of their attraction, accessibility and amenity, a selection of indicators can provide a view of performance and offer a means of assessing vitality and viability. Using a broad-based audit process, we can identify strengths and weaknesses of the town centres.

2.21 The unemployment rate in West Yorkshire in March 2005 has again decreased over the year 2004/05 continuing the downward trend experienced since 1996 closely following the national and regional trends.

2.22 The availability and occupancy indicators of retail floor area may fluctuate and be temporarily affected by uncertainty over local redevelopment and regeneration proposals. This is always likely to be the case in each centre from year to year.

2.23 An increase in the level of pedestrian activity in most district centres indicates a positive response to improvements. Amendments in the monitoring frequency and procedures implemented during LTP1 have established a more reliable methodology and the underlying trends in the district centres is becoming more apparent now repeat counts have been carried out over a number of years.

2.24 It is considered that the local performance indicators associated with the trend monitoring in this report are related to transport issues. Town centre audits are proving vital in underpinning strategic decisions about the continued development of the centres. A wider range of local indicators may emerge which reflect the impact of measures funded through the local transport plan expenditure as more comprehensive town centre audits are developed in the future.

CHAPTER 3 DELIVERING ACCESSIBILITY

Introduction

3.1 The following 8 indicators have been developed to monitor our progress towards the "Delivering Accessibility" strategy in LTP2. Progress towards LTP2 targets will be measured using 4 mandatory and 1 local key indicators. The remaining three indicators are background trend indicators which will help assess overall progress for this key strategy area.

Mandatory Indicator A1 : Non Car Travel Times to Hospitals

3.2 The Accession software has been used to calculate accessibility statistics for each 2001 census output area in West Yorkshire. Public Transport information is based on a 2004 data set supplied by DfT.

3.3 The base year calculation for this indicator shows that 89.5% of households without access to a car are within 30 minutes of a hospital. Future monitoring reports will report changes against this baseline.

Mandatory Indicator A2 : Bus Service Punctuality

3.4 Table 3.1 shows bus service punctuality , defined as the percentage of scheduled services less than 1 minute early or five minutes late, since 2000/01 with the LTP2 baseline of 2003/04 highlighted.

Year	Punctuality
2000/01	88.7
2001/02	88.5
2002/03	90.0
2003/04	87.1
2004/05	86.8

Table 3.1 Bus Service Punctuality, 2000/01 to 2004/05

3.5 Data is collected using the Vehicle and Operator Services Agency (VOSA) methodology for measuring punctuality with the addition of intermediate timing points. In the future the Real Time Positioning equipment being fitted to West Yorkshire buses will allow us to measure punctuality using a much larger sample size.

3.6 Additionally surveys indicate that, for frequent services (those with a headway of less than 15 minutes) the excess waiting time in 2003/04 was 1.29 minutes. Changes to this figure will be reported annually.

Mandatory Indicator A3 : Satisfaction with Local Bus services (BVPI 104)

3.7 Every three years the public are asked to indicate whether they were satisfied or dissatisfied with the provision of bus services overall. The latest results (2003/04) indicate that 54% were happy with bus services . This figure provides the baseline against which future progress will be monitored. A target has been set for 68% of users to be satisfied with local bus services by 2009 / 2010.

	1998/9	1999/00	2000/01	2001/02	2002/03	2003/04
Percentage of users satisfied with Local Bus Services	-	-	54.3%	-	-	54% Baseline

Table 3.2 (BVPI104) Percentage of Users Satisfied with Local Bus Services

3.8 The results of the next survey in 2006/07 will be reported in the following Monitoring Report.

Mandatory Indicator A4 : Area Wide Cycle Flows

3.9 The West Yorkshire authorities are committed to encouraging cycling, for both commuting and leisure trips, through the provision of a high quality cycle network and through the inclusion of improvements for cyclists in the integrated corridor schemes.

3. 10 In response to the challenge of a national cycling target a methodology for measuring cycle flows throughout the area has been developed using National Traffic Census data. This survey is considered to be more indicative of wider cycle use than central area cordon counts and includes counts on all principal roads and a sample of minor roads counted for a 12 hour weekday over a 3 year cycle. (Cycle flows are routinely collected as part of the modal split surveys in the district centres and changes in these flows are reported under Background Indicator I1).

3.11 To establish the level of cycling within West Yorkshire use was made of the database of 12 hour manual classified counts. Each site is typically counted at least once every three years, although from time to time the list of sites changes slightly and some sites are counted more frequently. Following a trial of the methodology in Leeds the process has been extended to the whole of West Yorkshire for LTP2.Once again, only the sites which have at least one count during all of the three year periods is included in the statistic. This ensures that the dataset is a consistent set in terms of its constitution for the entire reporting period.

3.12 Table 3.3 shows the average number of cyclists observed across all 160 survey sites. The index shows the change in the level of cycling for a nine year period, relative to a base year finishing in 2004.

WEST YORKS	1998-2000	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005
Average Flow	41.6	40.6	39.1	38.4	37.7	37.7
Count	160	160	160	160	160	160
% base	110	108	104	102	100	100
BRADFORD	**1998-2000**	**1999-2001**	**2000-2002**	**2001-2003**	**2002-2004**	**2003-2005**
Average	34.4	33.9	34.0	33.0	32.3	31.6
Count	29	29	29	29	29	29
% base	107	105	105	102	100	98
CALDERDALE	**1998-2000**	**1999-2001**	**2000-2002**	**2001-2003**	**2002-2004**	**2003-2005**
Average	28.6	28.8	29.3	29.8	29.6	29.0
Count	22	22	22	22	22	22
% base	97	97	99	101	100	98
KIRKLEES	**1998-2000**	**1999-2001**	**2000-2002**	**2001-2003**	**2002-2004**	**2003-2005**
Average	38.0	36.2	33.4	31.4	27.9	27.8
Count	26	26	26	26	26	26
% base	136	130	120	113	100	100
LEEDS	**1998-2000**	**1999-2001**	**2000-2002**	**2001-2003**	**2002-2004**	**2003-2005**
Average	53.3	51.4	48.5	47.5	46.6	45.7
Count	62	62	62	62	62	62
% base	114	110	104	102	100	98
WAKEFIELD	**1998-2000**	**1999-2001**	**2000-2002**	**2001-2003**	**2002-2004**	**2003-2005**
Average	35.0	35.8	36.1	36.7	39.3	43.8
Count	21	21	21	21	21	21
% base	89	91	92	93	100	111

Table 3.3 Volume of Bicycle Counts Across West Yorkshire 1994 - 2005.

3.13 Changes in cycle flows for West Yorkshire will be updated annually and reported in progress reports. Research will continue into the development of more robust cycle monitoring techniques, including rebasing the count sample to 2002/04 and this will also be reported in future progress reports.

Local Key Indicator A5 : Satisfaction with LTP Funded Public Transport Facilities

3.14 Before and After monitoring of 7 schemes implemented in 2004/05 have been used to develop a baseline of 87% satisfaction (2004/05).

3.15 Monitoring of all schemes introduced during LTP2 will continue and changes to the baseline will be reported in future Progress Reports.

Background Indicator A6 : AccessBus Patronage

3.16 AccessBus patronage data relates to the use of the specialised door-to-door service for people unable to use conventional public transport, operating under contract to Metro in all districts. Current data collection includes the number of passenger trips made annually and in1995 320,000 passenger trips were made.

3.17 Metro is implementing a strategy for improved access to mainstream public transport services. The door-to-door nature of the AccessBus service and the extra assistance given by drivers, particularly in relation to shopping activities, means that demand for the service has increased with a 60% increase in patronage between 1995/96 and 2001/02. The last three years have shown reduced patronage levels, partly due to the new booking system which logs cancellations more accurately.

3.18 AccessBus patronage trends are shown in Figure 3.1

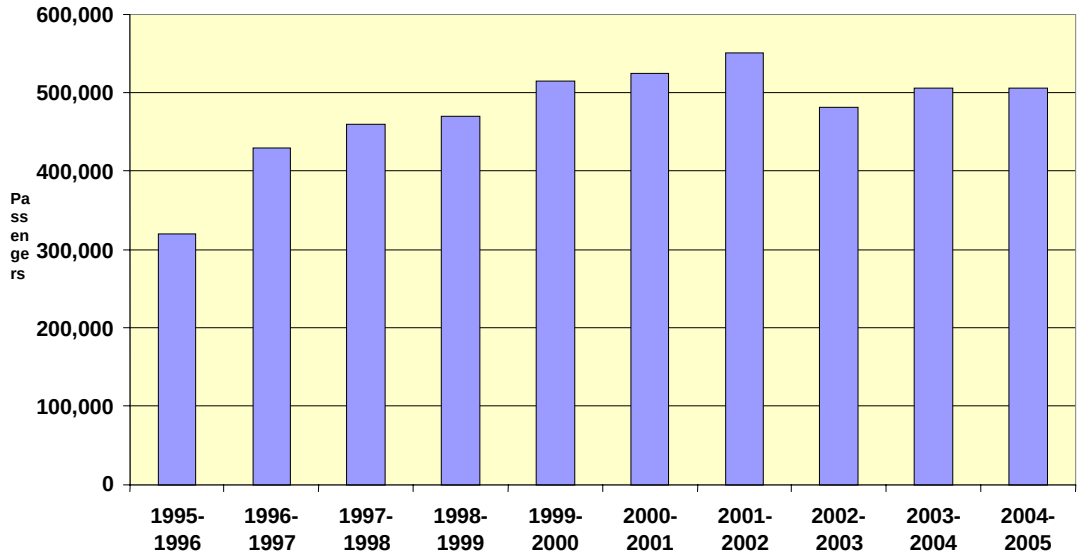


Figure 3.1 AccessBus Patronage Trends

Background Indicator A7 : Pedestrian Crossing Facilities Meeting BVPI 165

3.19 Data is presented from 2002/3 in line with the introduction of Performance Indicator BV165. Progress made in improving facilities at controlled crossings is shown below in Table 3.4 .

Bradford				
Type	**With dropped kerbs, tactile paving and tactile indicators**			
	2002/03		**2004/05**	
	No	**%**	**No**	**%**
Pelican / Puffin	52	46	139	97
Signal control	25	34	83	94

Calderdale				
Type	**With dropped kerbs, tactile paving and tactile indicators**			
	2002/03		**2004/05**	
	No	**%**	**No**	**%**
Pelican / Puffin	16	57	38	100
Signal control	16	50	36	94

Kirklees				
Type	**With dropped kerbs, tactile paving and tactile indicators**			
	2002/03		**2004/05**	
	No	**%**	**No**	**%**
Pelican / Puffin	24	48	29	63
Signal control	42	76	71	93

Leeds				
Type	**With dropped kerbs, tactile paving and tactile indicators**			
	2002/03		**2004/05**	
	No	**%**	**No**	**%**
Pelican / Puffin	98	49	200	92
Signal control	151	57	210	92

Wakefield				
Type	**With dropped kerbs, tactile paving and tactile indicators**			
	2002/03		**2004/05**	
	No	**%**	**No**	**%**
Pelican / Puffin	63	80	86	95
Signal control	31	42	49	86

Table 3.4 Provision at Controlled Crossings

3.20 The progress of upgrading of controlled crossings and installation of new crossings will be reflected in future reporting.

Background Indicator A8 : Age of Bus Fleet

3.21 The age of the bus fleet is monitored through annual returns from operators against a national target of 8 years. The returns presented in Table 3.5 shows 6.6% reduction in the age of bus fleet in West Yorkshire since 1999.

	March 1999	**March 2000**	**March 2001**	**March 2002**	**March 2003**	**March 2004**	**March 2005**
Age of bus fleet	9.2	8.7	-	-	9.2	9.4	8.6

Table 3.5 Age of Bus Fleet

3.22 The age of the bus fleet will continue to be monitored through operator returns.

CHAPTER 4 TACKLING CONGESTION

Introduction

4.1 The following 17 indicators have been chosen to monitor our progress towards the “Tackling Congestion” strategy in LTP2. Progress towards LTP2 targets will be measured using 4 mandatory and 4 local key indicators. The remaining 9 indicators are background trend indicators which will help assess overall progress for this key strategy area.

Mandatory Indicator C1: Average Journey Time Per Person Mile on Key Routes.

4.2 Work on calculating the baseline for this indicator is continuing. In autumn 2005 we completed public transport journey time and vehicle occupancy surveys on 13 of the 14 key routes included in this indicator and shown in Figure 4.1. The final route will be surveyed in spring 2006. DfT will supply additional data which will enable us to calculate the final elements of this indicator, set targets and report to DfT by July 2006.

4.3 Progress towards the target will be reported in future Monitoring Reports, together with details of the basket of supporting indicators currently being finalised with DfT.

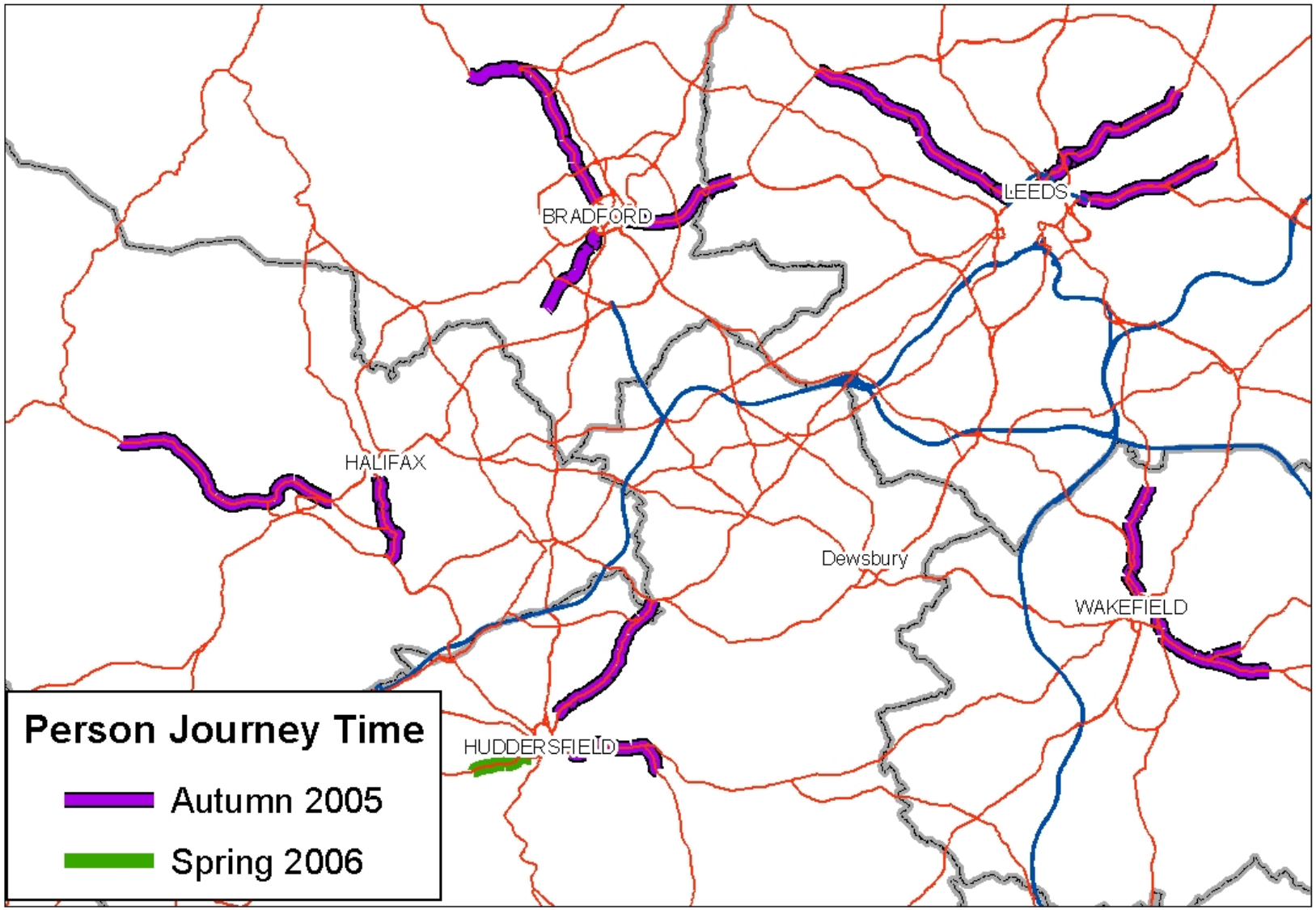


Figure 4.1 Routes Used in Calculation of Person Journey Time Indicator

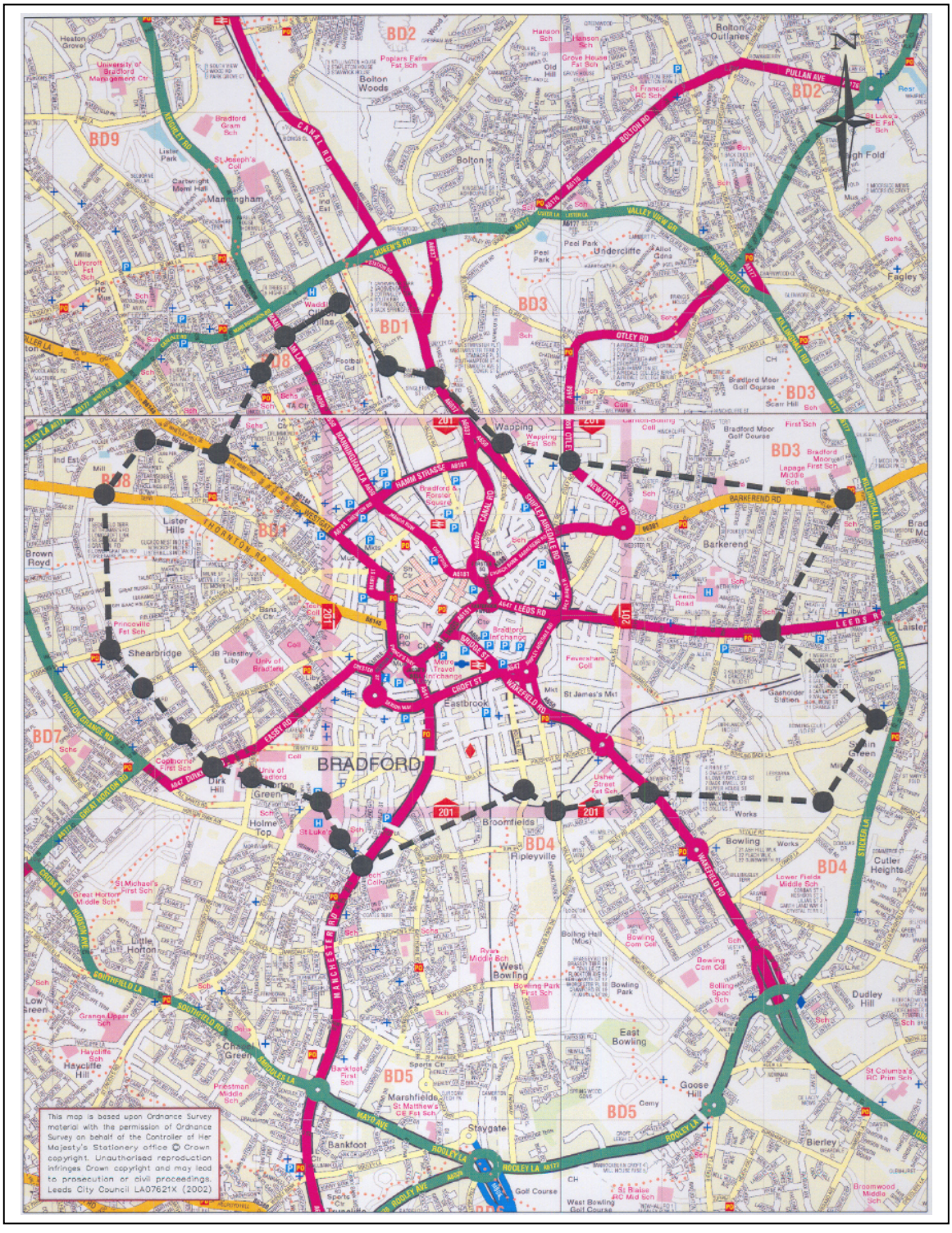
Mandatory Indicator C2 : Town/City Centre Morning Peak Period Traffic Flows

4.4 Traffic flows throughout West Yorkshire have been monitored since 1979 as part of the Long Term Monitoring Programme (LTMP). Automatic traffic counters have been used to collect data on cordons around the main urban areas on a two year programme. Figures 4.2 to 4.6 show the locations of the cordons around the five main centres of Bradford, Halifax, Huddersfield, Leeds and Wakefield.

4.5 Data are presented for the morning peak period (0700 to 1000) in Tables 4.1 to 4.5 and show the changes in traffic flow since 1990 with the 2003/04 baseline for LTP2 highlighted. Flows can change markedly from year to year as a result of network changes, new developments and the method of data collection, hence the 5 year average is a more robust indicator of the underlying trend.

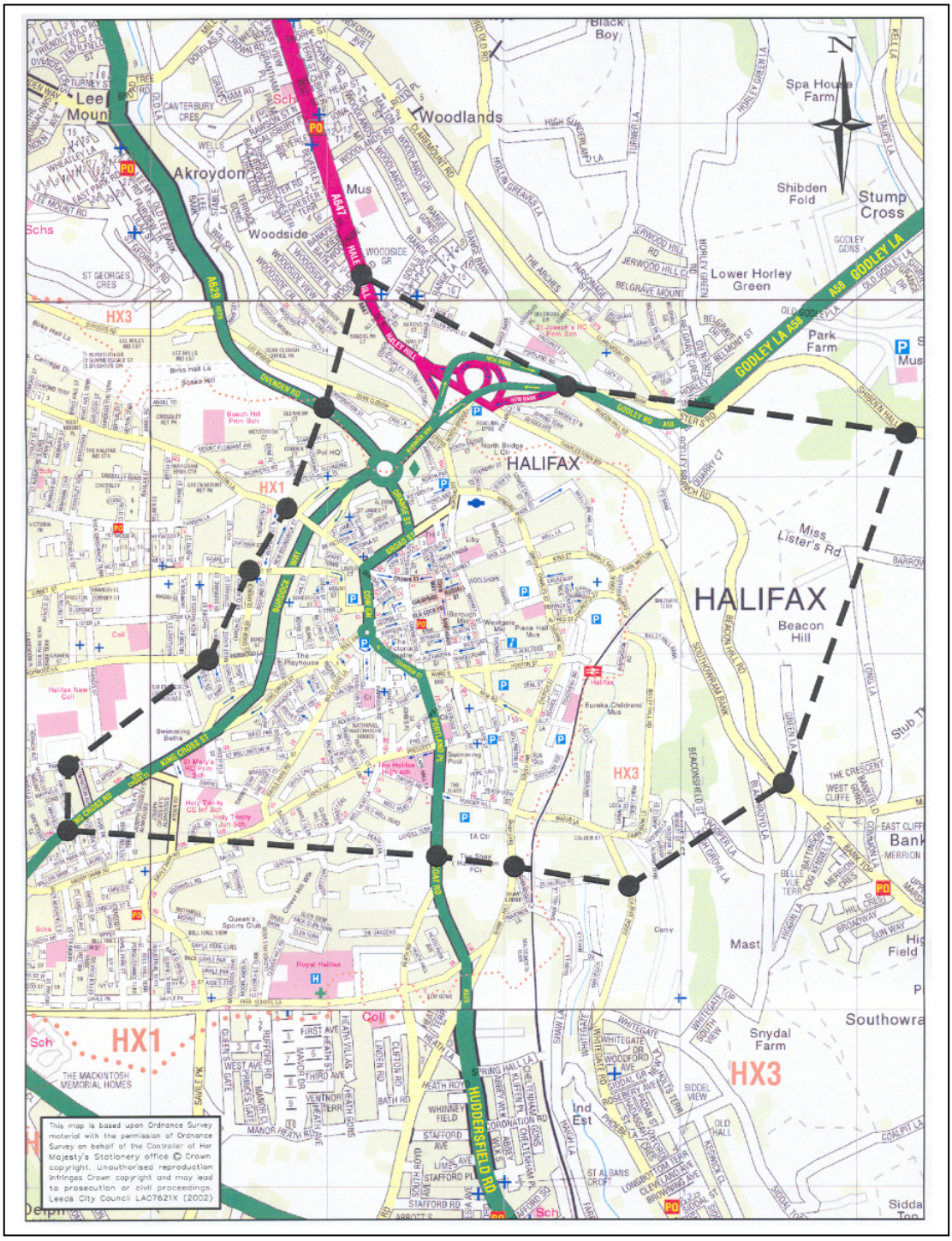
Year	AM Peak Period Traffic Flow (0700 to 1000)	Peak Period Index (2003=100)
1990	43,660	96
1993	45,450	100
1995	45,340	100
1997	45,800	101
1999	45,600	101
2001	46,790	103
2003	45,530	100
2005	46,370	102
% Growth 1999 - 2003	No change	

Table 4.1 Bradford Central Cordon - AM Peak Period Inbound Traffic Flows



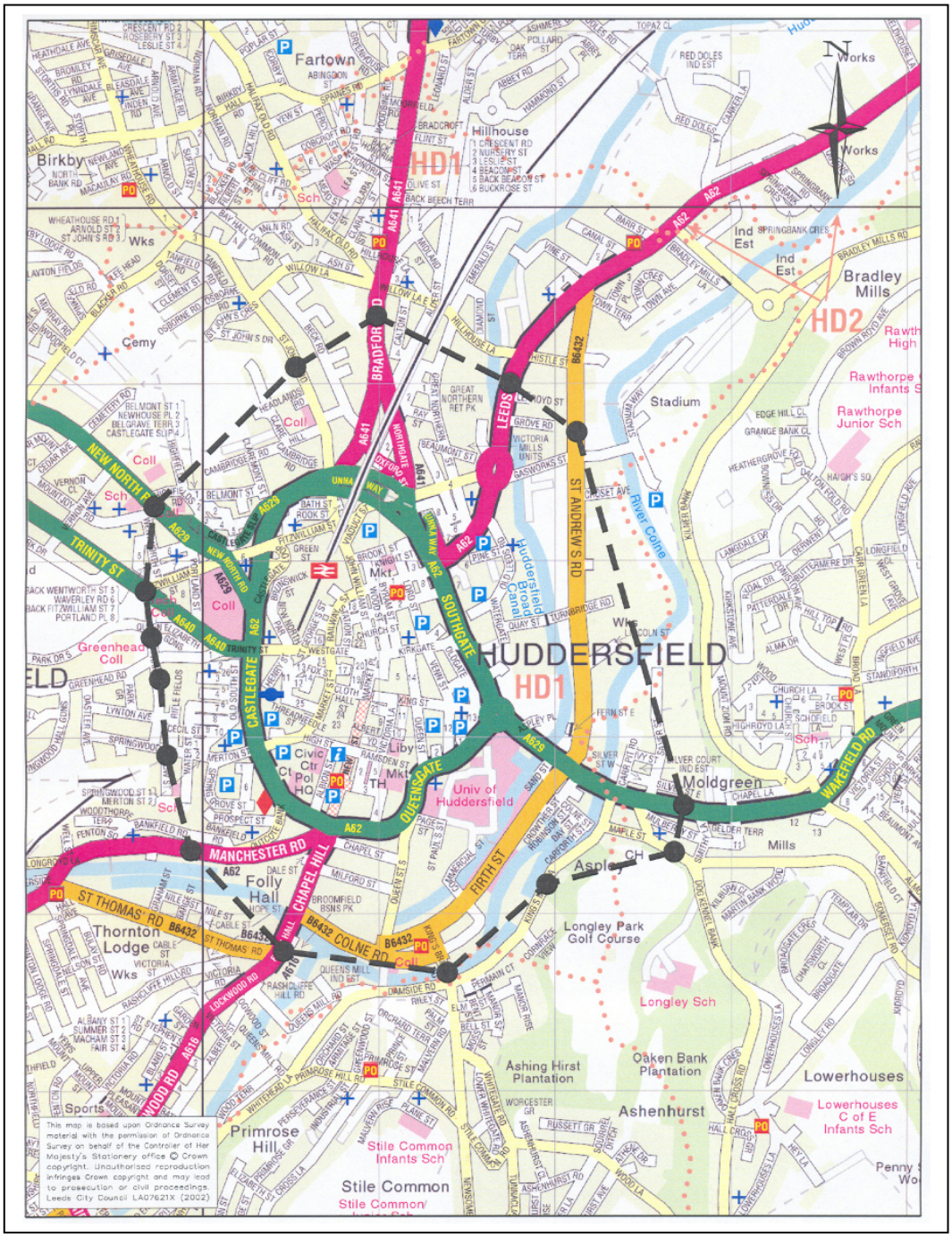
- ATC Count Location

Figure 4.2 Traffic Counting Cordon : Central Bradford



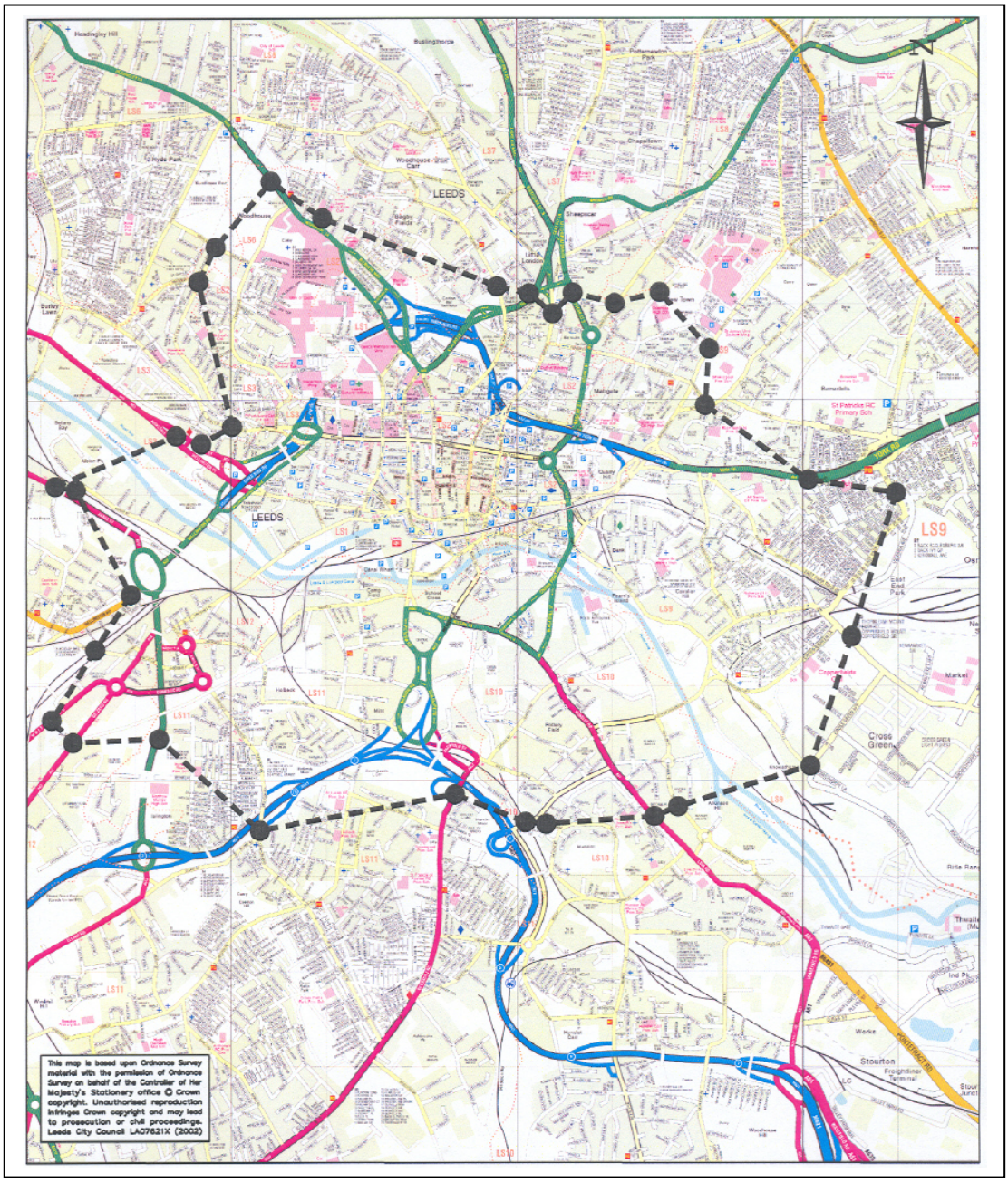
- ATC Count Location

Figure 4.3 Traffic Counting Cordon : Central Halifax



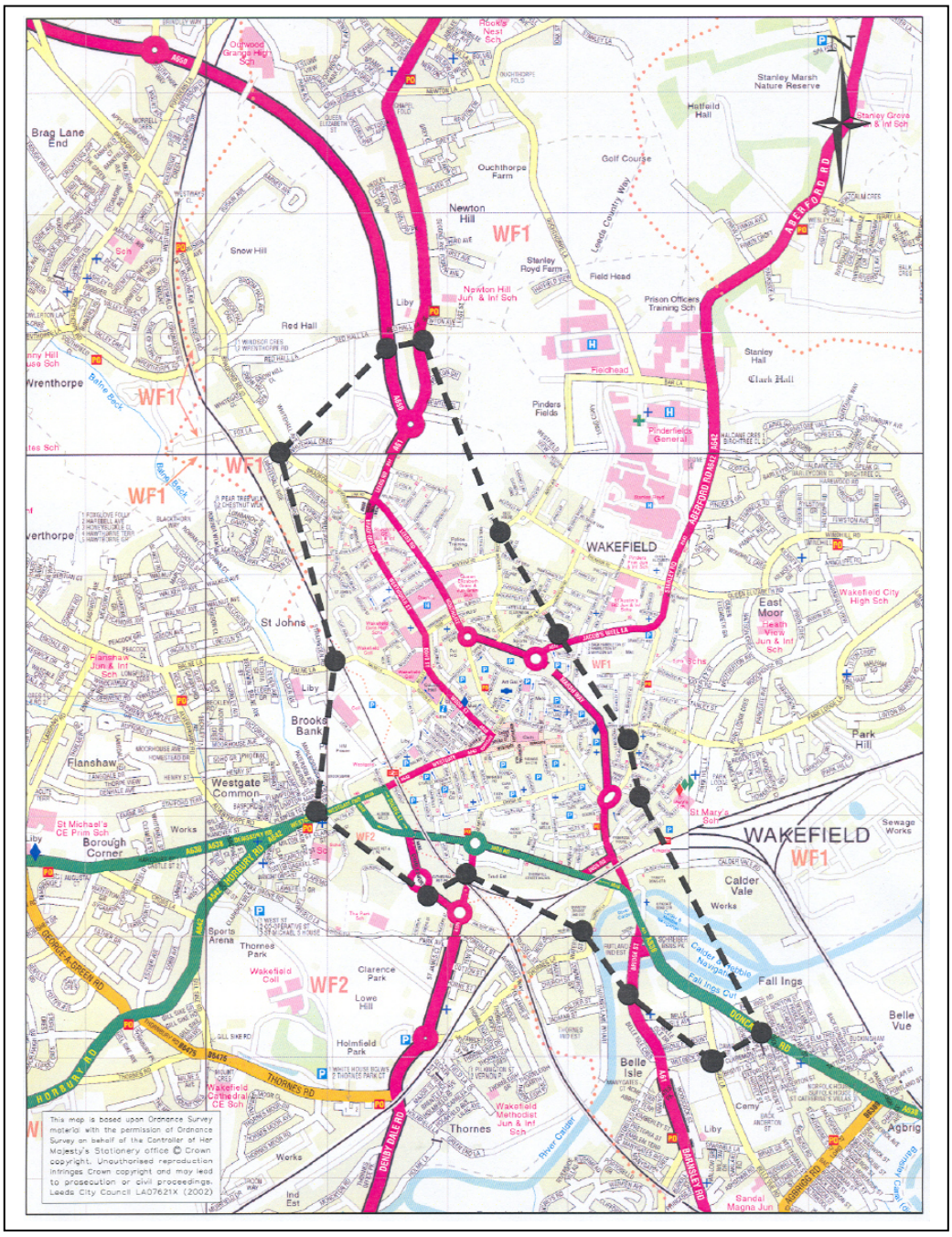
- ATC Count Location

Figure 4.4 Traffic Counting Cordon : Central Huddersfield.



- ATC Count Location

Figure 4.5 Traffic Counting Cordon : Central Leeds.



● ATC Count Location

Figure 4.6 Traffic Counting Cordon : Central Wakefield.

Year	AM Peak Period Traffic Flow (0700 to 1000)	Peak Period Index (2003=100)
1990	19,810	84
1993	21,370	91
1995	22,530	96
1997	22,590	96
1999	22,890	97
2001	22,090	94
2003	23,580	100
2005	23,450	99
% Growth 1999 - 2003	+3%	

Table 4.2 Halifax Central Cordon - AM Peak Period Inbound Traffic Flows

Year	AM Peak Period Traffic Flow (0700 to 1000)	Peak Period Index (2003=100)
1990	28,570	92
1993	28,430	92
1995	30,680	99
1997	31,360	101
1999	31,490	101
2001	31,220	100
2003	31,110	100
2005	31,380	101
% Growth 1999 - 2003	-1%	

Table 4.3 Huddersfield Central Cordon – AM Peak Period Inbound Traffic Flows

Year	AM Peak Period Traffic Flow (0700 to 1000)	Peak Period Index (2004=100)
1990	87,180	89
1992	94,880	97
1994	88,420	90
1996	88,880	91
1998	92,330	94
2000	93,540	95
2002	96,990	99
2004	98,210	100
% Growth 2000 – 2004	+5%	

Table 4.4 Leeds Central Cordon – AM Peak Period Inbound Traffic Flows

Year	AM Peak Period Traffic Flow (0700 to 1000)	Peak Period Index (2004=100)
1990	24,940	88
1992	24,300	86
1994	24,140	86
1996	24,360	86
1998	24,730	88
2000	26,340	93
2002	29,580	105
2004	28,230	100
% Growth 2000– 2004	+7%	

Table 4.5 Wakefield Central Cordon – AM Peak Period Inbound Traffic Flows

4.6 The monitoring of traffic flows across the main district centre central cordons will continue. The frequency of monitoring will be increased to annually from 2006 with many sites converted to loop operation to improve the accuracy of the count in congested conditions. However, the margin of error will be such that we will not be able to predict with statistical certainty a stabilisation of traffic flows. This monitoring provides valuable information including long-term trend data and information on peak spreading.

Mandatory Indicator C3 : Mode Share For Journeys to School

4.7 From 2007 this mandatory indicator will be monitored using PLASC (Pupil Level Annual School Census) data supplied by DfES. In the meantime we will continue to report the results of the annual "hands-up" travel to school survey, undertaken on the second Wednesday in October , which is now in its 5th year.

4.8 In 2004 more than 150,000 pupils from over 530 schools in West Yorkshire took part. Table 4.6 shows the changes in mode share and the increase in school and pupil participation since the first survey in 2000.

	Walk	Car	Bus	Bike	Other	No of Schools	Pupils	Schools in Area
2004	71,600	57,602	20,552	797	1,080	538	151,770	901
	47%	*38%*	*14%*	*>1%*	*<1%*	*60%*		
2000	62,633	45,079	19,880	490	389	475	128,471	934
	49%	*35%*	*15%*	*>1%*	*<1%*	*51%*		

Table 4.6 Mode Split From The Annual Travel To School Survey 2000 and 2004

4.9 In 2004 the survey was sufficiently robust to allow the data to be subdivided into secondary and primary schools as shown below.

	Walk	Car	Bus	Bike	Other	No of Schools	Pupils
Primary	53,889	43,079	3,373	425	318	473	101,215
	53%	*43%*	*3%*	*>1%*	*>1%*		
Secondary	17,711	14,523	17,179	372	762	65	50,555
	35%	*29%*	*34%*	*>1%*	*2%*		

Table 4.7 Mode Split to Primary and Secondary Schools From The Annual Travel To School Survey 2004

Mandatory Indicator C4 : Public Transport (Bus) Patronage (BVPI 102)

4.10 Patronage of bus services in West Yorkshire is monitored through use of a continuous on board survey. This data is extrapolated to provide annual figures for countrywide bus patronage as presented in Table 4.8 The data is also shown indexed to the LTP2 base year of 2003/04

	1998/ 1999	**1999/ 2000**	**2000/ 2001**	**2001/ 2002**	**2002/ 2003**	**2003/ 2004**	**2004/ 2005**
Passenger Journeys per year (millions)	203.0	199.4	201.6	202.0	203.6	199.1	195.7
Index to 2003/04	102	100	101	102	102	100	98

Table 4.8 West Yorkshire Bus Patronage, 1995/96 to 2004/05

4.11 There are a number of factors affecting bus patronage. The fuel crisis and problems on the railways (the redevelopment of Leeds station; floods; the Hatfield disaster and driver/guard strikes) may have contributed to the patronage increase in the early part of the LTP1 period.

4.12 Higher than anticipated fare increases due to higher insurance, fuel costs and drivers wages has fed through into passenger journey decline. Pressures on revenue budgets have also resulted in increases in concessionary fares.

4.13 The West Yorkshire Bus Strategy, which forms part of LTP2. proposes greater intervention in the market to deal with issues that have led to patronage decline.

Local Key Indicator C5 : AM Peak Cycle Trips to Centres of Leeds, Wakefield and Halifax

4.14 Cycle trips crossing the central cordons of Halifax, Leeds and Wakefield are monitored as part of the morning peak modal split surveys (see Key Indicator C6). Data is collected on three separate weekdays and cycles are recorded on road, on the footway and off road at the cordon points.

Centre	Number of Cycles in Morning Peak Period (0730-0930)			
	2000	2002	2004	2005
Halifax	52	51	54	53
Leeds	441	430	571	628
Wakefield	155	141	72	105

Table 4.9 Morning Peak Period Cycle Flows to Central Halifax, Leeds and Wakefield

4.15 Future changes will be reported annually.

Local Key Indicator C6 : AM Peak Period Modal Split to Main Urban Centres

4.16 In addition to absolute volumes, modal split is recognised as a key indicator of the impact of the Transport Plan measures. Previously the main source of this data was the national census which, with a ten-year cycle, is useful for assessing long-term trends. To further refine the monitoring of mode choice, and to establish a robust baseline against which future changes could be measured, local modal split surveys were carried out in major centres during 1998 and further surveys undertaken in 1999 at a number of other district centres.

4.17 The surveys recorded persons travelling in private vehicles, on foot and by bicycle and also those travelling by bus. Rail patronage data were obtained from the Metro continuous ticketing survey. The survey points coincided with those used for the central cordon automatic traffic count programme (see Figures 4.2 to 4.6 above). For monitoring LTP2 additional sites will be added to these cordons to record persons walking or cycling on off-road routes where applicable. Revised data will be reported from 2006

4.18 Following a successful pilot in Leeds in 2004 [1] a more statistically robust monitoring regime was introduced across West Yorkshire in 2005 and mode split counts were undertaken in the main centres over 4 days for the am peak period inbound to the city centre. At the same time the frequency of data collection was increased to annually.

4.19 Tables 4.10 to 4.14 below show the results of the modal split surveys in the main centres since 2000. Note the figures in the cells may not total 100 due to rounding.

4.20 Future changes will be reported against the LTP2 baseline of 2004.

[1] Estimating Confidence Intervals for Transport Mode Share : Clark.S & McKimm J : Journal of Transportation and Statistics, Vol 8, No.2 : 2005

Year	Total persons Crossing cordon	% Modal Split					
		Walk	Cycle	Motorcycle	Car	Bus	Train
2000	51,321	4	<1	<1	74	17	5
2002	50,914	4	<1	<1	74	17	5
2004	49,898	4	<1	<1	74	16	5
2005	50,123	4	<1	<1	74	16	6

Table 4.10 Modal Split – AM Peak (0730-0930) Inbound to Bradford

Year	Total persons Crossing cordon	% Modal Split					
		Walk	Cycle	Motorcycle	Car	Bus	Train
2000	26,037	4	<1	<1	73	19	4
2002	25,525	3	<1	<1	73	20	4
2004	25,318	4	<1	<1	73	18	4
2005	26,768	5	<1	<1	74	17	4

Table 4.11 Modal Split – AM Peak (0730-0930) 2005 Inbound to Halifax

Year	Total persons Crossing cordon	% Modal Split					
		Walk	Cycle	Motorcycle	Car	Bus	Train
2000	33,169	6	<1	<1	67	21	5
2002	33,575	6	<1	1	68	21	5
2004	34,028	6	<1	<1	66	22	5
2005	35,664	7	<1	<1	64	23	6

Table 4.12 Modal Split – AM Peak (0730-0930) - 2005 Inbound to Huddersfield

Year	Total persons Crossing cordon	% Modal Split					
		Walk	Cycle	Motorcycle	Car	Bus	Train
2000	110,299	3	<1	<1	61	26	10
2002	107,746	3	<1	1	61	26	9
2004	120,400	3	<1	<1	58	28	10
2005	121,184	4	<1	<1	57	26	12

Table 4.13 Modal Split – AM Peak (0730-0930) 2005 Inbound to Leeds

Year	Total persons Crossing cordon	% Modal Split					
		Walk	Cycle	Motorcycle	Car	Bus	Train
2000	30,752	2	1	1	72	15	10
2002	35,224	2	<1	1	76	13	8
2004	33,570	2	<1	1	73	16	9
2005	38,399	3	<1	<1	72	16	9

Table 4.14 Modal Split – AM Peak (0730-0930) - 2005 Inbound to Wakefield

Local Key Indicator C7 : AM Peak Period Rail Patronage to Leeds

4.21 Table 4.15 below shows the number of passengers arriving at Leeds station using trains operated by Northern during the weekday morning peak period (0730-0930) since 1979.

	1999	2000	2001	2002	2003	2004	2005
Passengers	10,693	*	*	10,147	9,585	10,209	11,863

2000 and 2001 figures are excluded due to number of bus substitutions and service suspensions associated with Leeds 1st , Hatfield accident, strikes and staff shortages

Table 4.15 AM Peak Period Rail Patronage to Leeds, 1999 to 2005

4.22 Changes against the baseline of 2004 will be reported in future monitoring reports.

Local Key Indicator C8 : Quality Bus Corridor Patronage

4.23 Patronage figures have been monitored on Quality Bus Corridors and the trend in passenger numbers has been compared with that on the network as a whole as shown in Table 4.16.

Year	QBC Trend	W Yorks Trend
2000/01	+3%	+1.1%
2001/2	+4%	+0.2%
2002/3	+3%	+0.74%
2003/4	+3%	-2.16%
2004/5	+2%	-1.71%

Table 4. 16 Bus Patronage on Quality Bus Corridors Compared With West Yorkshire Trend

4.24 Monitoring of these schemes will continue throughout LTP2 and comparative trends will be reported in future Monitoring Reports

Background Indicator C9 : Peak Period Journey Time Variability on Key Routes

4.25 This indicator is under development and will be reported in future Monitoring Reports**.**

Background Indicator C10 : Proportion of Network Below Reference Speed in Morning Peak Period.

4.26 The following table show the percentage of the primary urban network operating below different proportions the speed limit in the morning peak. The statistics are derived from C-Jams data supplied by DfT and are for 2003, the latest data we have available.

	Proportion of network operating below x% of speed limit (cumulative)					
percentage of Speed Limit	Bradford	Calderdale	Kirklees	Leeds	Wakefield	West Yorkshire
50%	29	22	25	30	20	26
60%	48	41	47	49	38	46
70%	67	50	63	68	52	63
80%	82	70	84	82	69	79
90%	91	87	95	90	87	90
100%	98	93	98	94	94	96

Table 4.17 Proportion of Primary Urban Network Operating Below Set Percentages of Speed Limit , 2003

4.27 For the purposes of assessing network efficiency, a figure of 70% of the speed limit has been taken as a benchmark for LTP2. The table shows that over 60% of the network is operating at or below this level, and over one quarter of the network is operating at less than 50% of the posted speed limit. Changes relative to the benchmark of 70% will be reported in future Monitoring Reports**.**

Background Indicator C11 : Peak Spreading Index

4.28 Traffic flows are collected using automatic counters on cordons around the main urban centres in west Yorkshire , (see Mandatory Indicator C2 above and Figures 4.2 to 4.6)

4.29 By examining the ratio of peak hour to peak period flows through time an understanding of the extent of peak spreading can be gained.[2] A fall in the value of this ratio would illustrate peak spreading. Peak spreading can result from motorists choosing to travel earlier (or later) as a result in changes in work practices or being forced to travel earlier (or later) due to congestion. Tables 4.18 to 4.22 show trends in this index since 1990 with the LTP1 baseline of 2000 highlighted.

[2] Hounsall, NB : Transport Planning Systems, 1991, Vol.1 No.3

YEAR	AM Peak Period Inbound Traffic Flows		
	0700 - 1000 (P1)	0800 - 0900 (P2)	Ratio P2/P1
1990	43,660	18,180	0.416
1993	45,450	19,120	0.421
1995	45,340	18,860	0.416
1997	45,800	18,750	0.409
1999	45,600	18,550	0.406
2001	46,790	18,690	0.399
2003	45,530	18,240	0.401
2005	46,370	18,230	0.393

Table 4.18 Bradford Central Cordon : Peak Spreading Ratio

YEAR	AM Peak Period Inbound Traffic Flows		
	0700 - 1000 (P1)	0800 - 0900 (P2)	Ratio P2/P1
1990	19,810	8,550	0.432
1993	21,370	8,940	0.418
1995	22,530	9,480	0.421
1997	22,590	9,120	0.404
1999	22,890	9,360	0.409
2001	22,090	8,970	0.406
2003	23,580	9,480	0.402
2005	23,450	9,330	0.398

Table 4.19 Halifax Central Cordon : Peak Spreading Ratio

YEAR	AM Peak Period Inbound Traffic Flows		
	0700 - 1000 (P1)	0800 - 0900 (P2)	Ratio P2/P1
1990	28,570	11,340	0.397
1993	28,430	11,500	0.404
1995	30,650	12,130	0.396
1997	31,360	12,320	0.393
1999	31,490	12,280	0.390
2001	31,220	12,230	0.392
2003	31,110	12,280	0.395
2005	31,380	12,100	0.386

Table 4.20 Huddersfield Central Cordon : Peak Spreading Ratio

YEAR	AM Peak Period Inbound Traffic Flows		
	0700 - 1000 (P1)	0800 - 0900 (P2)	Ratio P2/P1
1990	87,180	35,600	0.408
1992	94,880	38,140	0.402
1994	88,420	34,630	0.392
1996	88,880	33,890	0.381
1998	92,330	34,380	0.372
2000	93,540	35,790	0.383
2002	96,990	36,840	0.380
2004	98,280	36,560	0.372

Table 4.21 Leeds Central Cordon: Peak Spreading Ratio

YEAR	AM Peak Period Inbound Traffic Flows		
	0700 - 1000 (P1)	0800 - 0900 (P2)	Ratio P2/P1
1992	24,300	9,710	0.399
1994	24,140	9,970	0.413
1996	24,360	9,850	0.405
1998	24,730	9,710	0.393
2000	26,340	10,380	0.394
2002	29,580	11,750	0.397
2004	28,230	10,840	0.384

Table 4.22 Wakefield Central Cordon : Peak Spreading Ratio

4.30 From 2006 traffic flows crossing the central cordons of the main centres will be reported annually and changes will be reported against the LTP2 baseline of 2004/05

Background indicator C12 : Morning Peak Period Car Occupancy

4.31 As part of the morning peak period mode split surveys (see Key Indicator C6 above) the opportunity was taken to record the occupancy of cars and taxis crossing the cordons which will allow trends in vehicle occupancy to be observed in future years. The results of the 2005 occupancy surveys are presented in Table 4.23.

4.32 Table 4.24 shows the changes in average car occupancy for the major centres since 1998. Only in Bradford has car occupancy has increased over the monitoring period.

Centre	Time Period	Direction	% of Cars with One occupant	Average car occupancy
Bradford	am peak	Inbound	77.5	1.28
Halifax	am peak	Inbound	77.0	1.29
Huddersfield	am peak	Inbound	77.6	1.27
Leeds	am peak	Inbound	80.2	1.23
Wakefield	am peak	Inbound	61.2	1.29

Table 4.23 Car Occupancy 2005

Centre	Time Period	Direction	Average Car Occupancy	
			1998	2005
Bradford	am peak	Inbound	1.27	1.28
Halifax	am peak	Inbound	1.30	1.29
Huddersfield	am peak	Inbound	1.27	1.26
Leeds	am peak	Inbound	1.23	1.23
Wakefield	am peak	Inbound	1.32	1.29

Table 4.24 Car Occupancy Changes, 1998 to 2005

4.33 It is hoped that there will be a trend towards a greater number of occupants per car, showing evidence of ride sharing rather than individuals driving alone. It is unlikely that any significant change will occur in the short term but the impact of Travel Plans and travel awareness initiatives should lead to an increase in car sharing in the future.

4.34 Changes in this indicator will be reported annually against a 2005 baseline.

Background Indicator C13 : Mode Share for Travel to Work

4.35 The Travel to Work survey initiated by the West Yorkshire Travel Plan Officers Group in 2004 took place again in March 2005. This year a total of over 24,000 employees took part from companies developing or implementing travel plans across the county.

4.36 The results of the March 2005 survey are shown below in Figure 4. 7

4.37 In future years changes in modal share compared with the LTP2 baseline will be reported in addition to the results of the current year's surveys.

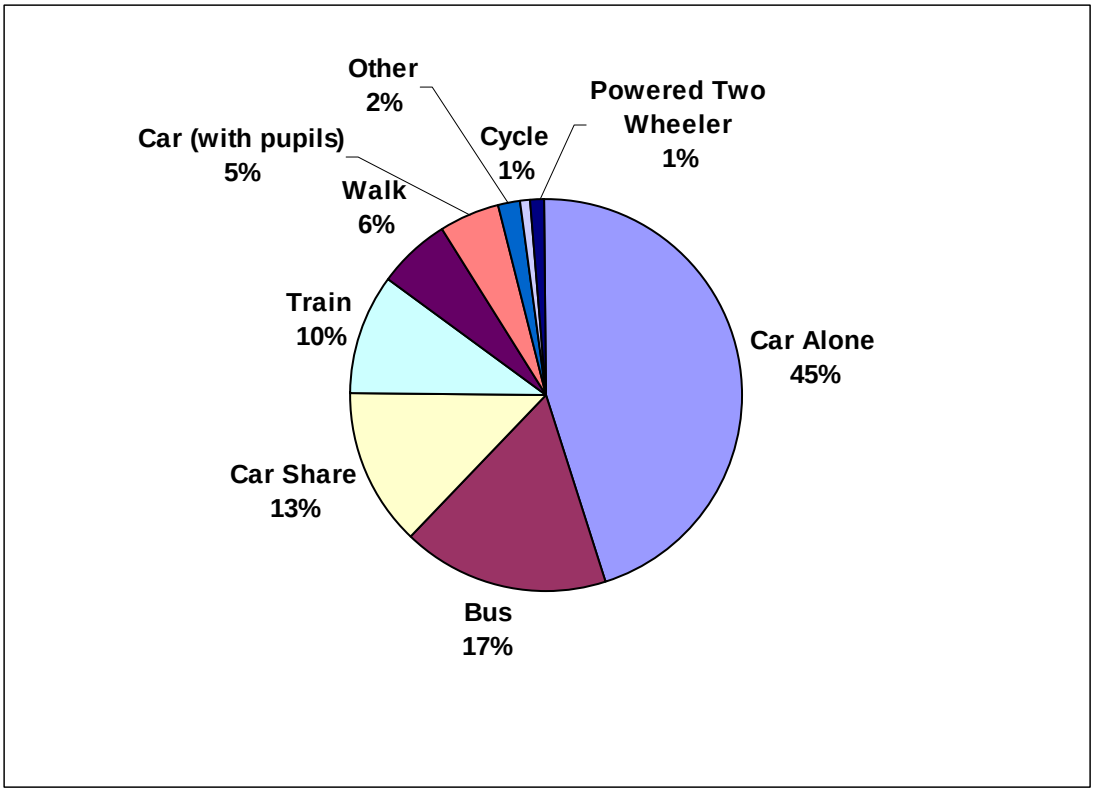


Figure 4.7 West Yorkshire Travel to Work Survey 2005 – Mode Share

Background Indicator C14 : Travel Distance to Work

4.38 Table 4.25 shows the changes in the distance travelled to work in West Yorkshire taken from the 1991 and 2001 Censuses. The table shows a 39% increase in the distance travelled over the 10 year period.

	1991			2001			1991-2001 Total km % Change
	Workplace Pop[n.]	Workplace Distance	Total Km	Workplace Pop[n.]	Workplace Distance	Total Km	
Bradford	166,810	6.8	1,135,976	173,454	8.4	1,457,014	28
Calderdale	70,100	6.1	429,012	72,682	8.0	581,456	36
Kirklees	121,270	6.5	793,106	131,483	8.1	1,065,012	34
Leeds	291,180	9.4	2,745,827	343,799	11.7	4,022,448	46
Wakefield	112,680	7.7	866,509	117,202	9.7	1,136,859	31
West Yorkshire	762,040	7.8	5,966,733	838,620	9.9	8,302,338	39

Excludes those working at or from home

Table 4.25 Distance Travelled to Work in West Yorkshire, 1991 and 2001

4.39 Although the data presented above is from the 10 yearly National Census, data from the enhanced sample size in the National Travel survey will enable more frequent updates to be produced, albeit only at West Yorkshire level.

Background Indicator C15 : Generalised Costs for Private and Public Transport

4.40 In the absence of GPS data for bus journey times, comparable car and bus data from the historic manual surveys (1998-2004) has been used to estimate indicative generalised commuting costs for the five main centres. Three costs have been calculated for each centre:

- Car commuter with free parking at place of work;
- Car commuter using Council controlled long stay off street parking;
- Bus commuter using an annual Countywide Bus Metrocard.

4.41 The generalised costs have been calculated for each centre based on the average commuting distance for car drivers derived from the 2001 census. The values are considerably greater than those used in previous reports, reflecting a general increase in travel distances and the relatively longer distances travelled by car drivers than the average for all modes. Nevertheless, the relative results remains very similar to last year's calculation.

4.42 Table 4.26 shows the estimated indicative generalised costs for each of the district centres where journey time data have been collected. These are also shown graphically in Figure 4.8.

			Generalised cost (pence/day)		
Centre	**Distance (km)**	**Parking charge (p)**	**Car driver**	**Car driver**	***Bus user***
Bradford	12.97	2.01	712	1124	1390
Halifax	12.40	2.70	596	1077	1275
Huddersfield	11.41	2.80	579	1071	1225
Leeds	18.79	5.80	939	1731	1622
Wakefield	14.21	4.00	708	1319	1389

Table 4.26 Estimated Generalised Central Area Commuting Costs 2005

(Based on average car driver journey to work distance to each main centre from the 2001 census)

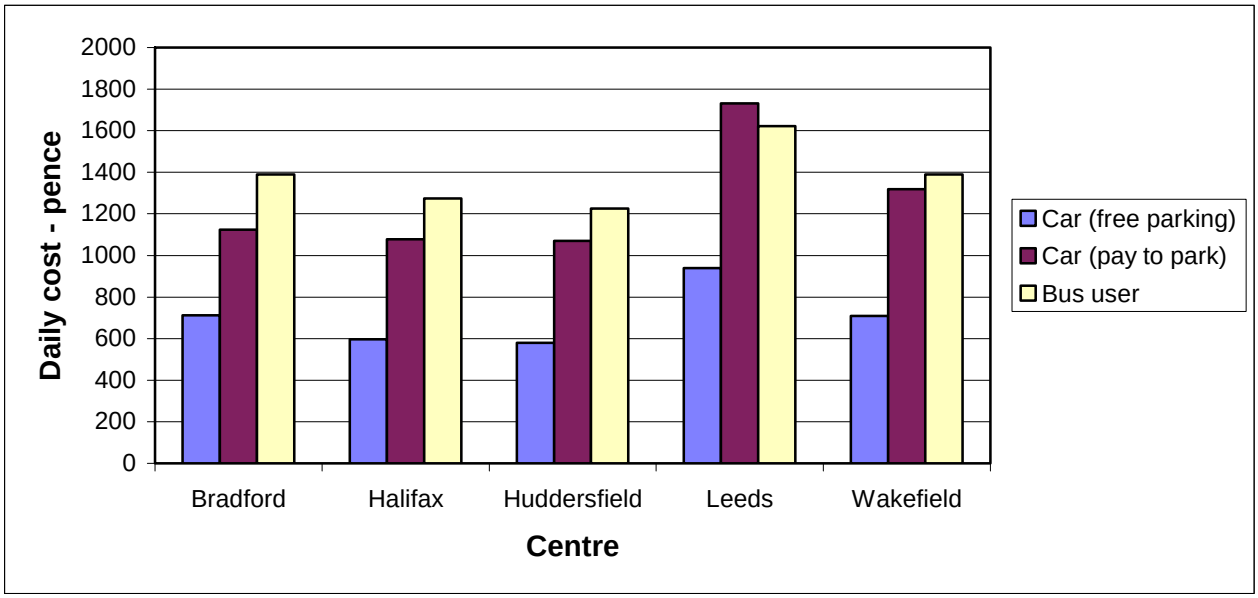


Figure 4.8 Estimated Generalised Central Area Commuting Costs 2005

(Based on average car driver journey to work distance to each main centre from the 2001 census)

4.43 Aside from the changes in assumed journey lengths, the principal changes from last year are that petrol costs have risen by 13% and bus fares (using an annual Metrocard) by 4%. Average parking costs have risen in four of the five centres – the exception being Bradford.

4.44 Leeds remains is the only centre where the cost of commuting by car (for those who have to pay) is greater than the cost of travel by bus. However, the latest increase in the cost of parking in Wakefield has reduced the difference between bus and car travel significantly here.

4.45 It is clear from the generalised cost calculations that commuters who have access to a free workplace parking space (or free on street parking) have a real cost advantage over those who have to pay to park or use public transport.

4.46 For shorter distance commuters the penalties against bus use are proportionately greater because of the amount of walking and waiting time involved in their journey. Nevertheless, census data shows that average car driver commuting distances are significantly greater than for bus users (around twice as long for trips to the main centres) reflecting a greater dispersal of origins and the consequent lack of suitable bus services.

4.47 The impact of additional bus priority measures should, over time, increase average bus speeds in the peaks, however, it is likely that reducing boarding times at stops by the use of prepaid tickets and smartcard technology will have a potentially greater impact throughout the day. Bus user generalised costs are therefore expected to fall.

4.48 Petrol price increases, re-allocation of road space and increased parking charges will increase car user costs. However, the use of other measures to account

for the social costs of car usage, such as road pricing or workplace parking charges, may also be required to achieve significant levels of modal shift.

4.49 Increases in average commuting journey lengths, discussed in more detail below, tend to encourage greater car use because of greater trip dispersal. Road pricing would tend to encourage shorter trips lengths in congested urban areas, but perversely may make longer distance commuting more attractive if relatively uncongested rural roads are priced cheaply.

4.50 The availability of GPS data for journey time information will enable a better picture of year on year changes to be derived, providing comparable information can be obtained from the bus operators.

Background Indicator C16 : The Cost of Travel

4.51 The cost of travel has a direct influence on people's mode choice. This background indicator gives information on the changes in the cost of travel by car and public transport at both the national and local levels since 1974.

4.52 Changes at the national level are shown in Figure 4.9 which shows that, allowing for the effects of inflation :

- The overall cost of travel by car has increased by 2%
- Petrol prices have increased by 23%
- The cost of travel by bus increased by 91% and rail fares increased by 104% over the same period

4.53 A more detailed analysis of recent data (between 1985 and 2004) shows that :

- All motoring costs have increased by 85%
- Petrol prices have increased by 104%
- Public transport fares continue to increase at a greater rate, 178% for bus and 328% for rail
- The cost of travel by public transport is increasing at more than the rate of inflation.

4.54 Figure 4.10 shows actual changes in the cost of transport locally since 1985 and Figure 4.11 shows real changes over the same period. The figures show that ;

- Bus fares have increased by 41% and rail fares by 117%, far greater than private transport costs which actually fell between 1985 and 2004.
- Public transport fare rises are greater than the rate of inflation.

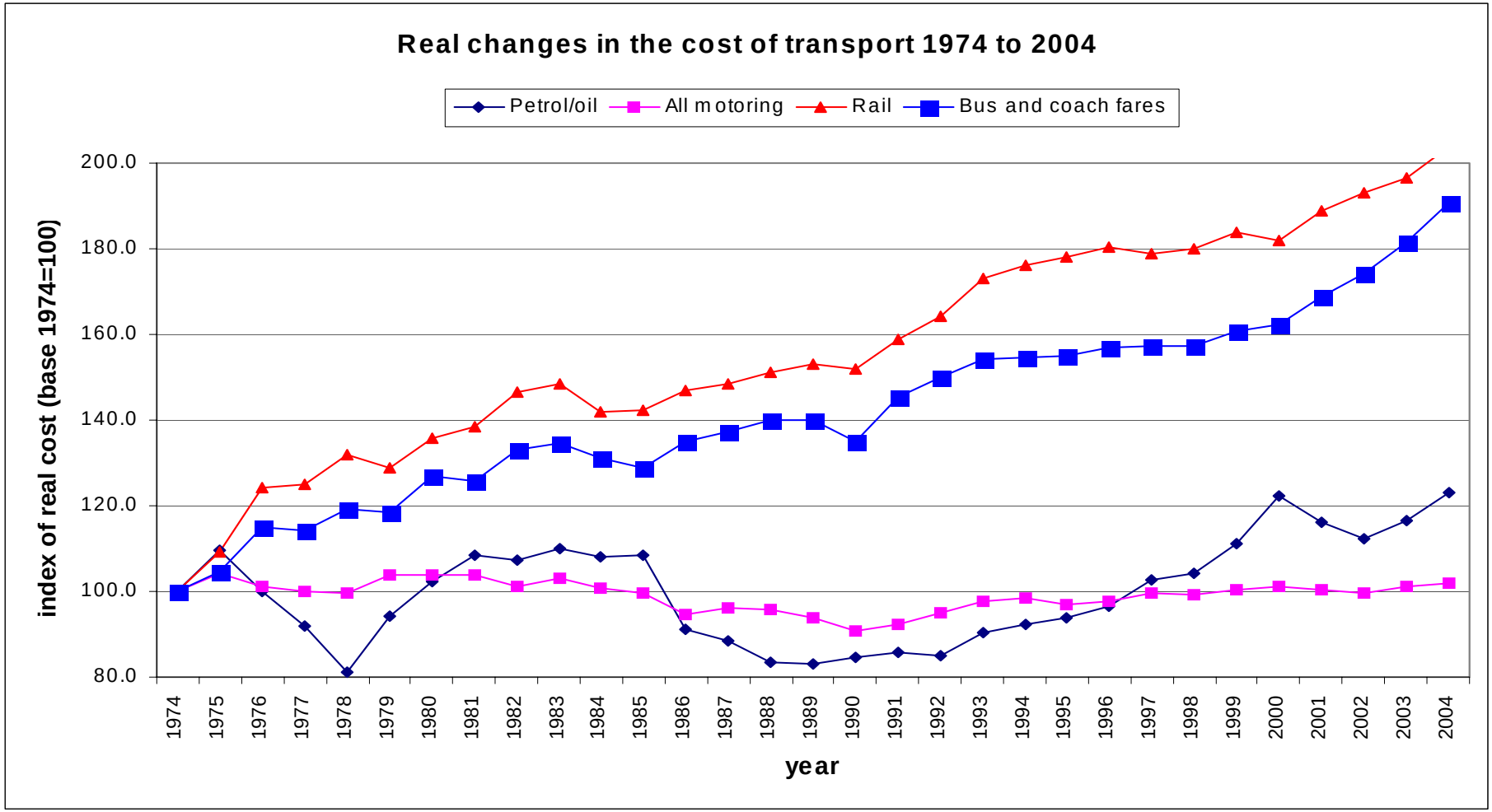


Figure 4.9 Change in National Transport Costs 1974 to 2004.

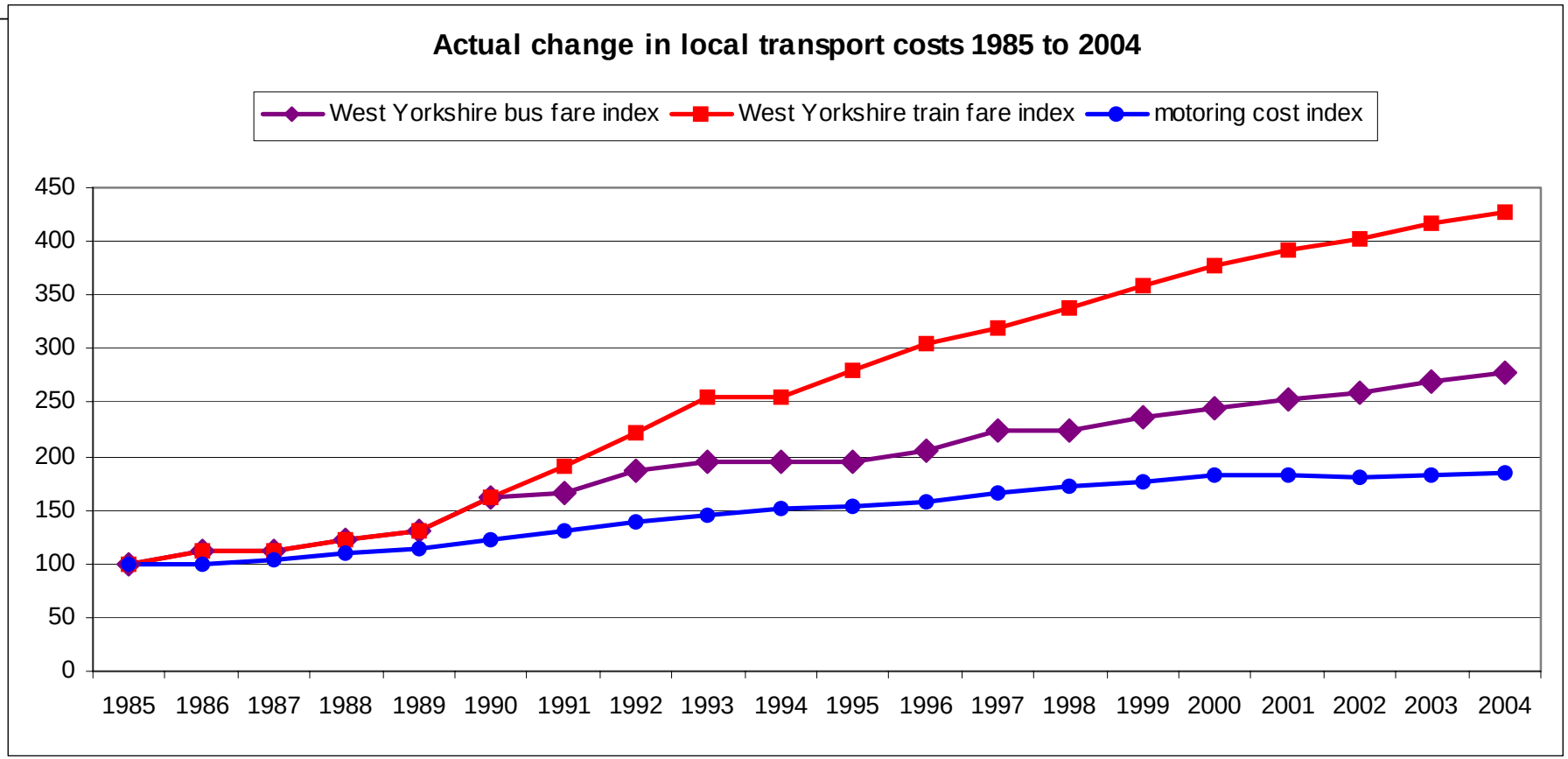


Figure 4.10. Actual Change in Local Transport Costs 1985 to 2004.

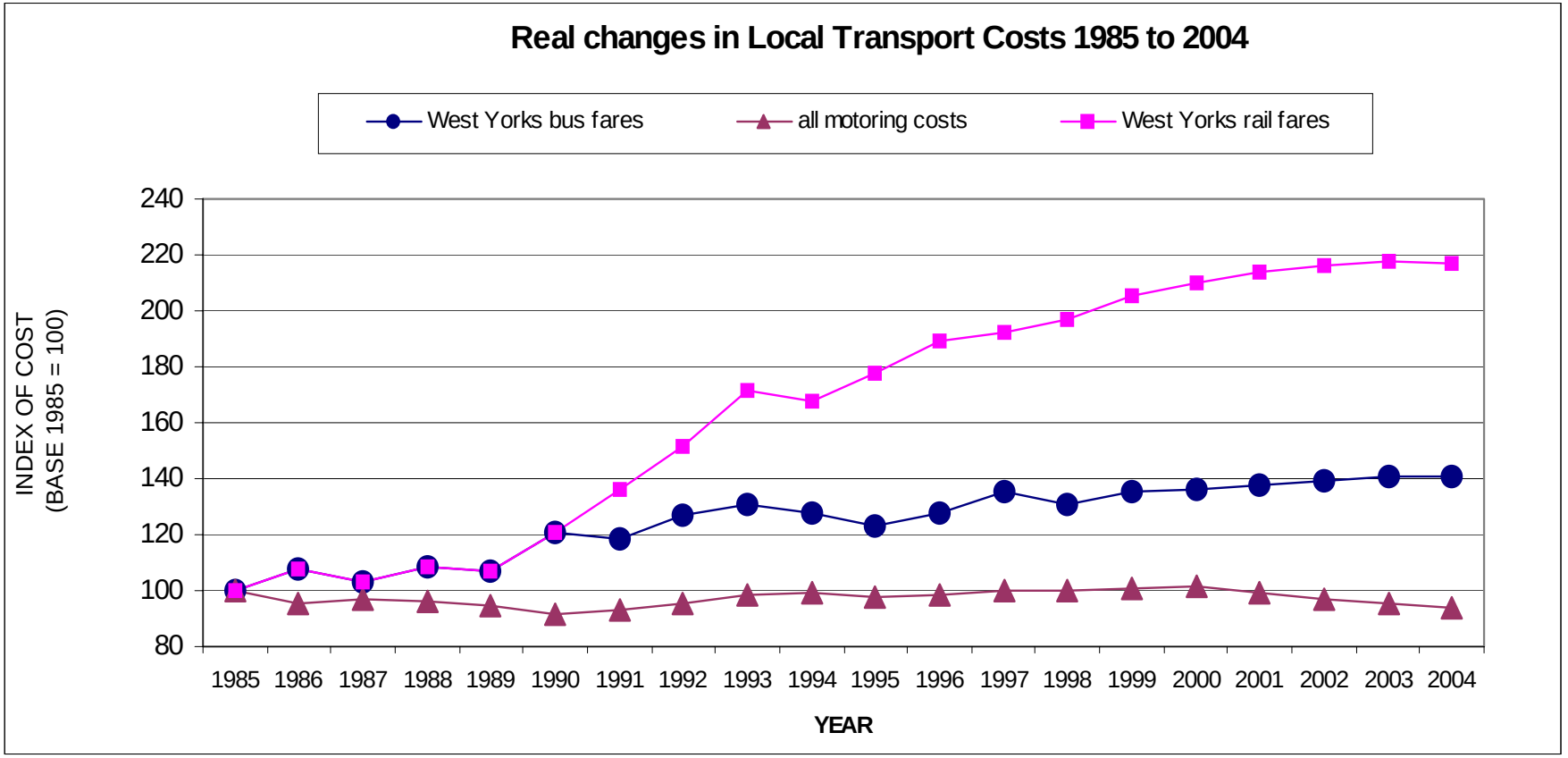


Figure 4.11. Real Changes in Local Transport Costs 1985 to 2004.

Background Indicator C17 : All Day Commuter Parking Supply and Costs

4.55 It is widely accepted that control of all day commuter parking is a powerful demand management tool. In past years, there has been no common definition, which has made it difficult to assess the relative effectiveness of measures in the different centres. For consistency, the following definition has been agreed for monitoring purposes and is used for all centres:-

All day commuter spaces are defined as those where the maximum stay is greater than 8 hours, or where the cost of parking for more than 8 hours is less than 1.5 times the average cost of council off street long stay parking for an equal duration.

4.56 Parking inventories have been conducted in all major centres in the region to provide baseline data against which future changes can be measured. Table 4.27 shows the relative size of the parking study areas for each Centre, whilst inventory data are presented in Table 4.28.

Centre	Approximate radius of parking survey area (Metres)
Bradford	1150
Halifax	500
Huddersfield	900
Dewsbury	500
Leeds	700
Wakefield	750

Table 4.27 Size of Parking Survey Areas

Parking	Type	Bradford	Halifax	Huddersfield	Dewsbury	Leeds	Wakefield
Public Short Stay	Council	1681	1598	2,701	909	2123	839
	Private	2941	484	1,438	934	3057	80
	Total	4622	2082	**4,139**	**1,843**	5180	919
Public All Day Commuter	Council Free	5123	344	790	501	78	61
	Council Pay	1527	976	1959	466	1972	1438
	Private	1668	629	150	0	4872	2186
	Total	8318	1949	**2,899**	**967**	6922	3685
Other	Customer	3903	3194	1,953	1,312	1507	3754
	PNR	11822	2825	6,925	1,107	10415	3472
	Permit	2063	1176	1,241	174	630	1823
Total		30728	11226	**17,157**	**5,403**	24654	13653

Table 4.28 Parking Inventory 2005

4.57 The progress made by the districts in raising parking charges is shown below in Table 4.29. This shows the average cost of council controlled all day commuter parking, where charges are levied, and the % change in parking charges 1997 - 2005. For LTP2 changes will be reported against a 2004/05 baseline.

Centre	Cost for stay of > 8 hrs - 2005	% change in council controlled all day parking charges (for stay of > 8hrs) 1997 - 2005
Bradford	£1.83	7%
Halifax	£2.70	71%
Huddersfield	£2.80	65%
Dewsbury	£2.80	65%
Leeds	£5.80	64%
Wakefield	£4.00	80%

Table 4.29 Average Cost Of Council Controlled All Day Parking And Changes In Parking Charges 1997 – 2005. (Where Charges Apply)

4.58 If commuters are to be encouraged to use alternative modes to the car then the number of commuter parking spaces in centres should not increase. Charges for all day parking should continue to increase at greater than the rate of inflation.

4.59 It must be recognised that the effect of any increases in long stay parking charges will be limited by the influence of both Private Non Residential (PNR) parking and, to a lesser extent, by privately operated publicly available long stay parking. This is clearly illustrated in Table 4.30 which shows the percentage of total all day parking provision in the main centres actually under council control.

Centre	% of all day parking under council control*	Average cost of council controlled all day parking
Bradford	33%	£1.83
Halifax	28%	£2.70
Huddersfield	28%	£2.80
Dewsbury	47%	£2.80
Leeds	12%	£5.80
Wakefield	22%	£4.00

Table 4.30 Percentage of Total All Day Parking Under Direct Council Control

* Spaces under council control are defined as public on street / off street spaces over which the council has regulatory authority.

4.60 Given the importance of parking control as a demand management tool comprehensive inventories of all parking spaces will be undertaken every 5 years and changes in parking charges will be reported annually for the main centres.

CHAPTER 5 SAFER ROADS

Introduction

5.1 The following 7 indicators have been chosen to monitor our progress towards the “Safer Roads” strategy in LTP2. Progress towards LTP2 targets will be measured using 3 mandatory and 1 local key indicator. The remaining 3 indicators are background trend indicators which will help assess overall progress for this key strategy area.

Mandatory Indicator S1 : All Road User Casualty Trends

5.2 The number of people injured in road traffic accidents has been monitored for many years. Data is collected continuously on the numbers of fatal, serious and slight casualties throughout West Yorkshire via the West Yorkshire Police Stats 19 process. In 2004, 12,031 casualties were recorded on West Yorkshire’s roads, a further decrease on the total recorded in 2003 and a marked reduction on the average over the years 1994 - 1998, which has been set by National Government as the base for all their casualty reduction targets. The road casualty trends for West Yorkshire are shown in Table 5.1 and Figure 5.1

Year	KSI *	Fatal	Serious	Slight	Total
1994 - 1998 average	1,484	115	1,369	11,391	12,876
2000	1,299	120	1,179	12,426	13,725
2001	1,331	144	1,187	11,807	13,138
2002	1,319	115	1,204	11,648	12,967
2003	1,238	102	1,136	11,566	12,804
2004	1,215	116	1,099	10,816	12,031
% Change 2004 cf. 1994 -1998 average	-18%	+0.9%	-20%	-5.0%	-6.6%
% Change 2004 cf. 2003	-1.9%	+14%	-3.3%	-6.5%	-6.0%

** Killed or Seriously Injured*

Table 5.1 West Yorkshire Road Casualty Trends

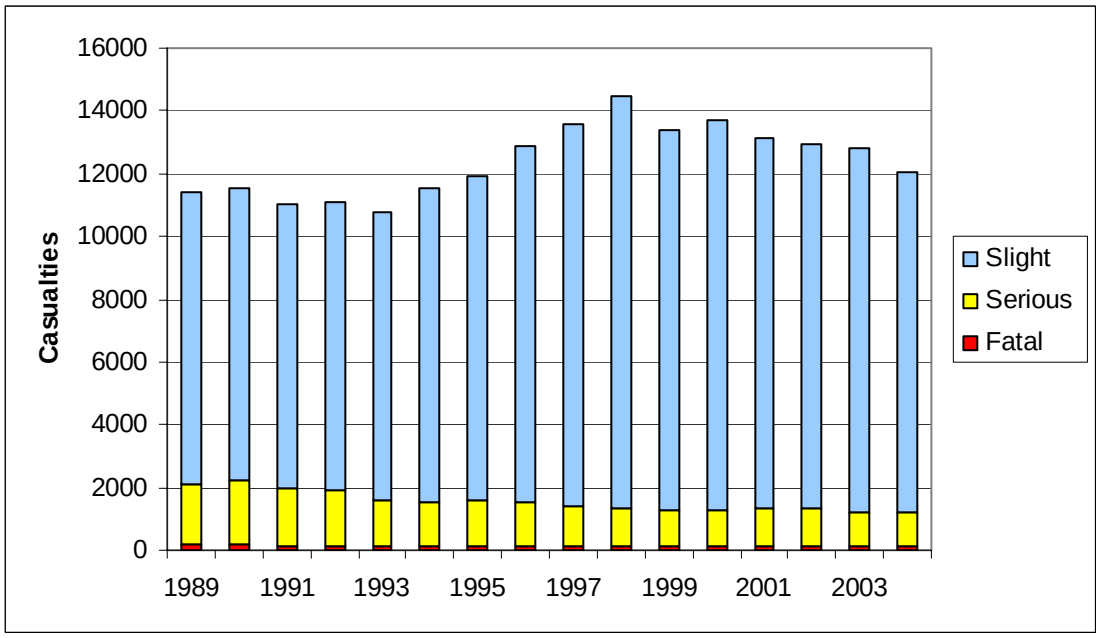


Figure 5.1 West Yorkshire Road Casualty Trends Since 1989

5.3 The West Yorkshire authorities will continue to monitor data on road casualties and report progress towards the LTP2 and National Targets in future monitoring reports.

Mandatory Indicator S2 : Casualty Trends for Children

5.4 The number of children injured in road traffic accidents has been monitored for a number of years. The trends are shown in Table 5.2 and Figure 5.2

Year	KSI *	Fatal	Serious	Slight	Total
1994 - 1998 average	273	13	260	1,732	2,004
2000	230	8	222	1,700	1,930
2001	227	13	214	1,550	1,777
2002	161	7	154	1,448	1,600
2003	203	4	199	1,380	1,583
2004	148	8	140	1,234	1.382
% Change 2004cf. 1994 -1998 average	-46%	-39%	-46%	-29%	-31%
% Change 2004 cf. 2003	-27%	+100%	-30%	-11%	-13%

** Killed or Seriously Injured*

Table 5.2 West Yorkshire Road Casualty Trends for Children

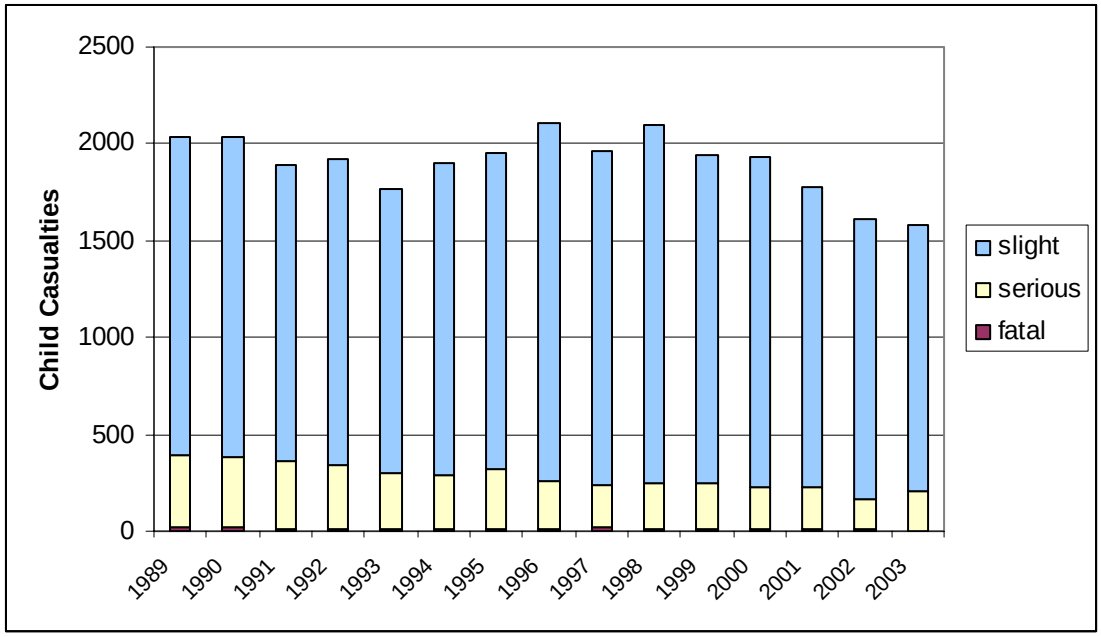


Figure 5.2 West Yorkshire Road Casualty Trends for Children since 1989

5.5 The situation for child casualties continues to show a reduction in the total number of injuries, as does the number of children seriously injured. However the number of children killed doubled during 2004 compared with 2003 showing the volatility of the numbers. Overall the figures show that there has been a reduction of over 30% compared with the 1994-98 average and the trend is still downwards. The total number of child injuries was again the lowest level since 1993. The number of children killed each year, whilst at a low level, shows wild fluctuations from year to year.

5.6 The West Yorkshire authorities will continue to monitor data on accidents involving children and report progress towards both LTP2 and National Targets. Due to the volatility of the statistics, trends will be reported using 3-year averages.

Mandatory Indicator S3 : Slight Casualty Numbers

5.7 Table 5.3 below shows the trend in slight casualties in West Yorkshire since 1999, together with the average for 1994 to 1998 which is the baseline for national and LTP2 targets.

Year	Number of slight Casualties
1994 to 1998 Ave	11,391
1999	12,340
2000	12,426
2001	11,807
2002	11,648
2003	11,566
2004	10,818

Table 5.3 West Yorkshire : Number of Slight Casualties, 1994/98 to 2004

5.8 The West Yorkshire authorities will continue to monitor data on the number of slight casualties on West Yorkshire roads and report progress towards both LTP2 and National Targets.

Local Key Indicator S4 : Casualty Trends for Different Road User Groups

5.9 The number of casualties in the different priority groups has been monitored for a number of years and will continue to be monitored and changes reported annually. The West Yorkshire trends for different groups of road user are shown in Table 5.4 for KSI and in Figure 5.3 for all casualties.

Year	Pedestrians	Pedal Cyclists	M/cycle Rider	M/cycle Pillion	Car Driver	Car Passenger
1994 - 1998 average	525	106	145	13	378	232
2000	450	80	199	8	360	149
2001	378	91	206	20	379	202
2002	376	62	233	25	385	196
2003	340	101	216	19	323	182
2004	360	78	204	24	300	194
% Change 2004 cf. 1994 - 1998 ave.	-31%	-26%	+41%	+85%	-21%	-16%
% Change 2004 cf. 2003	+5.9%	-23%	-5.6%	+21%	-7.1%	+4.4%

Table 5.4 West Yorkshire Killed and Seriously Injured (KSI) Trends for Different Road Users

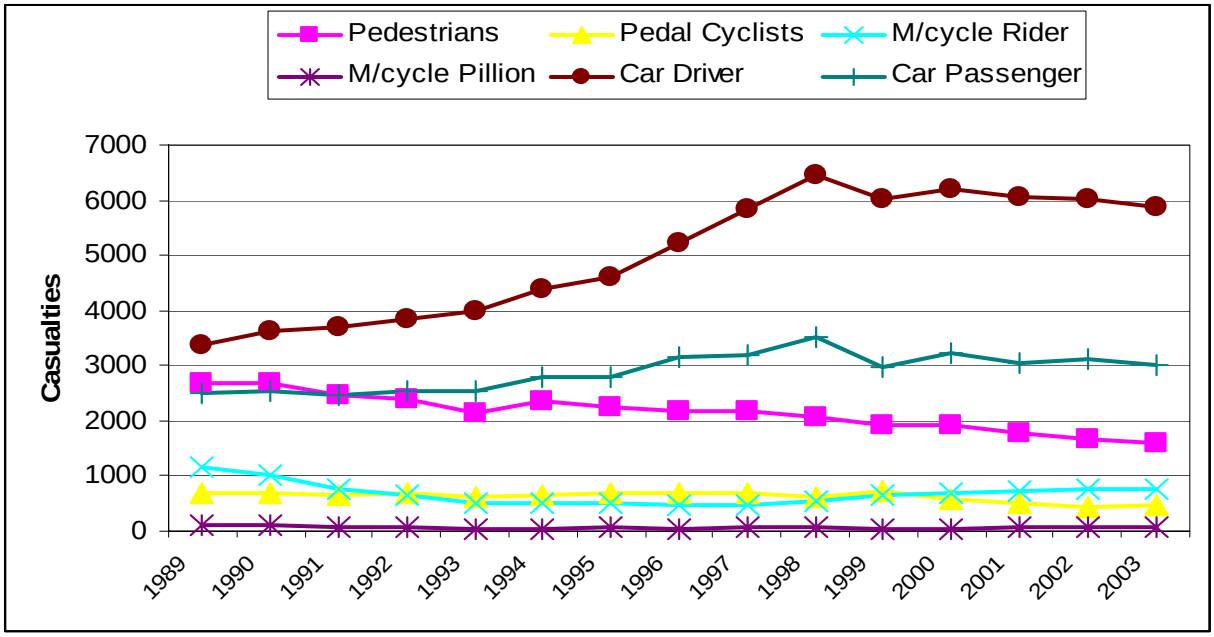


Figure 5.3 West Yorkshire Casualty Trends for Different Road Users Since 1989

5.10 The West Yorkshire authorities will continue to monitor data on all road casualties. In particular progress towards the local target of reducing pedestrian casualties will be reported in future monitoring reports.

Background Indicator S5 : Town Centre Car Park Spaces with CCTV Cameras

5.11 An important element of the overall safe car journey is having a secure and safe place to leave the vehicle. Table 5.5 shows the number of off street car park spaces with CCTV coverage in the major town and city centres in West Yorkshire. The data refers to council owned car park spaces only.

	Year	Bradford	Halifax	Huddersfield	Leeds	Wakefield
No. of Spaces with CCTV	2000	2,021	441	1,902	2,708	1,743
	2001	856	441	2,187	2,708	1,705
	2002	1,576	441	2,667	2,708	1,266
	2003	1,576	441	2,764	2,931	1,266
	2004	1,551	441	3,087	2,137	1,215
No. of Spaces without CCTV	2000	1,159	964	925	153	0
	2001	889	964	890	153	0
	2002	124	964	1,048	153	439
	2003	124	964	1,018	140	439
	2004	93	964	668	831	538
% of Spaces with CCTV	2000	63%	34%	67%	95%	100%
	2001	49%	34%	71%	95%	100%
	2002	93%	31%	72%	95%	74%
	2003	93%	31%	73%	96%	74%
	2004	94%	31%	82%	72%	69%

Table 5.5 Local Authority Off-Street Car Parks with CCTV Surveillance

5.12 It is envisaged that the number and percentage of car parking spaces with CCTV cameras will increase in the future, not just in the main centres but also in other town centres in West Yorkshire.

Background Indicator S6 : Rail/Bus Stations with CCTV Cameras

5.13 As with road users, the added security of CCTV coverage at railway stations is an important factor in safer travel. Table 5.6 shows the number of railway station car parks so covered. Changes to this coverage will be reported in future monitoring reports.

	Rail station car parks with CCTV	Of which staffed rail stations	Of which unstaffed rail stations
1999/00	22 (43%)	10 (63%)	12 (34%)
2004/05	25 (45%)	12 (67%)	13 (35%)

Table 5.6 Rail Station Car Parks with CCTV Surveillance

Background Indicator S7 : Town and City Centre Streets with CCTV Cameras

5.14 Table 5.7 shows the changes in CCTV coverage in the major town and city centres since 1998 through the percentage of streets covered by cameras.

	Bradford	Halifax	Huddersfield	Leeds	Wakefield
1998	40%	0	90%	60%	93%
1999	40%	5%	90%	60%	93%
2000	40%	15%	90%	70%	93%
2001	40%	30%	94%	70%	93%
2002	55%	40%	94%	73%	93%
2003	60%	40%	95%	80%	93%
2004	65%	40%	96%	87%	93%

Table 5.7 Percentage of City Centre Streets Covered by CCTV

5.15 It is envisaged that the percentage of streets covered by CCTV in Bradford, Halifax and Leeds will continue to increase, but Huddersfield and Wakefield are probably close to their realistic maximum. It is also expected that more of the smaller towns will be covered by CCTV in the future.

5.16 Changes to CCTV coverage will be reported in future monitoring reports.

CHAPTER 6 BETTER AIR QUALITY

Introduction

6.1 The following 6 indicators are being used to monitor our progress towards the “Better Air Quality” strategy in LTP2. Progress towards targets in this area will be measured using 2 mandatory and 1 local key indicators. The remaining 3 indicators are background trend indicators which will help assess overall progress for this key strategy area.

6.2 Road transport emissions remain the most significant source of urban air pollution within West Yorkshire. High levels of exhaust emissions can result from the effects of traffic congestion, which is most common during peak periods.

6.3 Road transport emissions of nitrogen dioxide (NO_2) and particulates (PM_{10}) contribute in the region of 75% and 50% respectively, towards total urban emissions. NO_2 and PM_{10} are the two major transport pollutants of concern.

Mandatory Indicator AQ1 : NO_2 Levels in Air Quality Management Areas

6.4 Air quality is currently measured at Haslewood Close in the Ebor Gardens AQMA in Leeds. The real time monitoring station is close to York Road, the major road traffic source of NO_2

6.5 The baseline for LTP2 monitoring is an annual average NO_2 concentration of 45.8 µg/m^3 in 2004.

6.6 Annual changes will be recorded against this baseline, and further AQMAs will be included during the course of LTP2.

Mandatory Indicator AQ2 : Area Wide Traffic Flows

6.7 The West Yorkshire Long Term Monitoring Programme (LTMP) of automatic traffic counts was established in 1979 to monitor traffic flows at about 400 locations across West Yorkshire. In 1980, a sub-set of this programme, stratified to give a representative coverage of A, B and C/Unclassified roads was created to provide a statistically robust method for calculating changes in daily traffic flows across West Yorkshire. The methodology was modified in 2003 in that the flows obtained were weighted by road lengths in order to give a better estimate of changes in traffic volumes rather than vehicle flows. The location of the counting sites is shown in Figure 6. 1

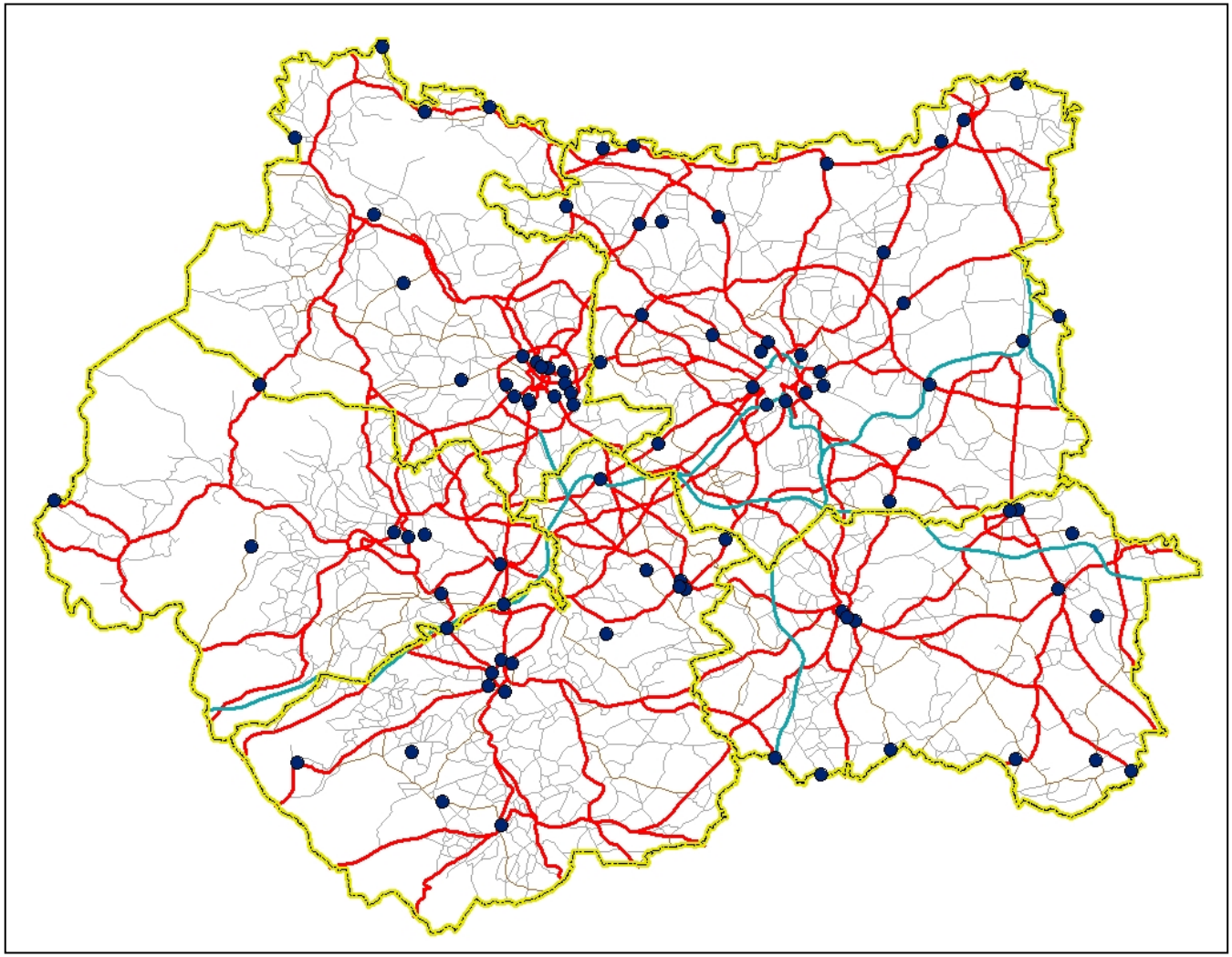


Figure 6.1 Location of Annual Traffic Growth Count Sites

6.8 Table 6.1 below shows the change in the index of traffic volumes since 2000 relative to the LTP2 base year of 2004.

Year	Index of Traffic Volumes
2000	97.5
2001	98.3
2002	97.4
2003	100.2
2004	100
Change 2000 to 2004	+ 2.5

Table 6.1 Changes in Traffic Volumes from Long Term Monitoring Programme, 2000 to 2004

6.9 Changes to the index will be reported annually and will incorporate the latest road length statistics.

6.10 An alternative source of data for this indicator is data supplied by DfT on annual vehicle kilometres obtained from the National Traffic Census (NTC). Table 6.2 shows traffic volume changes since 2000 using this source.

Year	Index of Traffic Volumes
2000	92.0
2001	93.0
2002	96.0
2003	99.3
2004	100
Change 2000 to 2004	+ 8.0

Table 6.2 Changes in Traffic Volumes from National Traffic Census, 2000 to 2004

6.11 The changes in flow calculated by NTC data are in the order of 3 times greater than that indicated from our LTMP monitoring. We have adopted the first methodology to derive our LTP2 target for the following reasons :

- Consistency with LTP1 and District strategy monitoring and targets
- A detailed analysis of the NTC statistics suggests that the majority of growth is on unclassified roads. The methodology used by DfT to establish vehicle kilometres from counts on minor roads is currently subject to revision following the Quality Review of Road Traffic Statistics.

6.12 We will continue to report both sets of statistics for this indicator but will track our progress towards the LTP2 target using figures derived from the LTMP.

Local Key Indicator AQ3 : Area Wide Road Transport Emissions : NO_x , CO_2

6.13 Road transport emissions of oxides of nitrogen (NO_x) which contains a mixture of nitric oxide (NO) and nitrogen dioxide (NO_2), and carbon dioxide (CO_2), the primary "greenhouse gas", have been predicted for the West Yorkshire trunk / principal road network. Annual emission rates were predicted for NO_x using the latest DfT / DEFRA approved vehicle emission factors (published in 2002 by Casella Stanger and AEA Technology). The DMRB vehicle emission factors published in 1999, were used to predict emissions of CO_2.

6.14 All calculated emission rates took account of the observed annual traffic growth for all road types in each District and actual traffic count data on the Motorway network. Some coarse assumptions have been used to approximate traffic speeds and the percentage of Heavy Duty Vehicles within the modelled network based on previously used data. It should be noted that annual emission rates are sensitive to the input of speed data and may underestimate the exacerbating effects of local congestion during peak periods.

6.15 Table 6.3 provides a summary of predicted road transport emissions for the West Yorkshire trunk / principal road network. Approximately 17,956 tonnes and 2.82 million tonnes / year of NO_x, and CO_2 emissions respectively, have been predicted for the year 2004. The annual emission rates for NO_x and PM_{10} continues to fall across the region, whilst there is a small increase for CO_2 emissions. Future changes will be recorded against this baseline.

Year	**2000 (Base Year)**	**2002**		**2003**		**2004**	
Pollutant	**Tonnes / yr**	**Tonnes / yr**	**% Change from base year**	**Tonnes / yr**	**% Change from base year**	**Tonnes / yr**	**% Change from base year**
NOx	24,459	20,802	- 15.0%	19,240	- 21.5%	17,956	-26.6%
CO_2	$2.787*10^{-6}$	$2.787*10^{-6}$	0.0%	$2.817*10^{-6}$	+ 1.1%	$2.817*10^{-6}$	+1.1%

Table 6.3 Summary of Road Transport Emissions : NO_x and CO_2

Background Indicator AQ4 : Air Quality Monitoring in Town and City Centres

6.16 Road transport emissions remain the most significant source of urban air pollution within West Yorkshire. High levels of exhaust emissions can

result from the effects of traffic congestion, which is most common during peak periods.

6.17 Road transport emissions of nitrogen dioxide (NO_2) and particulates (PM_{10} reported separately as AQ5) contribute in the region of 75% and 50% respectively, towards total urban emissions. NO_2 and PM_{10} represent the two major transport pollutants of concern.

6.18 Figure 6.2 illustrates the results of the annual average NO_2 monitoring within urban centres of each District. During the year 2004, all Districts except Wakefield complied with the annual average standard of 40 $\mu g/m^3$. Over the 7 year period, there is a general trend of improving air quality, with respect to background levels of NO_2. This trend provides an indication that road transport emissions of NO_2 are slowly declining.

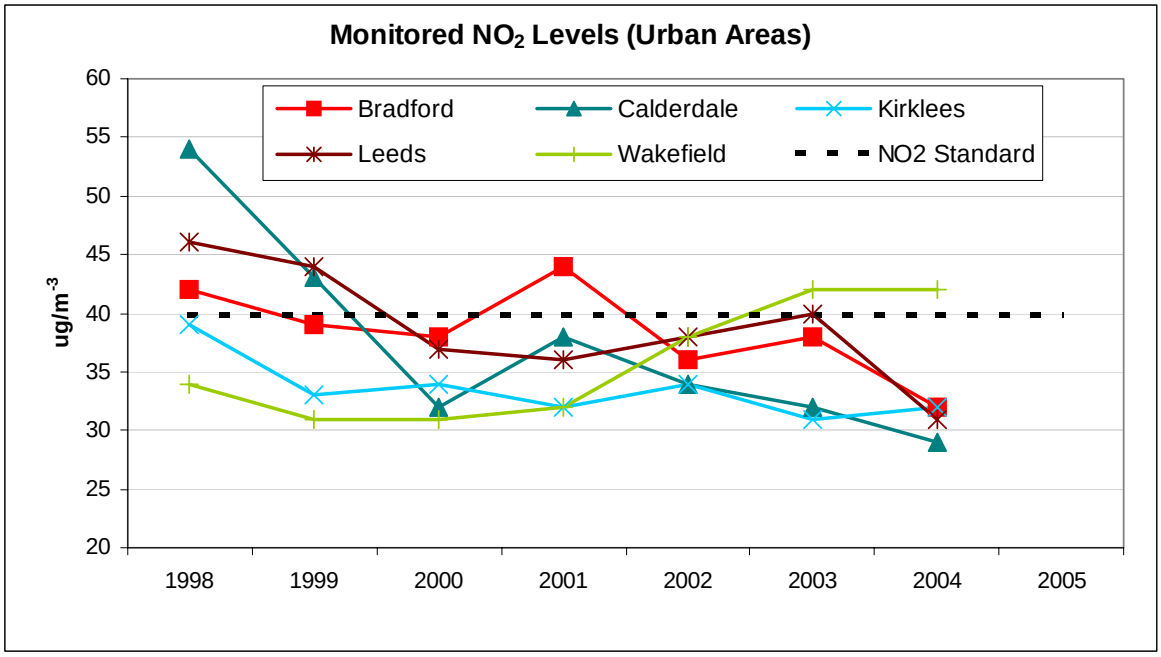


Figure 6.2 West Yorkshire Annual Average NO_2 Monitoring – Summary Data

Background Indicator AQ5 : Area Wide Road Transport Emissions : PM_{10}

6.19 Figure 6.3 indicates that all Districts comply with the annual average PM_{10} standard of 40 μg/m^3. Since monitoring began in 1998 there has been little change in general background PM_{10} air quality within urban centres. All Districts reported a reduction in Annual Average PM_{10} levels in 2004 except Bradford, which recorded the same level as for 2003.

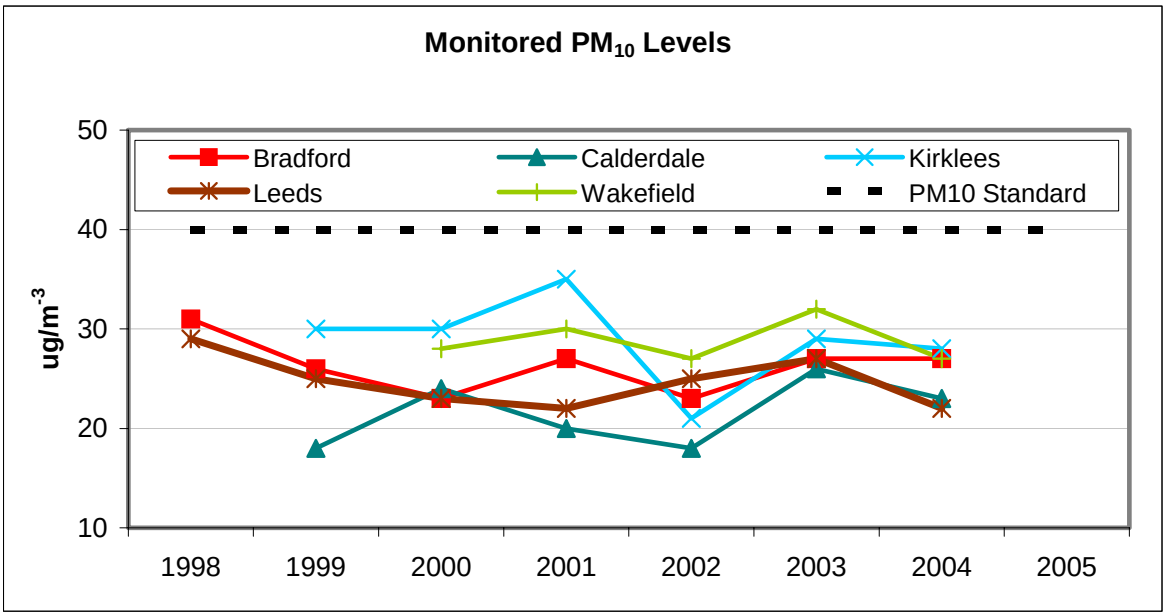


Figure 6.3 West Yorkshire Annual Average PM_{10} Monitoring

Background indicator AQ6 : Low Noise Road Surfacing

6.20 Figure 6.4 shows the approximate lengths roads that have been re-surfaced with 'low noise' asphalt over the previous four years. In total, there has been approximately 363km of 'low noise' asphalt have been laid in West Yorkshire between the years 2000 – 2005. This figure includes 48km laid by the Highways Agency on motorways and trunk roads. Approximately 74km. of low noise surfacing was laid in 2004/05

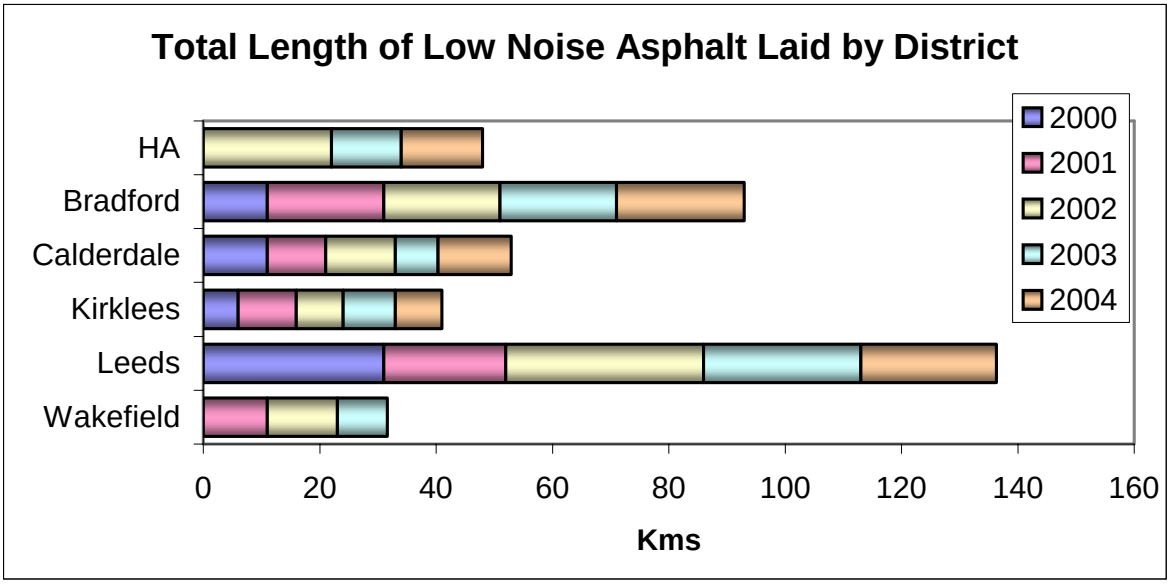


Figure 6.4 Total Length of Low Noise Asphalt Laid by District , 2000 to 2004

6.21 Figure 6.5 compares the actual lengths of 'low noise' asphalt laid within West Yorkshire to an approximate percentage coverage of the trunk / principal road network within each district. Taken as a whole approximately 25% of the trunk / principal road network within West Yorkshire is surfaced with low noise asphalt.

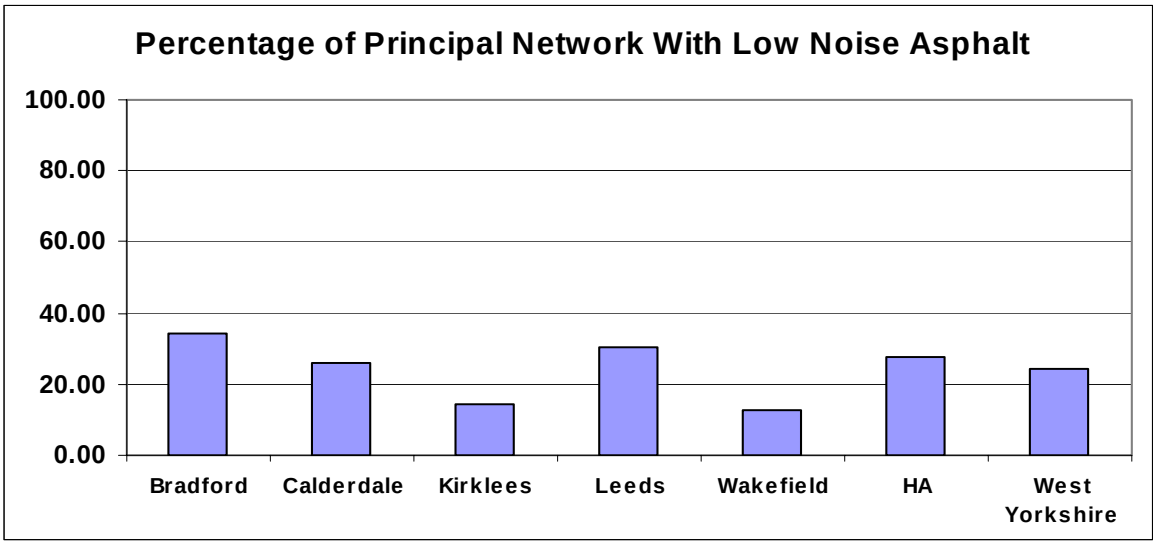


Figure 6.5 Percentage of Principal Road Network with Low Noise Asphalt

6.22 The use of low noise asphalt will continue to be monitored and reported annually.

CHAPTER 7 ASSET MANAGEMENT

Introduction

7.1 The following 4 indicators have been selected to monitor our management of the transport assets of West Yorkshire. Progress towards LTP2 targets will be measured using 2 mandatory indicators and 2 local key indicators.

7.2 West Yorkshire averages for all road and footway condition performance indicators are calculated from weighted lengths, not an average of the five District values.

Mandatory Indicator AM1 : Principal, Non-principal and Unclassified Road Condition

7.3 The BVPI's for road condition surveys are being revised and renumbered and new data will be presented for BVPI 97a (reclassified as BVPI 224a) in the first LTP2 Progress Report. This will be based on data collected by scanner methodology.

7.4 Currently , BVPI 96 (now BVPI 223) measures the percentage of Principal Roads which have reached the point at which repairs to prolong their future life should be considered. For 2004-05 this has been measured using a TRACS type survey (TTS). The results are as follows:-

District	Result
Calderdale	39%
Kirklees	45%
Leeds	26%
Wakefield	29%
Weighted Ave.	36%

7.5 Bradford commissioned their surveys but accreditation of the provider's machine was delayed and they consequently have no result. The available results follow the same pattern as previous surveys in terms of worst and best performance. However they are some 20% to 66% higher than data from deflectograph surveys. Similar increases across the country show that the survey methods do not give comparable results and this data cannot be used to map trends from previous BVPI 96 results.

7.6 Leeds an Bradford undertook some TTS in 2003-04 and calculated values of 47% and 45% respectively on their sample data. However the machines were not accredited and meaningful comparisons cannot be made.

7.7 However all West Yorkshire authorities continue to undertake deflectograph surveys of their Principal Roads with results as shown below. The weighted averages for 2004/05 suggest a slight decline in condition but the general trend is still positive. Authorities now need to sustain the recent

levels of investment in the maintenance of principal roads in order to show continuous improvement in condition.

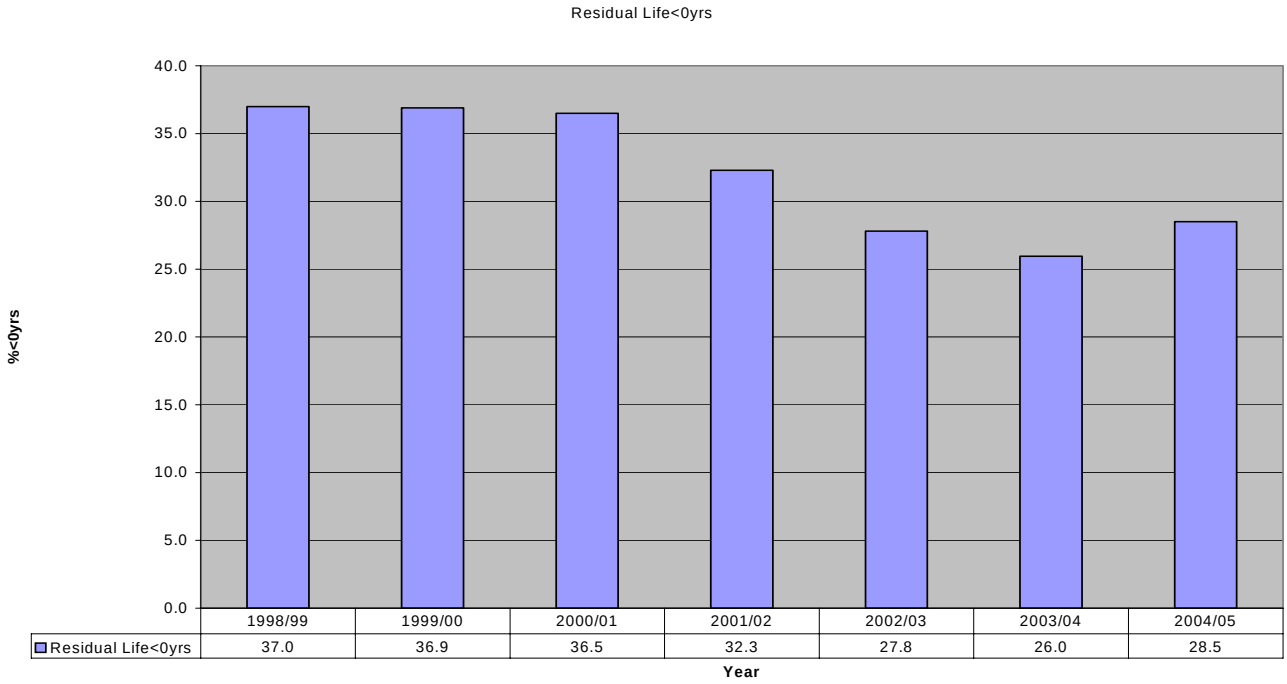


Figure 7.1 Percentage of the Roads Network with Negative Residual Life, Derived from Deflectograph Surveys.

7.8 In addition to carrying out deflectograph surveys, three of the five West Yorkshire Authorities also carry out UKPMS CVI surveys on their principal road network. The results are all below 10% which show that the visual condition of the road surface is much better than the structural condition.

7.9 BVPI 97 measures the percentage of Non-Principal Roads needing structural maintenance work. The indicator was introduced in 2000 for classified non-principal roads (97a, to be BVPI 224a) and in 2001 for unclassified roads (97b, to be 224b). It is currently calculated using UKPMS accredited visual surveys.

7.10 The weighted average value for BVPI 97a is 12.8% which is just outside the upper quartile for both the metropolitan authorities and England. This is the third year where the result has been around 13% and indicates that deterioration has been arrested.

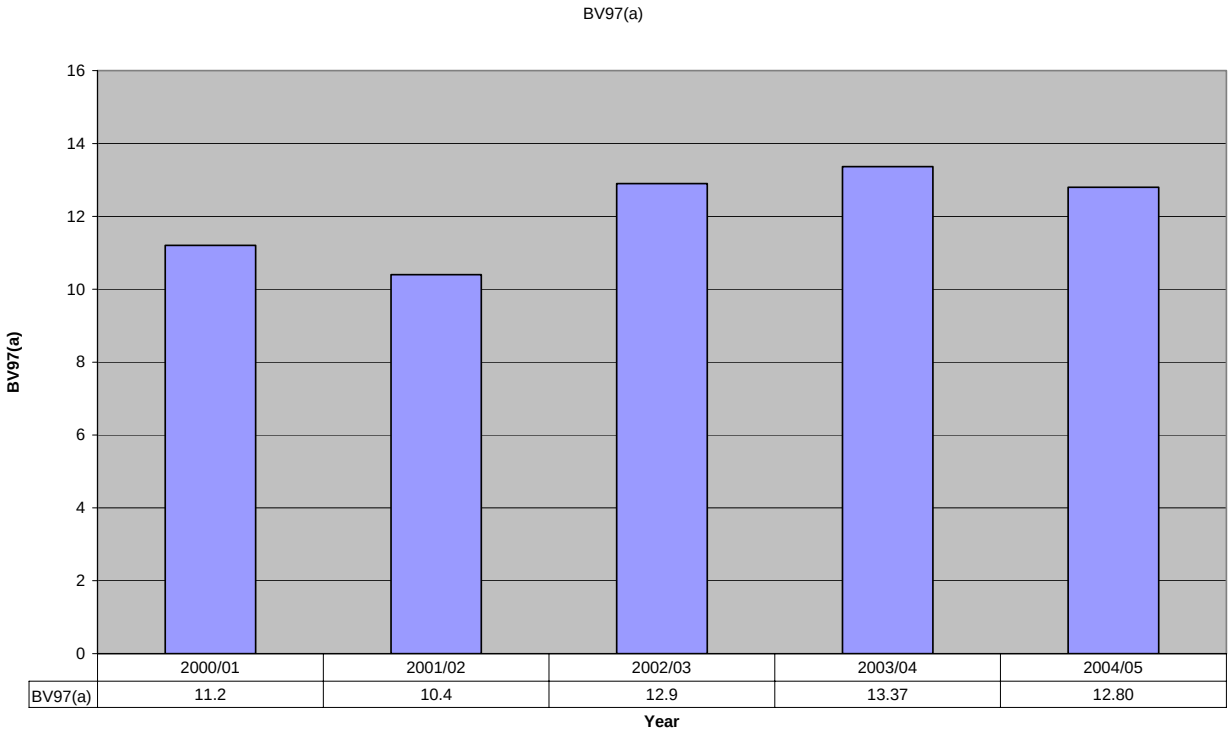


Figure 7.2 *BVPI 97(a) Percentage of Non-principal Classified Roads with Significant Defects (Visual Inspection).*

7.11 2004-05 was the fourth year for the calculation of BV97(b). The result each year is based on data collected in the preceding 12 months for 25% of the unclassified roads. The results have fluctuated over the four year as shown below. It is not possible to determine whether this fluctuation is a consequence of variation in condition between the 25% samples, variations in the rules and parameters use for the analysis, actual changes in condition or a combination of factors.

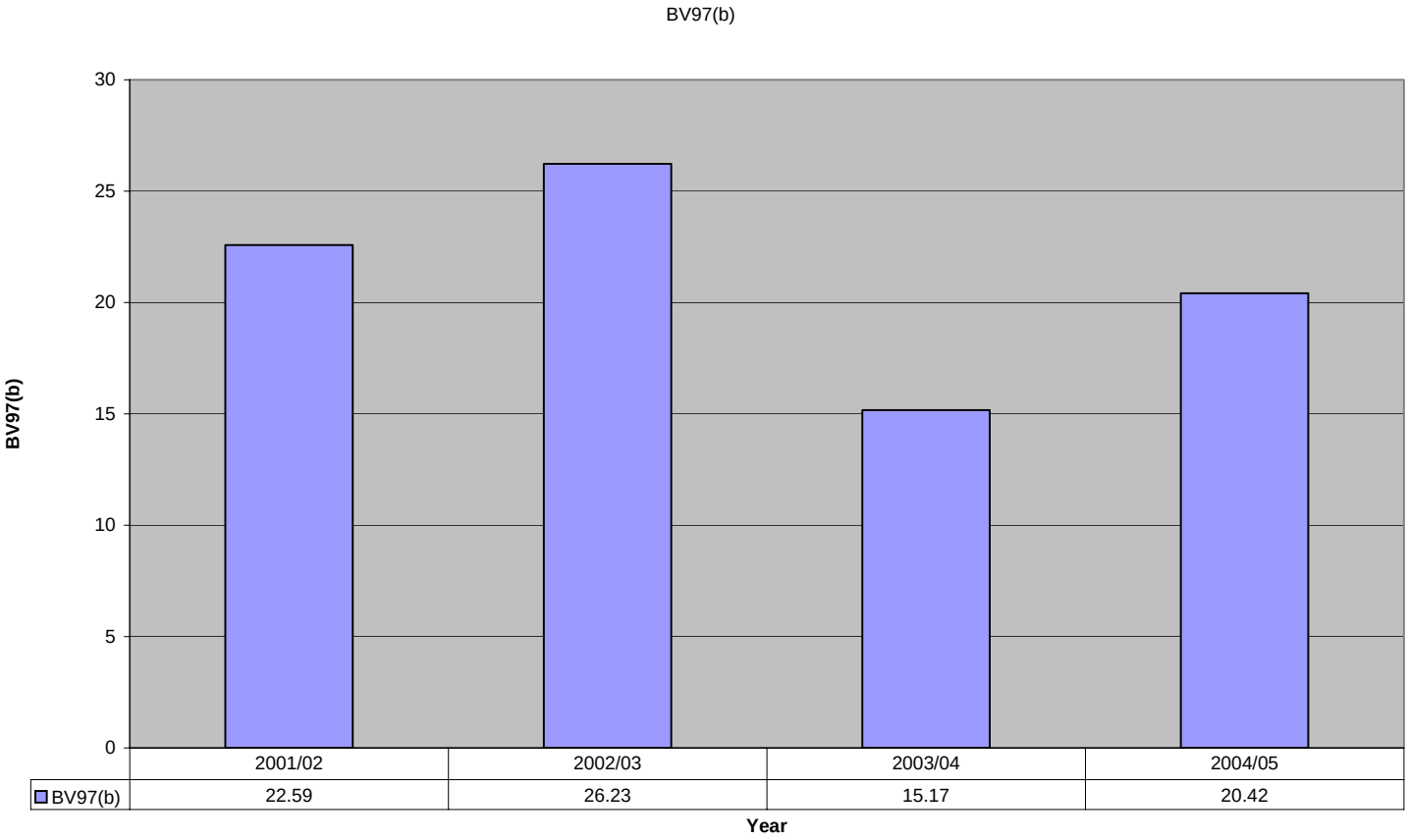


Figure 7.3 BVPI 97(b) Percentage of Non-principal Unclassified Roads with Significant Defects (Visual Inspection).

7.12 The weighted average for 2003/04 is 15%. The average result for the four years is 21.1%. Both figures are in the bottom quartile to median range. These results suggest that there has been no significant improvement in the network . The condition of unclassified roads is not as good as the classified roads and this difference reflects their relative priority of the networks hierarchy.

Mandatory Indicator AM2 : Footway Condition

7.13 BVPI 187 measures the condition of prestige, primary and secondary walking routes. Fifty percent of these footways are surveyed each year using UKPMS DVI surveys and three years of data have now been collected. The improvement in 2004-05 initially appears to be significant. However the West Yorkshire authorities believe that trends can be better assessed by taking a 100% sample over a two year period. This gives a small improvement from 22.5% to 21.85% which is in the upper to median quartile of results nationally.

7.14 Future works programmes will further improve this part of the footway network. However these footways represent a relatively small percentage of

the total footway network and eradicating the backlog of maintenance to all footways by 2010/11 will not be achieved without a considerable increase in funding.

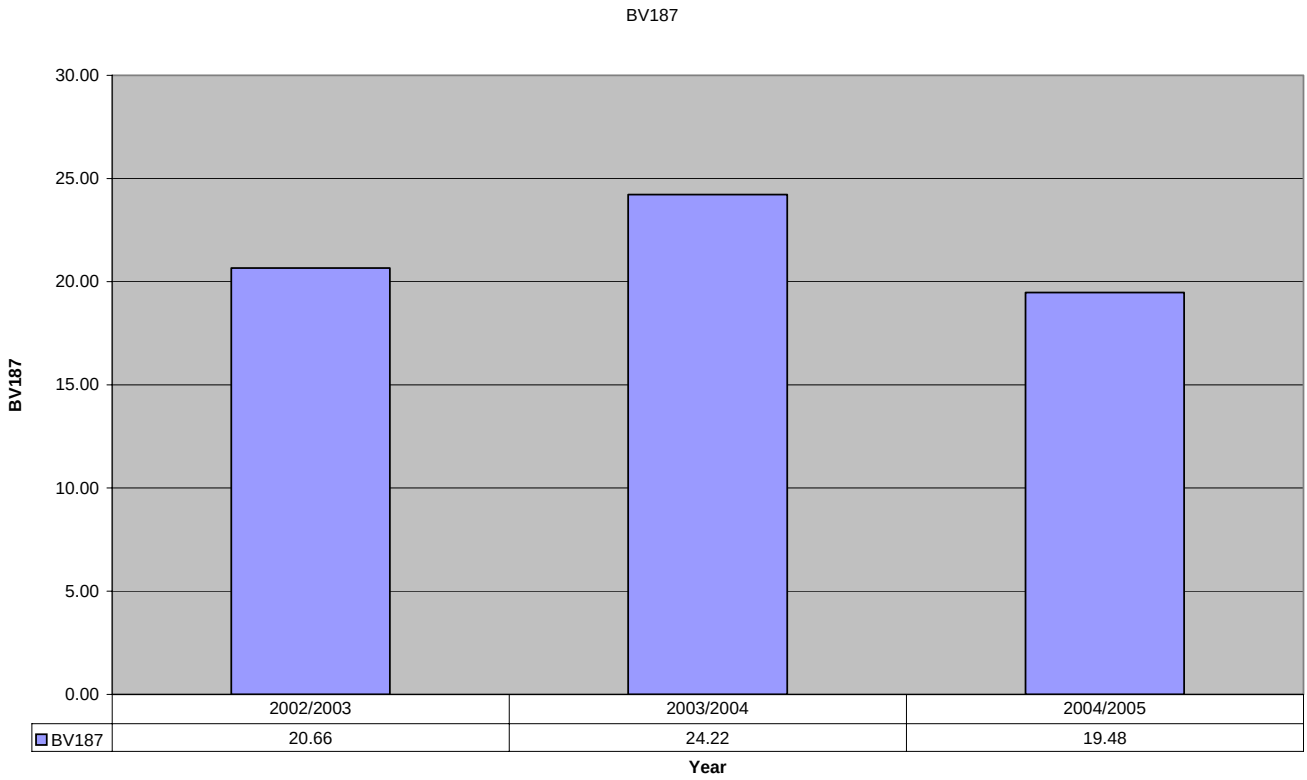


Figure 7.4 BVPI 187 Percentage of Prestige, Primary and Secondary Walking Routes with Significant Defects (Visual Inspection).

Local Key Indicator AM3 : Structures With Weight/Width Restrictions

7.15 The function of a bridge is to support the road, which in turn provides a transport facility for the user. If any part of the structure is closed or restricted for any reason, traffic will be disrupted and there will be resulting cost and inconvenience to the user. The overall functional requirement for bridge management, therefore, is to keep road user disruption to the minimum.

7.16 The percentage of structures with temporary weight or width restrictions is used to monitor performance in this area. The position at March 2004, the baseline for LTP2, is reported in Table 7.1 , together with data from 2005. Future changes will be reported against the 2004 baseline.

West Yorkshire: Weight And Width Restricted Structures												
District	TO MARCH 2004						TO MARCH 2005					
	Structures with temporary weight or width restriction. (Council Owned)			Structures with temporary weight or width restriction. (Privately Owned)			Structures with temporary weight or width restriction. (Council Owned)			Structures with temporary weight or width restriction. (Privately Owned)		
	Total No In Prog	No Rest.	%	Total No In Prog	No Rest.	%	Total No In Prog	No Rest.	%	Total No In Prog	No Rest.	%
Bradford	237	3	1.7	74	11	14.8	237	3	1.7	74	11	14.8
Calderdale	263	0	0	66	1	1.5	263	0	0	66	1	1.5
Kirklees	290	17	5.9	87	15	17.2	296	16	5.4	86	13	15.1
Leeds	229	5	2.2	112	1	0.9	229	6	2.6	113	3	2.7
Wakefield	85	0	0	60	6	10.0	85	0	0	60	5	8.3
TOTAL	1104	25	2.3	399	34	8.5	1110	25	2.3	399	33	8.3

Table 7.1 Percentage of Structures with Temporary Weight or Width Restrictions

7.17 Completion of the strengthening programme will allow all restrictions to be removed, except where permanent weight restrictions are acceptable. Hence, for Council owned structures, the target date is the end of the second 5 year LTP in March 2011, with the exception of sub-standard bridges under monitoring regimes where restrictions are not significant. These represent about 1.5% of structures in West Yorkshire. In addition, continued pressure on private bridge owners is required to ensure that their weak structures are strengthened within a reasonable timescale.

Local Key Indicator AM4 : Bus Shelters Meeting Modern Standards

7.18 Market research has indicated that peoples perception of public transport is influenced greatly by their wait for a service. West Yorkshire's bus stops rate poorly for weather protection and information provision. In order to remedy this situation indicator AM4 will monitor the replacement of shelters with those meeting modern standards – defined for this purpose as having full glazing, have a light or seat and meet DDA requirements.

7.19 Currently (2003/04) 31% of shelters meet this standard. Progress towards the LTP2 target of 95% will be reported in future Monitoring Reports.

APPENDICES

APPENDIX 1 LTP2 TARGET DEVELOPMENT

As part of the LTP2 process a workshop was held in January 2006 to finalise the development of some mandatory and local targets.

The following proformas summarise the output from the workshop and give details of the rationale behind the setting of targets in LTP2.

TARGET	**M2**: Increase in bus punctuality for all registered services
STATUS	Mandatory
INDICATOR	Bus punctuality
TREND DATA	2000/01 88.65 2001/02 88.53 2002/03 90.03 **2003/04 87.1** 2004/05 86.8
EVIDENCE & ISSUES	Challenging target dependent on introduction of: • Simplified ticketing, fares and routes • Additional fleet investment Fleet investment and Metro infrastructure investment will result in more level boarding thus speeding up boarding time.
WYLTP Target	Increase punctuality to 95% by 2010/11 for all registered services (measured at start of route and intermediate timing points) A year on year reduction in excess waiting time for services registered as Frequent (measured at start of route and intermediate timing points)
STM Results	Decrease in average bus travel time ranges from 1.75 to 5% depending on centre. This will assist in target achievement.
DfT Satisfactory level	N/A
Does WYLTP meet this	N/A
RISKS TO ACHIEVING TARGET	• Rate of delivery of bus priority schemes • Proactive use of the RTPI system by operators • Commitment of operators to improve performance • Commitment of operators to modernise bus fleets • Implementation of simplified ticketing
LINKS TO OTHER WYLTP TARGETS	M3 Bus satisfaction M8 Bus patronage
RECOMMENDATIONS	Challenging but positive improvements to efficiency in operation are evident

TARGET	**M3** Satisfaction with local bus services
STATUS	Mandatory
INDICATOR	BVPI 104
TREND DATA	2000/01 – 54% 2003/04 – Awaiting figure from government
EVIDENCE & ISSUES	Implementation of quality bus partnerships in 2009 to improve all aspects of bus travel and therefore satisfaction. This includes: • Simplify and flatten fares • No more above inflation fare increase • Newer vehicles • Less service changes • Marketing effort & common branding
WYLTP Target	59%
STM Results	N/A
DfT Satisfactory level	Maintain bus satisfaction levels to 2009/10 (if level in 2003/04 is greater than 50% or improve them by at least 6% over 2003/04 level by 2009/10 (if not)
Does WYLTP meet this	Yes
RISKS TO ACHIEVING TARGET	• Delay / problems implementing quality bus partnership • Over estimated effects of measures implemented.
LINKS TO OTHER WYLTP TARGETS	M2 Bus punctuality – the target is to improve bus punctuality which will improve bus satisfaction L1 Satisfaction with LTP funded facilities
RECOMMENDATIONS	Agree 59% target

TARGET	**M4** : Annualised Index of Cycle flows
STATUS	Mandatory
INDICATOR	12 hour weekday flow at a sample of sites, averaged over 3 years
TREND DATA	43.3, 42.1, 40.2, 39.6, **38.9**
EVIDENCE & ISSUES	Revised monitoring programme for LTP2 - less sites but more representative, includes some off road automatic count data.
WYLTP Target	+10% (42.8)
STM Results	n/a
DfT Satisfactory level	No change on 2004 figure
Does WYLTP meet this	Yes
RISKS TO ACHIEVING TARGET	• Weather! • Monitoring methodology not ideal, but cost effective. • Investment in cycling measures might be ineffective. • Recent trends do not show level of growth targeted.
LINKS TO OTHER WYLTP TARGETS	Numbers too small to have significant impact on other targets.
RECOMMENDATIONS	Target realistic and (possibly) achievable

TARGET	**M6 (i)** Change in peak period traffic flow to urban centres (0700-1000) - **Bradford**
STATUS	Mandatory
INDICATOR	ATC traffic flows
TREND DATA	Year Volume 1999 45,600 2001 46,800 **2003 45,500 Base year**
EVIDENCE & ISSUES	• The forecast impact of future increases in employment in Bradford District is to increase AM peak period traffic levels across the cordon by 6% or just fewer than 3000 vehicles. The forecast increase in employment between 2006-11 (12,400 jobs) is similar to that for Leeds (13,200) and is significantly higher than that which occurred between 1991-2001 (6,600); • Forecast increases in City Centre living in Bradford are for some 5000 people (up from less than 500 now) within 2-3 years. Potentially this could reduce car trips across the Cordon by 1600 cars (3.5%), however, currently only 40% of residents work in the City Centre. This would reduce the flow by around 600 (1.4%); • The impact of meeting the bus patronage target is likely to be minimal in Bradford. Evidence from Manchester Rd suggests that at best bus patronage in the AM peak could remain at current levels; evidence from the modal split surveys shows a sustained downward trend of -11% since 1998; • There is no rail target for Bradford, however, additional rolling stock on routes into Leeds would provide extra capacity for travel to Bradford. The modal split survey shows a 17% rise since 1998 although this has all occurred in the last year so may not be fully representative. The impact on the cordon however of future increases would be marginal. A 20% rise would represent just 400 cars or less than 1%; • Cycle flows across Bradford cordon are very low – just 112 (0730-0930) in 2005; • The impacts of implementing Liftshare

	have been estimated at reducing flows across the cordon by around 550 cars per day, or 0.6%; • Demand management does not have a high priority in Bradford. The Council has control of 6600 long stay City Centre spaces but only 4000 are occupied, (equivalent to 9% of the cordon flow). Unrealistic to assume any impact.
WYLTP Target	Provisional LTP target = limit increase to 3%
STM Results	Typical Am Peak **hour** shows increase of 1.6% in 2011 preferred strategy
DfT Satisfactory level	No change
Does WYLTP meet this	No.
RISKS TO ACHIEVING TARGET	• Reliability of the forecast employment changes and impacts; • Economic growth exceeds the forecasts; • Employment growth in the city centre rises faster than the District as a whole; • The growth in city centre living is less than anticipated; • The growth in city centre living is by people with jobs outside Bradford city centre; • Rail patronage and Liftshare have less impact than forecast; • The monitoring accuracy of the ATC cordon is +/- 2.5%. The target could be met in reality, but monitoring may show an increase.
LINKS TO OTHER WYLTP TARGETS	M8 Bus patronage L2 AM Peak cycling L3 Mode share L4 AM Peak rail patronage to Leeds
RECOMMENDATIONS	The growth in employment and its impact on the cordon is subject to a great deal of uncertainty. Given past trends this effect is likely to be over-estimated. The provisional LTP target is consequently reasonable assuming that the growth in City Centre living is achieved and that there is some impact from increased rail patronage and Liftshare.

TARGET	**M6 (ii)** Change in peak period traffic flow to urban centres (0700-1000) - **Huddersfield**
STATUS	Mandatory
INDICATOR	ATC traffic flows
TREND DATA	1999 – 31490 2001 – 31220 **2003 – 31110 - new baseline**
EVIDENCE & ISSUES	**Employment** – Using Yorkshire futures predictions an extra 5276 jobs created leading to an extra 960 cars across cordon. **City Centre Living** – 840 units predicted to 2013. Only small impact envisaged on flows across Huddersfield cordon given potential for commute to Leeds and the fact that other job creation areas outside cordon (A62 – 4500 jobs) also have impact. **Bus** – Uncertain factor - Mode split surveys show some peak growth in bus mode share on key corridors into the centre and increase by 1.5% in bus mode share since 2000. This may be a product of data collection rather than actual shift. **Rail** – Rail numbers low – potential for impact on car trips small. **Cycling** – Numbers at around 100 in morning peak – No significant influence envisaged. **Demand Management** – as yet no formal commitment to more severe parking charges and control.
WYLTP Target	Growth of around 3% to 2011
STM Results	Typical peak **hour** growth for Huddersfield is 4% as a result of preferred strategy in 2011
DfT Satisfactory level	No change
Does WYLTP meet this	No – the possibility of economic growth (job creation) is high for both Huddersfield and commuter destinations such as Leeds. The prospect of this abating is small given thrust of Regional Guidance. This target needs to be matched by better

	management between the modes to ensure traffic growth is not excessive. This may be limited in Huddersfield and relies heavily on increases in bus patronage. Modelling work by Metro does not foresee this time period as a growth area.
RISKS TO ACHIEVING TARGET	• Higher than anticipated job creation within or close to central cordon. • No increase in car parking tariffs or increase in cheap long stay car parking. • No impact of bus strategy measures into the core area. • Cheaper motoring costs. • Reduction in rail services.
LINKS TO OTHER WYLTP TARGETS	L8 Bus patronage L2 AM Peak cycling L3 Mode Share L4 AM Peak rail patronage to Leeds
RECOMMENDATIONS	It is recommended that the target for Huddersfield is set at 3% to take account of potential increases in job creation in Kirklees.

TARGET	**M6 (iii)** Change in peak period traffic flow to urban centres (0700-1000) - **Leeds**
STATUS	Mandatory
INDICATOR	ATC traffic flows on LTMP central cordons
TREND DATA	Trend data since 2000 shows: 2000 93,500 2002 97,000 2004 98,200 (+5%)
EVIDENCE & ISSUES	• The forecast impact of future increases in employment in Leeds District is to increase AM peak period traffic levels across the cordon by 3% or just fewer than 3000 vehicles. The forecast increase in employment between 2006-11 Leeds (13,200) is similar to that for Bradford (12,400 jobs) and is significantly lower than that which occurred between 1991-2001 (51,000); • Forecast increases in City Centre living in Leeds are significant with some 2,900 additional units under construction and a further 4,500 with planning permission. Potentially this could reduce car trips across the Cordon by 1000-2000 cars (1-2%); • The impact of meeting the bus patronage target is likely to be minimal in Leeds. Evidence from East Leeds suggests that at best bus patronage in the AM peak could remain at current levels; • The AM peak rail target is for an increase in 2000 passengers between 0730-0930. Allowing for a greater rise between 0700-1000, this could reduce traffic by 2%; • Cycle flows across Leeds cordon are greater than the other centres, however, even with the target increase of 20% this would represent about 0.1% of the cordon flow;

	• Commuter Parking :- ➢ predicted net loss of 28% of publicly available long stay parking spaces by 2011. ➢ Parking charges continue to increase at above the rate of inflation) • Current parking demand management in Leeds is high (Decrim. Powers etc), however, there are only 2050 long stay spaces under Council control.
WYLTP Target	+3%
STM Results	Typical Am Peak **hour** shows decrease of 2.1% in 2011 preferred strategy
DfT Satisfactory level	No change
Does WYLTP meet this	No
RISKS TO ACHIEVING TARGET	• Economic growth exceeds the forecasts • Employment growth in the city centre rises faster than the District as a whole • The growth in city centre living is less than anticipated • Rail patronage increases are not achieved • The monitoring accuracy of the ATC cordon is +/- 2.5%. Zero growth could be met in reality, but monitoring may show an increase.
LINKS TO OTHER WYLTP TARGETS	
RECOMMENDATIONS	Significant risks associated with a 0% growth target, therefore 3% increase should be adopted subject to revision in future APR's if trend data allows.

TARGET	**M6 (iv)** Change in peak period traffic flow to urban centres (0700-1000) - **Wakefield**
STATUS	Mandatory
INDICATOR	ATC traffic flows
TREND DATA	Trend data since 1999 shows: Year Volume 2000 26,344 2002 29,577 **2004 28,228**
EVIDENCE & ISSUES	• A very large increase was experienced between 2000 and 2002. This may in part have been related to a large retail site opening close to the cordon. However, this growth was experienced across several sites, suggesting that traffic growth may have been related to a general increase in economic activity across the region. • The forecast impact of future increases in employment in the Wakefield District is to increase the inbound period traffic levels across the cordon by 3% (850 cars). The forecast employment increase in Wakefield between 2006-11 (4,300) is lower than that which occurred between 1991-2001 (6,500). • Forecast increases in City Centre living in Wakefield are for some 1600 residents within the next five years. Depending on their chosen employment destination this has the potential to slightly reduce the flow of commuter car trips across the cordon by around 230 cars (0.5%). • Bus travel in the am peak has fluctuated around a flat trend into Wakefield city centre since 1998. Recent and planned bus priority measures have the potential to increase the share of this mode. Allowing for an assumed one per cent growth in AM peak bus patronage by the end of the period the modal share here is forecast to remain roughly constant throughout the term of the plan, falling slightly towards the end.

	• Rail travel into the city centre in the am peak has doubled between 1998 and 2004 and this strong trend is expected to continue in line with economic growth. New services, stopping at Kirkgate from Sheffield and frequent GNER services stopping at Westgate from Leeds, allow sufficient capacity to accommodate further rail patronage growth in excess of 10%. • Cycle flows across Wakefield cordon are in low numbers at 72 in 2004/5. This is thought to be an underestimate as there are other cycle routes through the cordon that are not being surveyed. Additional survey points have been created to increase the rigour of the survey; • A recent study has estimated that demand management through control of parking prices in Wakefield city centre has a weak potential to impact on this indicator. The amount of local authority controlled long stay parking in the core of the city is small.
WYLTP Target	Limit growth to 3%
STM Results	Typical Am Peak **hour** shows decrease of 2.9 % in 2011 preferred strategy
DfT Satisfactory level	No change
Does WYLTP meet this	No
RISKS TO ACHIEVING TARGET	• Economic growth and concomitant growth in travel demand may turn out to be greater than estimated. • Bus patronage may not grow by the required amount, particularly if bus priorities don't achieve forecast journey time savings. Insufficient car users attracted to use buses. • Necessary increases in cycle and walking don't happen, because facilities fail to attract existing car users. • Demand management measures, may not be strong enough to discourage private car use (HOV lanes and long stay car park charge increases).
LINKS TO OTHER WYLTP TARGETS	L8 Bus patronage L2 AM Peak cycling L3 Mode Share

	L4 AM Peak rail patronage to Leeds
RECOMMENDATIONS	The Provisional target of 5% may be too high an estimate for Wakefield. A number of factors will increase the demand for travel into the city centre (economic growth, planned key developments). Other factors will reduce the demand for travel (more city centre living, improvements that reduce the relative generalised cost of non-car modes, and active encouragement of modal shift). A target of 3% is estimated to be achievable.

TARGET	**M7** : Reduce the proportion of children travelling to a) primary and b) secondary schools by car
STATUS	Mandatory from 2006/07
INDICATOR	Mode share for journeys to school as supplied by DfES (PLASC data). *May only be compulsory for those schools with a travel plan.*
TREND DATA	Base year will be 2006/07
EVIDENCE & ISSUES	Delivery of PLASC data delayed, DfT advise against use of "hands up " survey
WYLTP Target	Not set - nb : 2003/04 "hands up" shows 36% by car overall
STM Results	N/A
DfT Satisfactory level	No change in car mode share.
Does WYLTP meet this	n/a
RISKS TO ACHIEVING TARGET	Decline in commitment to school travel plans Halt to "Yellow Bus " project Growth in parental choice increases number of car based trips
LINKS TO OTHER WYLTP TARGETS	M5 Congestion M6 Peak Period Traffic flows L3 Peak period mode share (although impact on all may be minimal given nature and timing)
RECOMMENDATIONS	Continue with "hands up" survey data as a background indicator with monitoring group becoming involved in planning & conduct of survey to ensure statistical rigour by 2006/07 in case PLASC does not materialise.

<table>
<tr><td>TARGET</td><td>M8 : Public transport patronage (BVPI 102).</td></tr>
<tr><td></td><td></td></tr>
<tr><td>STATUS</td><td>Mandatory</td></tr>
<tr><td></td><td></td></tr>
<tr><td>INDICATOR</td><td>Bus Patronage – BVPI 102 on West Yorkshire basis.</td></tr>
<tr><td></td><td></td></tr>
<tr><td>TREND DATA</td><td><table>
<tr><td>2000/01</td><td>201.6</td></tr>
<tr><td>2001/02</td><td>202.0</td></tr>
<tr><td>2002/03</td><td>203.5</td></tr>
<tr><td>2003/04 (baseline figure)</td><td>199.1</td></tr>
<tr><td>2004/05</td><td>195.7</td></tr>
</table></td></tr>
<tr><td></td><td></td></tr>
<tr><td>EVIDENCE & ISSUES</td><td>• Bus model predicts 3.4% increase by 2011/12
• Additional 0.7% increase generated by new park & ride sites.
• Additional 0.7% increase through demand management measures e.g. parking charges, travel plans etc
• Free elderly travel April 2006 after 9:30am (Model predicts 8.5% increase in total patronage down to this alone)
• Quality bus partnerships to start in 2009 including:
  • Simplify and flatten fares
  • No more above inflation fare increases
  • Newer vehicles
  • Less service changes
  • Marketing effort & common branding
• Social factors e.g. increased car ownership causes downward pressure on bus patronage
• Predicted increase in jobs in region causes upwards pressure on bus patronage</td></tr>
<tr><td></td><td></td></tr>
<tr><td>WYLTP Target</td><td>5% increase in bus patronage by 2010/11</td></tr>
<tr><td></td><td></td></tr>
<tr><td>STM Results</td><td>STM shows that the number of additional bus trips being made in a typical AM peak and inter peak period will increase as a result of the preferred strategy in 2011. IT SHOULD BE NOTED THAT</td></tr>
</table>

	STM ALLOCATES A GREATER PROPORTION OF TRIPS TO BUS THAN IS REALISTIC.
DfT Satisfactory level	-
Does WYLTP meet this	-
RISKS TO ACHIEVING TARGET	• Delay / problems implementing quality bus partnerships and contracts. • Over estimated effects of measures implemented. • Delay / problems operating park & ride sites. • Lack of demand management measures. • Other economic factors which favour car use.
LINKS TO OTHER WYLTP TARGETS	This target is **all day** bus patronage. The patronage increase is due mainly to free elderly travel (after 9:30am), **so no link to morning peak mode share target from this increase.** M6, L3 However the implementation of quality bus partnerships from 2009 and other continuing improvement measures such as real time & Yorkshire Bus Initiative will have a positive effect on the morning peak mode share target and individual traffic flow targets for urban centres. M2 Bus punctuality – the target is to improve bus punctuality which will improve bus patronage M3 Satisfaction with LTP funded facilities
RECOMMENDATIONS	If a 5% target is to be agreed some certainty surrounding the implementation of park and ride and the effect of demand management in the individual districts should be assured. Without some certainty in these areas a 3.6% increase is considered challenging.

TARGET	**M13 :** Area wide traffic flows
STATUS	Mandatory
INDICATOR	Index of 16 hour weekday traffic weighted by road length
TREND DATA	Trend data since 2000 (using 2003 road lengths) shows: Year Index (2000=100) 2000 100.0 2001 100.9 2002 99.9 2003 102.8 **2004 102.6 Base year** 2011 107.6 extrapolated trend
EVIDENCE & ISSUES	Growth in WY employment 1991-2001 was 77,000 of which 51,000 occurred in Leeds. Forecast increases 2006-11 (36,000) although occurring at the much the same rate are more widely spread, with only 13,000 forecast for Leeds. The extrapolated trend in all day traffic to 2011 shows a 4.9% increase from 2004 (based on the period 2000-2004) and a 4% increase based on the longer period 1994-2004; It is estimated that current bus use represents around 7% of total person-kms travelled in West Yorkshire by road. An increase in bus patronage of 5% would at most therefore reduce car traffic levels by 0.35% assuming a full modal shift; Current rail trips represent around 10% of public transport patronage. The effect of growth here on all day traffic would therefore be minimal. Growth in cycling levels will have even less impact.
WYLTP Target	Not more than 5% growth between 2004 and 2011
STM Results	2.5% to 3.5% growth in AM peak car trips; 3-4%

	growth in Inter peak car trips by 2011
DfT Satisfactory level	None
Does WYLTP meet this	N/A
RISKS TO ACHIEVING TARGET	Future economic growth exceeds the recent trends
LINKS TO OTHER WYLTP TARGETS	M7 Public transport patronage M8 Cycle flows
RECOMMENDATIONS	The Provisional LTP target of not more than 5% growth represents a realistic assessment of the likely outcome.

TARGET	**L1** : Increase satisfaction with LTP funded public transport facilities
STATUS	Local
INDICATOR	Satisfaction with local bus journeys
TREND DATA	Baseline figure for LTP2 purposes is 87% satisfaction (2004/5)
EVIDENCE & ISSUES	• Historic monitoring data of satisfaction levels for 7 schemes implemented in 2004/5
WYLTP Target	90% satisfaction by 2011
STM Results	N/A
DfT Satisfactory level	
Does WYLTP meet this	Yes, with ongoing programme of improvements to facilities planned
RISKS TO ACHIEVING TARGET	• Local problems with bus and rail operations may affect perception of facilities • Delay in delivery of schemes • Unforeseen disruption in implementing schemes may affect perception of facilities
LINKS TO OTHER WYLTP TARGETS	Bus patronage AM peak rail patronage into Leeds
RECOMMENDATIONS	Target aims high, but overall increase is modest. Recommend acceptance.

TARGET	**L2** : AM peak cycle trips to urban centres - **Halifax**
STATUS	Local
INDICATOR	Inbound Cordon flows (0730-0930) - 3 counts per site
TREND DATA	2000 – 52 cyclists 2002 – 51 cyclists 2004 – 54 cyclists 2005 - 53 cyclists
EVIDENCE & ISSUES	
WYLTP Target	20% increase
STM Results	N/A
DfT Satisfactory level	None set specifically for urban centres
Does WYLTP meet this	Yes
RISKS TO ACHIEVING TARGET	• Weather! • Monitoring methodology not ideal, but cost effective. • Investment in cycling measures might be ineffective. • Recent trends do not show level of growth targeted.
LINKS TO OTHER WYLTP TARGETS	Numbers too small to have significant impact on other targets with possible exception of local accessibility targets under development.
RECOMMENDATIONS	Whilst recent trends do not show levels of growth predicted discussions with cycling task group and authorities involved reveal that target can be achieved particularly as numbers are very small. Accept on the basis that Calderdale have overall responsibility.

TARGET	**L2** : AM peak cycle trips to urban centres - **Leeds**
STATUS	Local
INDICATOR	Inbound Cordon flows (0730-0930) - 3 counts per site
TREND DATA	2000 = 441 2002 = 430 **2004 = 571 Baseline** 2005 = 628
EVIDENCE & ISSUES	
WYLTP Target	685 (+20%)
STM Results	N/A
DfT Satisfactory level	None set for urban centres
Does WYLTP meet this	Yes
RISKS TO ACHIEVING TARGET	• Weather! • Monitoring methodology not ideal, but cost effective. Some noise in data • Investment in cycling measures might be ineffective. • Recent trends do not show level of growth targeted. • "noise" in data - 2005 survey shows 628 cycles ! • Limited take up of Workplace Travel planning
LINKS TO OTHER WYLTP TARGETS	Numbers too small to have significant impact on other targets.
RECOMMENDATIONS	Whilst recent trends do not show levels of growth predicted discussions with cycling task group and authorities involved reveal that target can be achieved particularly as numbers are very small. Accept on the basis that Leeds have overall responsibility.

TARGET	**L2 :** AM peak cycle trips to urban centres – **Wakefield**
STATUS	Local
INDICATOR	Inbound Cordon flows (0730-1030) - counts undertaken on three separate days per site (2004/05 onwards)
TREND DATA	Trend line data since 1999 shows: 2000 155 cyclists 2002 141 cyclists 2003 132 cyclists **2004 72 cyclists** 2005 105 cyclists
EVIDENCE & ISSUES	• Cycle use has declined in recent years for many reasons. Increases in the volume of motorised vehicles have discouraged cycling. New/more complicated junctions are perceived to be more dangerous (e.g roundabouts and signalised junctions). Much new employment has been located away from Wakefield City centre, in less accessible locations near to Motorway junctions. • Up until the last two years there had been little investment in cycle infrastructure in the Wakefield City area. Facilities have been provided as part of the safe routes to schools initiative, away from the City centre. • Recent investment in a radial cycle route, will be replicated on other radials in the LTP2 period, coordinated with major developments in the City centre. The development of the emerald ring concept on the inner ring road, to improve penetration for both cyclists and pedestrians across the road into the centre is expected to encourage more cycling and walking to the City centre.
WYLTP Target	+ 20% from 2004 base
STM Results	Unlikely be of use.
DfT Satisfactory level	N/A
Does WYLTP meet this	N/A

RISKS TO ACHIEVING TARGET	• If the proposed new cycle facilities are not delivered, it will be difficult to attract car users to cycling. • A comprehensive network of radial routes is required, and where third parties are involved (such as Network Rail or other land owners), negotiations may be protracted and delay implementation. • Improvements within the City centre are dependant on key development sites being progressed quickly. Major changes to the highway network and the emerald ring concept, are heavily reliant on these developments. If the developments are delayed, these highway changes will also be delayed. • If comprehensive demand management measures are not implemented, there will be no disincentive to car use, so alternative modes (such as cycling) won't be considered by car users.
LINKS TO OTHER WYLTP TARGETS	Numbers too small to have significant impact on other targets.
RECOMMENDATIONS	Improved monitoring techniques will reflect changes related to off road routes more accurately. Given the low base of cycling measured in 2004, a 20% increase equates to a very small absolute increase of just 14 cyclists. Given the scale of investment planned for radial routes into Wakefield City centre in LTP2, and associated promotion planned, this growth should easily be achieved. Recent experience with the Spen Valley greenway and other Sustrans schemes in Yorkshire and Humber region suggest that considerably higher levels of growth have been experienced on isolated routes.

TARGET	**L3 :** AM peak period modal split to urban centres - **Bradford**
STATUS	Local
INDICATOR	Inbound Cordon flows (0730-0930) - 3 counts per site
TREND DATA	Trend data since 1998 (0730-0930) shows: Car mode share % 1998 72.6 2000 73.7 2002 74.0 2004 73.6 **2005 73.6 Base year**
EVIDENCE & ISSUES	• The trend from 1998 up to 2011 is for 75.1% car mode share, from 2000 the trend is flat – 73.3%; • The forecast impacts of increased employment assumes existing modal share across the cordon; • The impacts of City Centre living are likely to be marginal in terms of modal share. • The impact of meeting the bus patronage target is likely to be minimal in Bradford. Evidence from Manchester Rd suggests that at best bus patronage in the AM peak could remain at current levels; evidence from the modal split surveys shows a sustained downward trend of -11% since 1998. Currently bus represents 16.2% of mode share; • The 2005 modal split survey shows a 17% rise in rail patronage since 1998 although this has all occurred in the last year so may not be fully representative. The impact on the cordon however of future increases would be marginal. Currently rail represents 5.5% of mode share; • Cycle flows across Bradford cordon are very low – just 112 (0730-0930) in 2005 – with a sustained downward trend;

	• The trend in walking levels has been slightly upward since 1998 with a trend of +6% over this period, although the 2005 survey was well down on the 2004 figure. Currently walking represents just 4% of mode share; • The impacts of implementing Liftshare have been estimated at reducing traffic flows across the cordon by around 550 cars per day (0700-1000). This would have no impact on car mode share, however, Leeds data indicates that around 20% of users switch from non-car modes. The numbers affected here would nevertheless be very small – around 0.3% of mode share.
WYLTP Target	No change in car mode share
STM Results	Typical Am Peak hour shows mode share for car reducing by 5%, mostly as a result of a transfer to rail and bus.
DfT Satisfactory level	If there is an increase in peak traffic flows car mode share should show a 'significant' reduction
Does WYLTP meet this	No.
RISKS TO ACHIEVING TARGET	• Continuation of the decline in bus patronage not compensated for by growth in other non-car modes; • Mode share of new employment is more car based than existing situation; • The recent trend in rail patronage is not sustained in future years.
LINKS TO OTHER WYLTP TARGETS	M6 AM peak period traffic flows to urban centres M7 Bus patronage L5 AM peak period (0730-0930) rail patronage into Leeds
RECOMMENDATIONS	Given the trend since 2000 a 'no change' target would be feasible

TARGET	**L3 :** AM peak period modal split to urban centres - **Halifax**			
STATUS	Local			
INDICATOR	Inbound Cordon flows (0730-0930) - 3 counts per site			
TREND DATA	2000	2002	**2004**	2005
Total traffic - vehicles	17365	17271	**17973**	18064
Total persons	25067	24576	**24425**	25795
%age by mode - pedestrians	4.3	3.6	**4.5**	4.6
%age by mode - cycles	0.2	0.1	**0.2**	0.2
%age by mode – m/cycles	0.3	0.3	**0.5**	0.4
%age by mode - car	75.8	75.2	**75.9**	77.2
%age by mode - bus	19.3	20.7	**18.9**	17.5
%age of cars with one occupant	76.9	77.6	**79.6**	77.0
			Base year	
EVIDENCE & ISSUES	• **Car** - surveys in 2005 indicate an increase on vehicle numbers and people crossing the cordon in the base year. However, the average car occupancy increased from 1.24% in the base year to 1.29% and the % of cars with a single occupant fell by 2.6% • **Employment** – Yorkshire Futures prediction is an additional 1300 jobs created in the period 2006 – 11 which may increase the number of cars crossing the cordon in the AM peak • **Town Centre Living** – 208 change of use and conversion to dwelling applications still to be completed inside the cordon and 163 new build houses (as at 30 Sept 2005) 90% are flats with 2/3 bedrooms which may appeal to professional people who normally commute into Halifax by car. • **Bus** – 2005 modal split survey information indicates a decline in the annual bus mode share of 6.5% overall since year 2000 and almost 2.0% since 2004 base year, on the key corridors into the centre during the 0730 – 0930 AM peak • **Rail** – rail patronage into Halifax is 4% of the modal share, just over 1000 people on eight trains in the 0730 – 0930 AM peak. (consider this to be high through observational			

	evidence). Eastbound trains carry high number of commuters travelling to Bradford and Leeds • **Cycling** – although only 50 cyclists were recorded in the 7:30 – 9:30 AM peak on the designated routes for modal share data collection as monitored in 2004 base year, that is 2% of the mode split, workplace travel plans will increase numbers though it is not considered it would significantly affect car and rail commuters • **Demand Management** – the extension of the existing Pay & Display zone to cover a large part of the area inside the Halifax town centre cordon and decriminalised parking enforcement may change the attitude of the people who make the journey to work in Halifax town centre by car in the AM peak
WYLTP Target	No increase in the car modal share of total number of people crossing the Halifax cordon
STM Results	Typical AM peak hour shows mode share for car reducing by 6%, mostly as a result of a transfer to bus and rail
DfT Satisfactory level	"Significant" reduction
Does WYLTP meet this	No
RISKS TO ACHIEVING TARGET	• economic growth which exceeds the forecast • increased number of jobs in the town centre • minimal impact of bus strategy measures, and • a growth in car commuting levels skirting the town centre core area en-route to other centres in West Yorkshire and neighbouring authorities not affected by parking management •
LINKS TO OTHER WYLTP TARGETS	M6 AM peak period traffic flows to urban centres M7 Bus patronage L3 Am peak period (0730-0930) cycle flows to urban centres
RECOMMENDATIONS	The AM peak period modal split show slight changes, both up and down, over the 5 years we have been doing the surveys. %age of cars with

	one occupant and the average car occupancy is now virtually the same as in 2000, although people and traffic have increased. The only evidence of modal shift is from bus to car, unfortunately, but even that is a very small movement and could easily go the other way next year. Need to be wary of creating a target from what is an inconclusive trend.

TARGET	**L3 :** AM peak period modal split to urban centres - **Huddersfield**
STATUS	Local
INDICATOR	Inbound Cordon flows (0730-0930) - 3 counts per site
TREND DATA	Trend data since 1998 (0730-0930) shows: Car mode share % 1998 69 2000 67 2002 68 2004 66 **2005 64 Base year**
EVIDENCE & ISSUES	• The trend from 1998 up to 2011 is for 57.9% car mode share, from 2000 the trend is also down at 58%; • The forecast impacts of increased employment assumes existing modal share across the cordon; • The impacts of City Centre living are likely to be marginal in terms of modal share. • The impact of meeting the bus patronage target is likely to be minimal in Huddersfield. There is little hard evidence that bus patronage in the am peak has increased although analysis of mode split counts reveals that there has been some upward movement. However, data collected in the early years is much less statistically robust than recent three day counts. As such this not a strong base on which to make predictions. Evidence from other sources such as Manchester Rd. in Bradford suggests that at best bus patronage in the AM peak could remain at current levels; • It is important to note that even a small

	shift in mode share from car to bus would in actuality mean a large and unrealistic increase in peak period bus patronage. • The modal split surveys show a 20% rise in rail patronage since 1998. The impact on the cordon however of future increases would be marginal. Currently rail represents 6% of mode share; • Cycle flows across the Huddersfield cordon are very low – just 109 (0730-0930) in 2005 – with a variable trend since 1998; • The trend in walking levels has been slightly upward since 1998 with a trend of 41% over this period. Currently walking represents just 7% of mode share.
WYLTP Target	No change in car mode share
STM Results	Typical Am Peak hour shows mode share for car reducing by 5%, mostly as a result of a transfer to rail and bus.
DfT Satisfactory level	If there is an increase in peak traffic flows car mode share should show a 'significant' reduction
Does WYLTP meet this	No.
RISKS TO ACHIEVING TARGET	• Continuation of the decline in bus patronage not compensated for by growth in other non-car modes; • Mode share of new employment is more car based than existing situation; • The recent trend in rail patronage is not sustained in future years.
LINKS TO OTHER WYLTP TARGETS	M6 AM peak period traffic flows to urban centres M7 Bus patronage L5 AM peak period (0730-0930) rail patronage into Leeds
RECOMMENDATIONS	Given that it is unlikely that peak hour bus patronage could grow significantly in five years a 'no change' target would still be challenging.

TARGET	**L3 :** AM peak period modal split to urban centres - **Leeds**
STATUS	Local
INDICATOR	Inbound Cordon flows (0730-0930) - 3 counts per site
TREND DATA	Car Mode Share % 1998 64.0 2000 61.2 2002 60.9 **2004 57.7** 2005 57.3
EVIDENCE & ISSUES	• Trend data from 1998 to 2011 shows continuing slight fall • Forecasts of increased city centre employment assumes existing modal share • Impacts of city centre living may reduce peak period car demand – see Proforma for peak period traffic growth • Planned increase in rail patronage of 20% • Bus patronage increase :- - 0.4% increase above trends due to P&R and associated demand management measures. • Commuter Parking :- - predicted net loss of 28% of publicly available long stay parking spaces by 2011. - Parking charges continue to increase at above the rate of inflation) • +20% cycling target (L2) will have no significant impact (600 trips out of 121,000)
WYLTP Target	54% car mode share (55% corporate target by 2008)
STM Results	Typical AM Peak hour shows mode share for car reducing by 4%, mostly as a result of a transfer to bus

DfT Satisfactory level	If there is an increase in peak traffic flows car mode share should show a 'significant' reduction.
Does WYLTP meet this	Yes – for Leeds
RISKS TO ACHIEVING TARGET	Increase PNR parking as a result of development over and above that predicted P&R site is not completed Increases in rail capacity don't occur Peak period bus patronage trends in Leeds reverse
LINKS TO OTHER WYLTP TARGETS	M6 AM peak period traffic flows to urban centres M8 Bus patronage L4 AM peak period (0730-0930) rail patronage into Leeds
RECOMMENDATIONS	Given trends and assumptions linked to other targets a 54% car mode target is ambitious but achievable.

TARGET	**L3 :** AM peak period modal split to urban centres - **Wakefield**
STATUS	Local
INDICATOR	Inbound Cordon flows (0730-0930) - 3 counts per site
TREND DATA	Trend data since 1998 (0730-0930) shows: 1998 79.6 2000 71.8 2002 75.7 2004 73.0 **2005 76.0* Base year** • (07:30-10:30) 2011 77.0 (straight line forecast)
EVIDENCE & ISSUES	• Trend data shows a large amount of variability over the plan period. This makes the trend forecast for 2011 unreliable. Sampling frequency improvements started in 2005 have improved the reliability of the surveys. • Economic growth is expected for the city centre during the LTP2 plan period. Three large city centre developments are scheduled to complete, attracting trips. • The forecast impact of future increases in employment in the Wakefield District is to increase the inbound period traffic levels across the cordon by 3% (850 cars). The forecast employment increase in Wakefield between 2006-11 (4,300) is lower than that which occurred between 1991-2001 (6,500). • Bus travel in the am peak has fluctuated around a flat trend into Wakefield city centre since 1998. Recent and planned bus priority measures have the potential to increase the share of this mode. Allowing for an assumed one per cent growth in AM peak bus patronage by the end of the period the modal share here is forecast to remain roughly constant throughout the term of the plan, falling slightly towards the end. • Rail travel into the city centre in the am peak has doubled between 1998 and 2004 and this strong trend is expected to continue in line with

	economic growth. New services, stopping at Kirkgate from Sheffield and frequent GNER services stopping at Westgate from Leeds, allow sufficient capacity to accommodate further rail patronage growth in excess of 10%. • Cycle flows across Wakefield cordon are in low numbers at 72 in 2004/5. This is thought to be an underestimate as there are other cycle routes through the cordon that are not being surveyed. Additional survey points have been created to increase the rigour of the survey; • There has been a strong growth in the numbers walking into the city centre in the peak period but numbers are still relatively small in comparison to car modal share (walking share was 4% in 2005). • Cycle flows across the cordon are very low. Evidence suggests some trips may be escaping measurement. Additional survey points are being created to include these trips in counts and make the survey more rigorous. • A recent study has estimated that demand management through control of parking prices would have a weak potential to impact on this indicator, due to the relatively small amount of local authority controlled parking in the core of the city.
WYLTP Target	No change in car mode share.
STM Results	Typical AM Peak hour shows mode share for car reducing by 4%, mostly as a result of a transfer to bus.
DfT Satisfactory level	If there is an increase in peak traffic flows car mode share should show a 'significant' reduction.
Does WYLTP meet this	No. For Wakefield car mode share is estimated to remain at least at the same proportion. Given the risks involved here it may even increase by as much as one per cent over the plan period. The non-car modes represent much smaller magnitudes relative to that of the car. Given some anticipated growth in car trips (see indicator M6) larger increases in levels of non-car mode trips are necessary just for the car mode share to remain the same over time.
RISKS TO ACHIEVING	• Economic growth and concomitant growth in

TARGET	travel demand may turn out to be greater than anticipated. • Bus operators outside of the control of the authority. Any bus priority improvements may not be complemented by a high standard of bus services from operators. • The degree of success in realising modal shift after improvements are made may be less than anticipated, if the preference for non-car modes remains unchanged among the general population.
LINKS TO OTHER WYLTP TARGETS	M6 AM peak period traffic flows to urban centres. For Wakefield this is estimated to grow by 2.5%. M7 Bus patronage L5 AM peak period (0730-0930) rail patronage into Leeds L2 Am peak period (0730-0930) cycle flows to urban centres
RECOMMENDATIONS	The WYLTP target of no change in car mode share is an ambitious yet realistic target for Wakefield. Levels of non-car travel to the city centre in the AM peak will have to increase but as a proportion of all travel they are expected to remain constant. This is due to an expected growth in the level of car traffic to the city centre.

TARGET	**L4** ; AM peak period (0730-0930) rail patronage into Leeds
STATUS	Local
INDICATOR	Public transport patronage
TREND DATA	1999 10693 2000 * 2001 * 2002 10147 2003 9585 **2004 10209** 2005 11863 (* Figures for 2000 and 2001 unrealistic because of the number of bus substitutions and service suspensions associated with the Leeds 1st Project and other problems associated with the Hatfield accident, strikes and staff shortages)
EVIDENCE & ISSUES	• Additional jobs forecast in Leeds with trends suggesting 9,000 by 2008 • Demand management such as 'early bird' fares to use spare capacity on early trains • Bid for additional rolling stock to allow for expansion on peak journeys
WYLTP Target	An increase in peak arrivals of 20% by 2010/11 The target relates to local trains operated as part of the Northern franchise on behalf of Metro
STM Results	Increase in mode share of 1% in 2011 preferred strategy. This equates to about 9.1% increase in rail patronage**. IT SHOULD BE NOTED THAT STM HAS CONSISTENTLY UNDERESTIMATED RAIL TRIPS.**
DfT Satisfactory level	n/a
Does WYLTP meet this	n/a
RISKS TO ACHIEVING TARGET	• Downturn in the economy • Extra rolling stock bid fails
LINKS TO OTHER WYLTP	M6 AM peak period traffic flows to urban centres

TARGETS	M8 Bus patronage L3 AM peak period modal split to urban centres
RECOMMENDATIONS	Trend shows fast growth so target should be achievable

<table>
<tr><td>TARGET</td><td>L5 : Quality Bus Corridor Patronage</td></tr>
<tr><td></td><td></td></tr>
<tr><td>STATUS</td><td>Local</td></tr>
<tr><td></td><td></td></tr>
<tr><td>INDICATOR</td><td>Public transport patronage</td></tr>
<tr><td></td><td></td></tr>
<tr><td>TREND DATA</td><td>
<table>
<tr><th>Year</th><th>QBC trend</th><th>W Yorks trend</th></tr>
<tr><td>2000/1</td><td>+3%</td><td>+1.1%</td></tr>
<tr><td>2001/2</td><td>+4%</td><td>+0.2%</td></tr>
<tr><td>2002/3</td><td>+3%</td><td>+0.74%</td></tr>
<tr><td>2003/4</td><td>+3%</td><td>-2.16%</td></tr>
<tr><td>2004/5</td><td>+2%</td><td>-1.71%</td></tr>
</table>
</td></tr>
<tr><td></td><td></td></tr>
<tr><td>EVIDENCE & ISSUES</td><td>Evidence from the main schemes in West Yorkshire show consistent increases over the West Yorkshire baseline</td></tr>
<tr><td></td><td></td></tr>
<tr><td>WYLTP Target</td><td>Increase in bus patronage above West Yorkshire baseline on QBC routes</td></tr>
<tr><td></td><td></td></tr>
<tr><td>STM Results</td><td>N/A</td></tr>
<tr><td></td><td></td></tr>
<tr><td>DfT Satisfactory level</td><td>N/A</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Does WYLTP meet this</td><td>N/A</td></tr>
<tr><td></td><td></td></tr>
<tr><td>RISKS TO ACHIEVING TARGET</td><td>• Commitment of bus operators to improve performance
• Maintenance of fleet and infrastructure standards on QBCs</td></tr>
<tr><td></td><td></td></tr>
<tr><td>LINKS TO OTHER WYLTP TARGETS</td><td>M5 Journey time per person mile
M8 Bus patronage
M3 Bus satisfaction</td></tr>
<tr><td></td><td></td></tr>
<tr><td>RECOMMENDATIONS</td><td>Accept target of “increase in QBC patronage above WYorks increase”</td></tr>
</table>

TARGET	**L10** : Bus shelters meeting modern standards
STATUS	Local
INDICATOR	Satisfaction with local bus services
TREND DATA	Baseline data: 2003/04 - 31% of shelters meeting modern standards 2004/05 – 40% of shelters meeting modern standards
EVIDENCE & ISSUES	**Installation programme** Programme of installation has now accelerated with the establishment of a supplier with local base.
WYLTP Target	95% of bus shelters to meet modern standards by 2010/11 Bus shelters meeting modern standards are • Fully glazed • Have a light and/or seat • Are wheelchair accessible
STM Results	N/A
DfT Satisfactory level	N/A
Does WYLTP meet this	N/A
RISKS TO ACHIEVING TARGET	Lack of capital and human resources
LINKS TO OTHER WYLTP TARGETS	M8 Bus patronage M3 Bus satisfaction L1 Satisfaction with LTP funded PT facilities
RECOMMENDATIONS	Challenging but realistic.

APPENDIX 2 WEST YORKSHIRE LTP , 2006 – 2011 TARGETS

The following table shows the targets contained within the second West Yorkshire LTP for DfT Mandatory and Local Key Indicators. Progress against these targets will be reported annually using the pro-forma in Appendix 3

Key Outcome Indicators		Local Targets to 2010/11	Relevant Shared Priority
Mandatory M1	Local accessibility target	Ensure that 89.5% of households without access to a car are within 30 minutes of a hospital by public transport.	Delivering Accessibility
Mandatory M2	Bus punctuality	Increase bus punctuality to 95% by 2010/11 for all registered services. A year on year reduction in Excess Waiting Time for Frequent services	Delivering Accessibility; Tackling Congestion
Mandatory M3	Satisfaction with local bus services (BVPI 104)	Increase bus satisfaction to 59% by 2009/10	Delivering Accessibility; Tackling Congestion;
Mandatory M4	Annualised index of cycling trips	A 10% increase in overall cycling levels by 2010/11	Delivering Accessibility
Mandatory M5	Average journey time per person mile on key routes	Process of target setting still ongoing – awaiting DfT data and guidance - to be finalised by July 2006.	Tackling Congestion
Mandatory M6	Change in peak period traffic flows to urban centres	Traffic growth in urban centres in the morning peak period (0700-1000) from 2003/04 to 2010/11 to be restricted to : Bradford 3% Halifax 3% Huddersfield 3% Leeds 3% and Wakefield 3%	Tackling Congestion; Better Air Quality
Mandatory M7	Mode share of journeys to school	Setting of target on hold until DfES data available in 2007.	Tackling Congestion
Mandatory M8	Public transport patronage (BVPI 102)	A 5% increase in bus patronage by 2010/11.	Tackling Congestion
Mandatory M9	Total KSI casualties (BVPI 99)	A 40% reduction in the number of people KSI from the 1994/98 average by 2010 (National Target), stretched to a 30% reduction from the 2002-2004 average by 2010.	Safer Roads
Mandatory M10	Child KSI casualties (BVPI 99)	A 50% reduction in the number of children KSI from the 1994/98 average to 2010 (National Target), stretched to a 40% reduction from 2002-2004 by 2010 (related to PSA).	Safer Roads
Mandatory M11	Total slight casualties (BVPI 99)	A 15% reduction in the number of people slightly injured from the 2002-2004 average by 2010.	Safer Roads
Mandatory M12	NO_2 annual average concentration in designated Air Quality Management Areas (AQMA's)	A 10% reduction NO_2 in the Leeds AQMA's. Targets will be set for other AQMA's as they are declared during LTP2	Better Air Quality

Key Outcome Indicators		Local Targets to 2010/11	Relevant Shared Priority
Mandatory M13	Change in area wide road traffic	No more than a 5% increase in 16-hour weekday traffic flows, weighted by road length, at a representative sample of sites from 2003/04 levels by 2010/11	Better Air Quality
Mandatory M14	Principal road network where maintenance work should be considered (BVPI 223, formerly BVPI 96)	Reduce the percentage of the principal road carriageway network where maintenance should be considered, from 36% in 2004/05 to 27% by 2011	Effective Asset Management
Mandatory M15	Non principal road network where maintenance work should be considered (BVPI 224a, formerly BVPI 97a)	Reduce the length of the non-principal classified carriageway where maintenance work should be considered, from 13% in 2003/04 to 5% by 2011	Effective Asset Management
Mandatory M16	Unclassified road network where structural maintenance should be considered (BVPI 224b, formerly BVPI97b)	Reduce the length of the unclassified carriageway network where structural maintenance should be considered, from 16% in 2003/04 to 9% by 2011	Effective Asset Management
Mandatory M17	Footways where structural maintenance should be considered (BVPI 187)	Reduce the percentage of footway Category 1, 1a and 2 networks where structural maintenance should be considered. From 24% in 2003/04 to 14% in 2011	Effective Asset Management
Local L1	Satisfaction with LTP funded public transport facilities	Increase satisfaction with LTP funded public transport facilities to 90% by 2010/11	Delivering Accessibility
Local L2	Cycling trips to urban centres during the morning peak	A 20% increase in cycling trips to Leeds, Wakefield and Halifax centres during the AM peak (0730-0930) by 2010/11	Tackling Congestion
Local L3	AM peak period mode split to urban centres	Reduce the proportion of car-based trips into central Leeds from 57% to 55% by 2010/11 No increase in car mode share in Bradford, Halifax, Huddersfield and Wakefield	Tackling Congestion
Local L4	Peak period rail patronage	Increase peak time rail patronage on local train services into Leeds by 20% to 2010/11	Tackling Congestion
Local L5	Patronage on Quality Bus Corridors	Increase in bus patronage above the West Yorkshire patronage baseline on QBC's	Tackling Congestion

Key Outcome Indicators		Local Targets to 2010/11	Relevant Shared Priority
Local L6	Number of pedestrians KSI in road traffic collisions	A 50% reduction in the number of pedestrians KSI from the 1994/98 average by 2010, and stretched to a 30% reduction from the 2002-2004 average by 2010	Safer Roads
Local L7	Annual road traffic emissions of NO_X across West Yorkshire principal road network	A 20% reduction in NO_X from 2004/05 to 2010/11.	Better Air Quality
Local L8	Annual road traffic emissions of CO_2 across West Yorkshire principal road network	No increase in CO_2 emissions from 2004/05 to 2010/11.	Better Air Quality
Local L9	Structures with weight and/or width restrictions	To reduce temporary restrictions on council owned bridges to 1.5% from 4.3% in 2005	Effective Asset Management
Local L10	The percentage of bus shelters that meet modern standards i.e. have seating, lighting and/or heating and are wheelchair accessible	95% of bus shelters to meet modern standards by 2010/11.	Effective Asset Management

APPENDIX 3 MONITORING PROGRESS TOWARDS LTP2 TARGETS

The following pro-forma, developed by the Department for Transport, will be used to monitor and report annual progress towards mandatory LTP2 targets.

LTP2 Mandatory Indicators Pro-Forma

LTP	West Yorkshire (Joint Plan)

Core Indicator	Definitions	Year Type	Units	Plan Area		Year	Value		Actual and Trajectory Data								Notes
									2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	
Road Condition (% of network in need of further investigation)	(1) Principal Roads - BVPI223	Financial	Percentage	Joint Plan Area	Base Data	2004/05	36.00%	Actual Figures		36.00%							1 = BRADFORD, 2=CALDERDALE, 3=KIRKLEES, 4+LEEDS, 5= WAKEFIELD ,
					Target Data	2010/11	27.00%	Trajectory			35.00%	33.00%	32.00%	30.00%	29.00%	27.00%	
				Area 1	Base Data	2004/05	44.00%	Actual Figures		44.00%							
					Target Data	2010/11	39.00%	Trajectory			43.00%	42.00%	41.00%	40.00%	39.00%	39.00%	
				Area 2	Base Data	2004/05	39.00%	Actual Figures		39.00%							
					Target Data	2010/11	27.00%	Trajectory			37.00%	35.00%	33.00%	31.00%	29.00%	27.00%	
				Area 3	Base Data	2004/05	47.00%	Actual Figures		47.00%							
					Target Data	2010/11	35.00%	Trajectory			45.00%	43.00%	41.00%	39.00%	37.00%	35.00%	
				Area 4	Base Data	2004/05	27.00%	Actual Figures		27.00%							
					Target Data	2010/11	21.00%	Trajectory			26.00%	25.00%	24.00%	23.00%	22.00%	21.00%	
				Area 5	Base Data	2004/05	29.00%	Actual Figures		29.00%							
					Target Data	2010/11	16.00%	Trajectory			26.00%	24.00%	22.00%	20.00%	18.00%	16.00%	
				Area 6	Base Data	2004/05		Actual Figures									
					Target Data	2010/11		Trajectory									
				Area 7	Base Data	2004/05		Actual Figures									
					Target Data	2010/11		Trajectory									
				Area 8	Base Data	2004/05		Actual Figures									
					Target Data	2010/11		Trajectory									
				Area 9	Base Data	2004/05		Actual Figures									
					Target Data	2010/11		Trajectory									
				Area 10	Base Data	2004/05		Actual Figures									
					Target Data	2010/11		Trajectory									
									2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Notes
	(2) Classified, non-principal, roads - BVPI224a	Financial	Percentage	Joint Plan Area	Base Data	2005/06	10.00%	Actual Figures	13.00%	11.00%							Target to be revised once Scanner data availabe for all areas.1 = BRADFORD, 2=CALDERDALE, 3=KIRKLEES, 4+LEEDS, 5= WAKEFIELD ,
					Target Data	2010/11	5.00%	Trajectory			10.00%	9.00%	7.00%	6.00%	5.00%	5.00%	
				Area 1	Base Data	2005/06	2.00%	Actual Figures	2.00%	2.00%							
					Target Data	2010/11	2.00%	Trajectory			2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	
				Area 2	Base Data	2005/06	8.00%	Actual Figures	8.00%	6.00%							
					Target Data	2010/11	5.00%	Trajectory			6.00%	6.00%	5.00%	5.00%	5.00%	5.00%	
				Area 3	Base Data	2005/06	21.00%	Actual Figures	21.00%	17.00%							
					Target Data	2010/11	3.00%	Trajectory			15.00%	12.00%	9.00%	6.00%	3.00%	3.00%	
				Area 4	Base Data	2005/06	12.00%	Actual Figures	12.00%	11.00%							
					Target Data	2010/11	6.00%	Trajectory			10.00%	9.00%	8.00%	7.00%	6.00%	6.00%	
				Area 5	Base Data	2005/06	19.00%	Actual Figures	19.00%	16.00%							
					Target Data	2010/11	8.00%	Trajectory			14.00%	12.00%	11.00%	10.00%	9.00%	8.00%	
				Area 6	Base Data	2005/06		Actual Figures									
					Target Data	2010/11		Trajectory									
				Area 7	Base Data	2005/06		Actual Figures									
					Target Data	2010/11		Trajectory									
				Area 8	Base Data	2005/06		Actual Figures									
					Target Data	2010/11		Trajectory									
				Area 9	Base Data	2005/06		Actual Figures									
					Target Data	2010/11		Trajectory									
				Area 10	Base Data	2005/06		Actual Figures									
					Target Data	2010/11		Trajectory									

Core Indicator	Definitions	Year Type	Units	Plan Area		Year	Value		Actual and Trajectory Data								Notes
Road Condition (% of network in need of further investigation)	**(3) Unclassified roads - BVPI224b**								2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	
		Financial	Percentage	**Joint Plan Area**	**Base Data**	2003/04	16.00%	**Actual Figures**	16.00%	15.00%							1 = BRADFORD, 2=CALDERDALE, 3=KIRKLEES, 4+LEEDS, 5= WAKEFIELD ,
					Target Data	2010/11	9.00%	**Trajectory**			14.00%	13.00%	12.00%	11.00%	10.00%	9.00%	
				Area 1	**Base Data**	2003/04	3.00%	**Actual Figures**	3.00%	5.00%							
					Target Data	2010/11	5.00%	**Trajectory**			5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	
				Area 2	**Base Data**	2003/04	24.00%	**Actual Figures**	24.00%	21.00%							
					Target Data	2010/11	8.00%	**Trajectory**			18.00%	16.00%	14.00%	12.00%	10.00%	8.00%	
				Area 3	**Base Data**	2003/04	16.00%	**Actual Figures**	16.00%	15.00%							
					Target Data	2010/11	9.00%	**Trajectory**			14.00%	13.00%	12.00%	11.00%	10.00%	9.00%	
				Area 4	**Base Data**	2003/04	19.00%	**Actual Figures**	19.00%	17.00%							
					Target Data	2010/11	11.00%	**Trajectory**			16.00%	15.00%	14.00%	13.00%	12.00%	11.00%	
				Area 5	**Base Data**	2003/04	26.00%	**Actual Figures**	26.00%	23.00%							
					Target Data	2010/11	12.00%	**Trajectory**			21.00%	19.00%	17.00%	15.00%	13.00%	12.00%	
				Area 6	**Base Data**	2003/04		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
				Area 7	**Base Data**	2003/04		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
				Area 8	**Base Data**	2003/04		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
				Area 9	**Base Data**	2003/04		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
				Area 10	**Base Data**	2003/04		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
Total killed and seriously injured casualties - BVPI99(x)									1994-98	2003	2004	2005	2006	2007	2008	2009	2010	**Notes**
		Calendar	Casualties	**Joint Plan Area**	**Base Data**	1994-98	1,484	**Actual Figures**	1,484	1,237	1,215							
					Target Data	2010	890	**Trajectory**				1,138	1,088	1,039	989	940	890	
Child killed and seriously injured casualties - BVPI99(y)									1994-98	2003	2004	2005	2006	2007	2008	2009	2010	**Notes**
		Calendar	Casualties	**Joint Plan Area**	**Base Data**	1994-98	272	**Actual Figures**	272	203	148							
					Target Data	2010	136	**Trajectory**				193	181	170	159	147	136	
Total slight casualties - BVPI99(z)									1994-98	2003	2004	2005	2006	2007	2008	2009	2010	**Notes**
		Calendar	Casualties	**Joint Plan Area**	**Base Data**	1994-98	11,391	**Actual Figures**	11,391	11,566	10,816							
					Target Data	2010	9,642	**Trajectory**				11,060	10,776	10,493	10,209	9,926	9,642	

Core Indicator	Definitions	Year Type	Units	Plan Area		Year	Value		Actual and Trajectory Data								Notes
Total local public transport patronage in target	**Millions of passenger journeys (i.e. boardings) per year in the authority**	Financial	Million passenger journeys	**Joint Plan Area**	**Base Data**	2003/04		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
of which number of bus passenger journeys - BVPI102									2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	**Notes**
		Financial	Million passenger journeys	**Joint Plan Area**	**Base Data**	2003/04	199.1	**Actual Figures**	199.1	195.7							
					Target Data	2010/11	209	**Trajectory**			193.3	200.6	201.0	198.2	198.5	209	
Satisfaction with local bus services- BVPI104									2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	**Notes**
		Financial	Percentage	**Joint Plan Area**	**Base Data**	2003/04	54%	**Actual Figures**	54.00%								
					Target Data	2009/10	68%	**Trajectory**				54.00%			68.00%		
Footway condition - BVPI187 (% of the category 1, 1a and 2 footway network where structural maintenance should be considered.)									2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	**Notes**
		Financial	Percentage	**Joint Plan Area**	**Base Data**	2003/04	24%	**Actual Figures**	24%	24%							1 = BRADFORD, 2=CALDERDALE, 3=KIRKLEES, 4+LEEDS, 5= WAKEFIELD ,
					Target Data	2010/11	14%	**Trajectory**			24%	22%	19%	17%	15%	24%	
				Area 1	**Base Data**	2003/04	37%	**Actual Figures**	37%	30%							
					Target Data	2010/11	24%	**Trajectory**			29%	28%	27%	26%	25%	24%	
				Area 2	**Base Data**	2003/04	6%	**Actual Figures**	6%	6%							
					Target Data	2010/11	2%	**Trajectory**			5%	5%	4%	4%	3%	2%	
				Area 3	**Base Data**	2003/04	2%	**Actual Figures**	2%	6%							
					Target Data	2010/11	5%	**Trajectory**			5%	5%	5%	5%	5%	5%	
				Area 4	**Base Data**	2003/04	33%	**Actual Figures**	33%	31%							
					Target Data	2010/11	15%	**Trajectory**			28%	25%	22%	19%	17%	15%	
				Area 5	**Base Data**	2003/04	36%	**Actual Figures**	36%	29%							
					Target Data	2010/11	12%	**Trajectory**			26%	23%	20%	17%	14%	12%	
				Area 6	**Base Data**	2003/04		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
				Area 7	**Base Data**	2003/04		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
				Area 8	**Base Data**	2003/04		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
				Area 9	**Base Data**	2003/04		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
				Area 10	**Base Data**	2003/04		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
LPT1 - An accessibility target									2003	2004	2005	2006	2007	2008	2009	2010	**Notes**
		Calendar	% no car households within 30 mins of hospital by PT	**Joint Plan Area**	**Base Data**	2005	89.50%	**Actual Figures**			89.50%						
					Target Data	2010	89.50%	**Trajectory**				89.50%	89.50%	89.50%	89.50%	89.50%	
LTP2 - Change in area wide road traffic mileage									2003	2004	2005	2006	2007	2008	2009	2010	**Notes**
		Calendar	Vehicle Kilometres	**Joint Plan Area**	**Base Data**	2004	100	**Actual Figures**	100	100							indicator based on a sample of ATC sites weighted by road length, indexed to 100.
					Target Data	2010	105	**Trajectory**			101	102	103	104	105	105	

Core Indicator	Definitions	Year Type	Units	Plan Area		Year	Value		Actual and Trajectory Data								
LTP3 - Cycling trips (annualised index)									2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	**Notes**
		Financial	Index based on 2003/04 = 100	Joint Plan Area	Base Data	2003/04	100	Actual Figures	100								
					Target Data	2010/11	110	Trajectory		102	103	105	106	108	109	110	
LTP4 - Mode share of journeys to school	**Share of journeys by car (including vans and taxis), excluding car share journeys**								2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	**Notes**
		Financial	Percentage	Joint Plan Area	Base Data			Actual Figures									To be completed in 2007 on receipt of PLASC data
					Target Data	2010/11		Trajectory									
	percentage of which Car							Actual Figures									
	percentage of which Car Share							Actual Figures									
	percentage of which Public Transport							Actual Figures									
	percentage of which Walking							Actual Figures									
	percentage of which Cycling							Actual Figures									
LTP5 - Bus punctuality indicator	**% of buses starting route on time**								2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	**Notes**
		Financial	Percentage	Joint Plan Area	Base Data	2003/04	87.1%	Actual Figures	87.1%	86.8%							
					Target Data	2010/11	95.0%	Trajectory			86.8%	87.0%	88.3%	89.6%	92.3%	95%	
	% of buses on time at intermediate timing points								2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	**Notes**
		Financial	Percentage	Joint Plan Area	Base Data	2005/06		Actual Figures									
					Target Data	2010/11		Trajectory									
	% of buses on time at non-timing points								2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	**Notes**
		Financial	Percentage	Joint Plan Area	Base Data	2005/06		Actual Figures									
					Target Data	2010/11		Trajectory									
	Average excess waiting time on frequent service routes								2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	**Notes**
		Financial	Minutes	Joint Plan Area	Base Data	2005/06	1.29	Actual Figures	1.29	0.96							
					Target Data	2010/11	1.03	Trajectory			1.13	1.13	1.11	1.09	1.06	1.03	

Core Indicator	Definitions	Year Type	Units	Plan Area		Year	Value		Actual and Trajectory Data								Notes
LTP6 - Changes in peak period traffic flows to urban centres									2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	
		Financial	Vehicle numbers or % of all journeys that are car driver journeys	**Joint Plan Area**	**Base Data**	2005/06		**Actual Figures**									1=Bradford, 2=Halifax, 3=Huddersfield, 4=Leeds, 5=Wakefield Base Year 2003/04 or 2004/05
					Target Data	2010/11		**Trajectory**									
				Area 1	**Base Data**	2005/06		**Actual Figures**	45,500								
					Target Data	2010/11	47,000	**Trajectory**		46,800	46,700	48,500	49,000	48,500	48,000	47,000	
				Area 2	**Base Data**	2005/06		**Actual Figures**	23,600	23,500							
					Target Data	2010/11	24,300	**Trajectory**			24,000	24,100	24,200	24,300	24,300	24,300	
				Area 3	**Base Data**	2005/06		**Actual Figures**	31,100								
					Target Data	2010/11	32,000	**Trajectory**		31,600	32,00	32,600	32,700	32,500	32,300	32,000	
				Area 4	**Base Data**	2005/06		**Actual Figures**		98,300							
					Target Data	2010/11	101,300	**Trajectory**			99,700	100,600	101,300	101,300	101,300	101,300	
				Area 5	**Base Data**	2005/06		**Actual Figures**		28,200							
					Target Data	2010/11	29,000	**Trajectory**			28,700	29,000	29,100	29,100	29,000	29,000	
				Area 6	**Base Data**	2005/06		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
				Area 7	**Base Data**	2005/06		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
				Area 8	**Base Data**	2005/06		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
				Area 9	**Base Data**	2005/06		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
				Area 10	**Base Data**	2005/06		**Actual Figures**									
					Target Data	2010/11		**Trajectory**									
LTP7 - Congestion									2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	**Notes**
		Financial		**Joint Plan Area**	**Base Data**	2005/06		**Actual Figures**									to be completed in July 2006
					Target Data			**Trajectory**									
LTP8 - An air quality target related to traffic									2003	2004	2005	2006	2007	2008	2009	2010	**Notes**
		Calendar	NO2 concentration (ug/m3)	**Joint Plan Area**	**Base Data**	2004	45.8	**Actual Figures**		45.8							
					Target Data	2010	41.2	**Trajectory**			45	44.3	43.5	42.7	42	41.2	