# **Annual Return**

Reporting on the year 2004/05

31 July 2005

# Contents

Executive summary	
Introduction	I 6
Network Rail's regulatory targets	20
Key performance indicators	24
Section I – Operational performance	27
Introduction	27
Summarised network-wide data (delays to major operators)	28
National delay data by cause	30
Results for operating routes by delay category	32
Further breakdown of performance data	43
Public Performance Measure (PPM)	46
Section 2 – Asset failure	47
Infrastructure incidents recorded for attribution of delay	47
Network-wide totals	47
8 Operating Routes	49
Section 3 – Asset quality	54
KPI 6 Network Rail Asset Stewardship Incentive Index (ASII)	5
Number of broken rails (MT)	55
Rail defects (M2)	57
Track geometry - national standard deviation data (M3)	60
Track geometry – poor track geometry (M3)	62
Track geometry – speed band data (M3)	64
Track geometry – level 2 exceedences (M5)	73
Condition of asset temporary speed restriction sites (M4)	75
Earthwork failures and derailments (M6)	78
Bridge condition (M8)	80
Signalling failures (M9)	83
Signalling asset condition (M10)	85
Alternating current traction power incidents causing train delays (MII)	88
Direct current traction power incidents causing train delays (M12)	90
Electrification condition – AC traction feeder stations and track sectioning points (M13)	92
Electrification condition – DC traction substations (M14)	94
Electrification condition – AC traction contact systems (MI5)	96
Electrification condition – DC traction contact systems (M16)	98
Station condition index (M17)	100

Station facility score (M18)	103
Light maintenance depot – condition index (MI9)	106
Section 4 – Activity volumes	108
Introduction	108
Track renewals: (M20) rail renewed (M21) sleepers renewed and (M22) ballast renewe	ed109
Rail renewed (M20)	110
Sleepers renewed (M21)	111
Ballast renewed (M22)	113
Switches and crossings renewed (M25)	115
Signalling renewed (M24)	116
Bridge renewals and remediation (M23)	117
Culverts renewals and remediation (M26)	118
Retaining walls remediation (M27)	119
Earthwork remediation (M28)	120
Tunnel remediation (M29)	121
Section 5 – Network capability	122
Route classification	123
Linespeed capability (C1)	124
Gauge capability (C2)	128
Route availability value (C3)	130
Electrified track capability (C4)	131
Section 6 – Finance and efficiency	132
Network total	133
Route   Kent	136
Route 2 Brighton Main Line and Sussex	137
Route 3 South West Main Line	138
Route 4 Wessex Routes	139
Route 5 West Anglia	140
Route 6 North London Line and Thameside	141
Route 7 Great Eastern	142
Route 8 East Coast Main Line	143
Route 9 Northeast Routes	144
Route 10 North Transpennine, North and West Yorks	145
Route 11 South Transpennine, South Yorks and Lincs	146
Route 12 Reading to Penzance	
Route 13 Great Western Main Line	148
Route 14 South and Central Wales and Borders	149
Route 15 South Wales Valleys	150

	Route 16 Chiltems	.151
	Route 17 West Midlands	.152
	Route 18 West Coast Main Line	.153
	Route 19 Midlands Main Line and East Midlands	.154
	Route 20 North West Urban	.155
	Route 21 Merseyrail	.156
	Route 22 North Wales and Borders	.157
	Route 23 North West Rural	.158
	Route 24 East of Scotland	.159
	Route 25 Highlands	.160
	Route 26 Strathclyde and South West Scotland	.161
	Managed Stations (Railway Estates)	.162
	Central (Other)	.163
	WCRM	.166
	Maintenance by Territory	.168
	Efficiency	.169
Section	on 7 – Customer reasonable requirements	.173
	Key overall results	.173
Section	on 8 – Customer and stakeholder satisfaction	.175
	Passenger complaints	.175
	Customer satisfaction – passenger operators	.175
	Customer satisfaction – freight operators	.176
	Supplier Satisfaction	.176
Appe	ndix I – List of station condition	. 177
Appe	ndix 2 – Glossary of terms	.227
Appe	ndix 3 – Agreed Form of the 2005 Annual Return	.234

# **Executive summary**

#### Introduction

This is the fifth Annual Return, covering the second full year under Network Rail's stewardship and the first year of the new control period (CP3) for which new access charges and enhanced targets were set in the Access Charges Review 2003 (ACR 2003). It follows the agreed Form for the Annual Return 2005 (agreed by the Office of Rail Regulation on 28 April 2005), which is included for reference in Appendix 3.

The Annual Return reports on our operational performance; asset condition and serviceability; renewals and maintenance activity; and our investment and expenditure looking back over the 2004/05 financial year. It states our understanding of our regulatory targets, describes our high level performance in KPI measures, linking with ORR's quarterly Network Rail Monitor (NRM), and includes a section on how we are delivering against our efficiency targets for CP3. It also summarises the capability of the network and describes how we are working with our customers and funders to deliver our customer reasonable requirements (CRRs). The Annual Return compares this delivery with our forecasts and targets in the 2004 Business Plan.

This Annual Return is a parallel production to the statutory Annual Report and Accounts, published 21 June 2005, and is prepared in accordance with Condition 15 of the network licence. The expenditure figures in the Return tie in with our Regulatory Accounts and Annual Report and Accounts.

## Network Rail during 2004/05

In numbers, Network Rail delivered during 2004/05:

- 17% less delays
- 83.6% trains on time
- 4.2% more freight gross tonne miles
- 1009 km of track re-railed
- 726 km of ballast renewed
- 518 sets of points installed
- I 1% fewer points failures
- 3.6% fewer broken rails
- significant efficiency savings
- £1.1bn operating profit turnaround.

During the last year we have taken considerable strides towards our objective of delivering a safe, reliable and efficient railway. The numbers tell the story of much improved performance and we are raising the bar for future years to deliver even better than our regulatory targets require. In the last year, Network Rail attributable delay minutes fell by nearly 2.3 million minutes, from 13.7 million minutes to 11.4 million minutes. This 17% reduction in delays is an excellent achievement and means that the target set by the ORR has been exceeded by some 900,000 minutes.

At the same time we are improving our cost control, bringing in projects to time and under budget, maintaining our infrastructure better, more effectively and more efficiently, and delivering the first year's contribution to the overall 31% CP3 efficiency target required as part of the ACR 2003.

We believe these achievements are in no small part due to changes we have made in the Network Rail organisation, how we work with our stakeholders and partners in the industry, and many other specific initiatives which we are progressing.

Firstly, the ground-breaking decision to bring rail maintenance in-house was fully implemented by July 2004 and there is already evidence to suggest it has contributed to reducing delays. Most encouragingly, the areas in which maintenance came in-house first have seen some of the most marked improvements, with Thames Valley, Wessex and East Midlands more than 20% better than prior year and beating target. This suggests that further reductions in delays can be achieved in the years ahead

Our on-the-ground partnerships with train operators are delivering significant benefits for train punctuality. In seven locations around the country integrated control centres have been created, and there are more to come. This allows Network Rail and train operator employees to work alongside each other to deliver more streamlined operational decision-making. For example, at Waterloo an integrated control centre was opened in February 2004 and the first year of its operation saw a 30% reduction in delays per incident – the measure which is most impacted on by the speed of decision-making.

Further progress is being made in making the railway a more attractive option for the freight market. Building on the growth of recent years, we saw a further 4.2% increase in gross tonne miles over the previous year. A significant development for freight was the completion of the Felixstowe to Nuneaton project that has been completed on time and within budget, allowing larger containers access to the network from the ports of Felixstowe, Harwich and Tilbury.

At any one time, Network Rail is delivering a number of large projects which are critical for the future and growth of the railway. This year has been no different. The largest project we are managing is the upgrade of the West Coast mainline which is already delivering significant benefits to passengers. The new timetable introduced in September has reduced the journey time from London to Manchester by some 35 minutes and further incremental journey time reductions will be delivered by more infrastructure improvements between Manchester and Glasgow in the coming year. In addition, the Trent Valley section of the West Coast Main Line is to be doubled from two to four tracks, removing a key bottleneck and allowing improved services.

We are progressing the implementation of the Cullen Inquiry recommendation to introduce nationwide secure train cab to signaller communications, through GSM-R. The Thameslink Programme to upgrade the vital north-south artery through London has made good progress with the submission of the new planning applications relating to Blackfriars station, Borough Market and London Bridge station. Furthermore, the project to upgrade the power supply in the south east of England to facilitate the introduction of some 2,000 new train vehicles is nearing completion. The project will cost  $\pounds$ 650 million against original estimates of  $\pounds$ 1 bn. Over 1,800 of the new vehicles are now operating on the network and "slam-door" trains will be removed by the end of 2005.

Next, important structural changes to the rail industry were announced by the Government with the publication of the White Paper, "The Future of Rail", in July 2004 and the passing into law of the Railways Act in April 2005.

One of Network Rail's new responsibilities from this review is to produce, on behalf of the industry, Route Utilisation Strategies (RUSs) for each part of the network. The company is moving forward with the development of the RUS process and is committed to an inclusive process, with a high degree of involvement from train operators and other stakeholders. Another new accountability is for overall train performance where we are working closely with train operators to develop Joint Performance Improvement Plans. We continue to work together with ORR, which is itself taking on new responsibilities to become the rail economic and safety regulator, and to develop the concept of an

information network to give access to consistent data, developed by those best placed so to do, for the use of those who legitimately need it. Linked to this, we are also working closely with ORR on the preparation for the next Access Charges Review in 2008, including the development of an infrastructure cost model and the network modelling framework.

There have been significant improvements to the informed traveller timescales and process (T-12). This has been a problem for the industry for several years and Network Rail agreed a recovery plan with the ORR such that, by September, the timetable will be agreed with passenger operators no less than 12 weeks before the date of travel. This will enable the industry to deliver against its long-term commitment to passengers in respect of enabling them to book suitably in advance of travel.

## Our overall performance

We monitor our performance using sets of indicators, pulled together and summarised at high level as our Key Performance Indicators (KPIs). Many of these are reported quarterly by ORR in its Network Rail Monitor, which also includes a number of regulatory KPIs, and ORR has specifically required some to be reported in this Annual Return. The table below summarises our performance in the key areas. The full KPI set is given in the Annual Return with an explanation of the (sometimes subtle) differences between them, subject by subject and, where available, we also give information for earlier years to show the trend.

Train performance is improving; we are demonstrating significant improvements in the stewardship of our fixed infrastructure, and we have maintained an appropriate level of investment in the network. In line with the ORR targets, we are delivering these works more efficiently and are seeing correlations of this better targeted investment with improved network performance, delivering passengers and freight to their destinations safely and more punctually.

	Unit of measure	2004/05 Target	2004/05 Actual	Variance	Met target?
Train performance					
Public performance measure	%	82.8	83.6	0.8	Υ
Train delay minutes	million minutes	12.3	11.443	857	Y
Asset failure					
ORR asset failure KPI 4	number of incidents	N/a	58546		N/a
Asset quality					
Network Rail asset stewardship incentive index(ASII)		1.063	0.898	0.165	Υ
Activity volumes					
Activity volumes: % of activity	%	100	94.3	5.7	N/a*
compared with plan					
Finance and efficiency					
Expenditure variance	%	N/a	-13.7		N/a*
Debt to RAB ratio	%	85.8	77.2	8.6	Υ
Network Rail financial efficiency index (FEI)	Index	2,199	2,144	55	Υ
Overall cost control	%	0-10	-15.0	-5.0	N/a*
Customer satisfaction					
Passenger complaints	number/100k journeys	110	68	42	Y
Customer satisfaction – passenger operators	index from -2 to +2	N/a	-0.47	N/a	N/a
Customer satisfaction – freight operators	index from -2 to +2	N/a	-0.87	N/a	N/a

<sup>\*</sup> Activity volumes/expenditures are lower than planned. There are a number of reasons for this, including improved efficiency and deferral of some activity. This is discussed in more detail in the Business Plan reconciliation section.

# Performance against regulatory targets

Network Rail is charged with delivering against output targets for CP3 – targets that were established at the Access Charges Review 2003. Most of these targets apply to later years in CP3, but have intermediate aims or milestones for earlier years, so we are reporting progress to give an indication as to how we are performing. Later sections in this Annual Return give a more detailed explanation, but overall we are meeting regulatory targets, and on the way to meeting the requirements that relate to future years.

Table 2 Per	formance against regulatory targets			
Measure	Target	Performance 2003/04	Performance 2004/05	Met target?
Delay minutes	12.3 million mins (2004/05), then 11.3, 10.6, 9.8, 9.1 (2008/09)	13.7	11.4	Y
Network capability	No reduction from broadly existing use at April 2001 levels			(Y)
Broken rails	No more than 300 pa by 2005/06	334	322	(Y)
Track geometry	L2 exceedences per track mile to no more than 0.9 by 2005/06	1.11	0.91	(Y)
Temporary speed restrictions	Annual reduction in TSRs	1199	936	Y
Structures & electrification	Condition & serviceability to return to 2001/02 levels			Broadly achieved
Other measures	No deterioration from 2003/04 levels			Broadly achieved

## Network Rail's performance during 2004/05

Summarising our performance, as detailed in the main sections in this Annual Return, we confirm:

- a. Operational performance: Steady, continuing and substantive improvement over the five years since Hatfield with 11.4 million Network Rail attributable train delay minutes, a reduction of 2.3 million minutes or 17% improvement on the previous year. Delays to passenger train services fell by 18% while those to freight fell by 10%, with a significant though smaller improvement in Network Rail-attributable delay to freight trains of about 5%. TSR (in respect of track, structures, earthworks etc.) numbers are down by 22% in the year for passenger trains their overall impact on delays is down 32%.
- b. Asset condition and serviceability: Significant improvements in the stewardship of our fixed infrastructure have been made over the past few years, as shown by the improved state of the Asset Stewardship Incentive Index, from a benchmark level of 1.20 at the ACR 2003 to 0.898 in 2004/05 already at the baseline level for 2008/09 of 0.90. Asset by asset, all condition and serviceability indicators are showing steady state condition, or an improvement, apart from earthworks failures and DC traction electrification assets. In particular we are making real progress in improving track geometry, managing the highest safety risk issues, and in key targeted performance areas such as broken rails (lowest for over a decade).
- c. Renewal and maintenance activity: Measures of asset condition continue to demonstrate improvement, partly as a result of the sizeable increases in renewal volumes which have occurred in recent years, but also we believe due to improved maintenance practices. In broad terms, activity is in line with 2004 Business Plan forecasts, back to pre-Hatfield levels, following peaks of activity to deal with gauge corner cracking (GCC). As discussed below, however, some work has been deferred to later in the control period mainly in order to ensure that this can be delivered as efficiently as possible.
- d. Investment in and expenditure on the network: 2004/05 has seen a more focused, targeted approach to renewals and particularly enhancements making sure the investment can be delivered efficiently. Maintenance is in line with plans at much the same level as over the last two years; renewals and enhancements are both down on plans, and from last year. This is partly due to additional efficiencies or reduced third party plans but also partly due to deferral of expenditure, which is discussed further below. We believe our strategy is delivering effectively against our regulatory targets, and not storing up problems for the future. This view is consistent with the significant improvement throughout the year in key indicators of infrastructure condition (such as the numbers of asset failures and the quality of track geometry).
- e. **Network capability:** Network Rail continues to provide broadly the same network capability for existing use as at April 2001. It is now calculated centrally by the headquarters function to improve consistency of reporting.
- f. Customer reasonable requirements (CRRs): down from 112 at the start of the year to 52 still 'live' at end March 2005.

#### Operational performance

The greatly improved performance of the network in 2004/05 was very welcome but we recognise the need to continue to drive further improvements working with train operators. I I.4 million train delay minutes were attributable to Network Rail compared with I 3.7 million in 2003/04, a drop of I 7%, with traffic volumes maintained. Performance in terms of delay minutes is key to our overall performance as a company, being a measure of how well we deliver our output to our customers.

We were particularly pleased to see improvements in the industry's delivery to its passengers, in terms of improved public performance measure (PPM) that gauges overall industry punctuality of franchised passenger train services. During 2004/05 this has improved by more than two percentage points to 83.6% - equivalent to a reduction in the number of late trains of more than 10%.

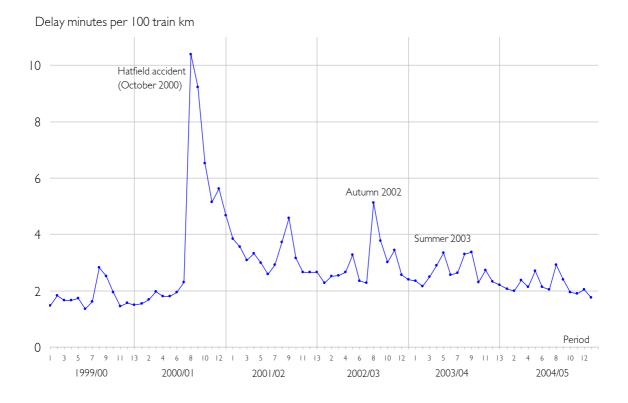
Also we saw reductions in delay per incident figures reflecting effort made through our performance improvement programmes, including the Performance Action Plan (PFI), six-sigma analysis of root causes of problems, and route by route with the train operating companies through joint performance improvement initiatives including the introduction of integrated control centres and operational improvements in the effectiveness of incident management and service recovery.

All categories of delay showed reductions from 2003/04, apart from severe weather/structures, which are relatively small in absolute terms, contributing only 7% to the total 11.4 million minutes delay attributable to Network Rail. In order of contribution to total delay, each category showed the following percentage change:

- points defects and track circuit failures, signalling and power failures (9% down)
- network management, possessions, signaller error, etc (7% down)
- external factors (17% down)
- track defects and temporary speed restrictions (TSRs) (34% down)
- severe weather/structures delays (8% up)
- autumn leaf fall/adhesion (39% down)

The performance improvement continued during the year, illustrated by the continued downward trend (highlighted last year when the last six months of 2003/04 saw close to a 20% reduction in delay minutes compared to the same period in 2002/03). For franchised passenger trains, the delay per 100 train km figure shows the trend approaching pre-Hatfield levels; for freight, the delay per 100 train km fell 5% to 4.52.

Figure | Delays to franchised passenger trains by four-weekly period: 1999/00 – 2004/05

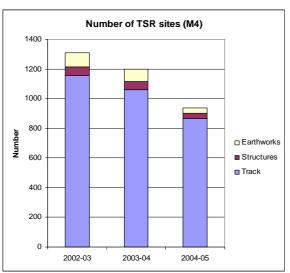


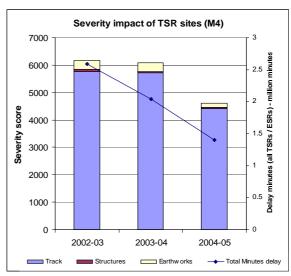
These improvements combined with the efforts of the train operators enabled the proportion of trains classified as having arrived on time on a rolling annual average basis (the public performance measure (PPM)) to rise from 81.2% to 83.6%.

Whilst it is still too early for firm trends, we believe that this significantly improved train performance is in no small part due to bringing maintenance in-house, our restructuring in May 2004, and our subsequent management from then.

Numbers of temporary speed restrictions (TSRs) imposed on the network are also showing a steady reduction year on year (down by 22% this year) but, more importantly, our policy of prioritising actions addressing the speed restrictions which have the greatest impact on train performance has resulted in the adverse impact of TSRs on train punctuality and delay minutes falling still further by 32%. We are encouraged by this trend, which, insofar as the number of TSRs is a proxy for condition, is a trend in the right direction. Figure 2 illustrates this.

Figure 2 Temporary speed restriction delay minutes and numbers



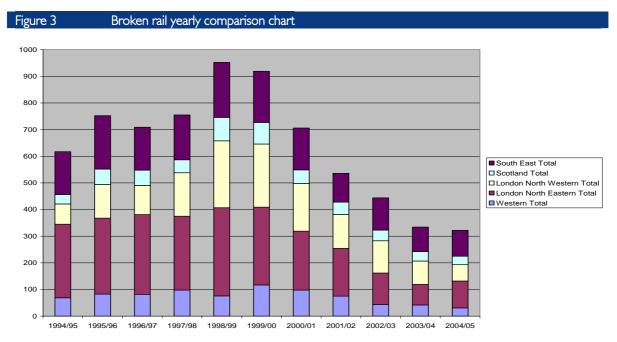


Note: Many TSRs are on rural lines that have zero or minor impact on train performance.

## Asset condition and serviceability

Asset condition and serviceability continue to show improvement across most of the asset base, and Network Rail is well placed to meet regulatory targets, exceeding the baseline level of performance in the Asset Stewardship Incentive Index (ASII). The ASII is an indicator consisting of weighted values for track geometry, broken rails, level 2 exceedences, points and track circuit failures, signalling failures, electrification asset failures, and structures and earthworks TSRs. It was benchmarked at the ACR 2003 at a level of 1.20 with a glide path down to 0.90 for 2008/09. In 2004/05, the level of the indicator was 0.898.

Rail renewal and other initiatives to reduce the incidence of broken rails continue to have a positive effect. These have reduced the number to 322 in 2004/05 – yet again the lowest since records began and down to around a third of the peaks of more than 900 in 1998/99 and 1999/2000. Figure 3 illustrates.



We achieved further improvement in track geometry, and reductions in track geometry faults (level 2 exceedences), as a result of our continuing initiative to focus efforts on areas of poorest track to achieve safety benefits.

Long-lived assets, such as those generally on the railway, tend not to change condition significantly year by year. The table below shows the trend by asset. All measures have stayed constant or improved between 2003/04 and 2004/05, except earthworks failures (M6) and DC electrification failures (M16), and all, apart from these, are meeting regulatory targets.

Measure	2003/04	2004/05	Met target?
M6 Earthworks failures	47	54	X
M8 Bridge condition	2.0	2.0	Υ
M9 Signalling failures	28,098	24,950	Y
M10 Signalling asset condition	2.5	2.5	Υ
MII AC power incidents	79	71	Y
M12 DC power incidents	33	13	Υ
MI3 AC traction sub-stations condition	1.9	1.87	Y
M14 DC traction sub-stations condition	1.9	1.82	Y
MI5 AC contact systems condition	1.7	1.7	Y
M16 DC contact systems condition	1.8	1.9	X
M17 Station condition	2.25	2.23	Υ
M19 LMD condition	2.7		(Y)

# Renewal and maintenance activity

Measures of asset condition continue to demonstrate improvement, partly as a result of the sizeable increases in renewal volumes which have occurred in recent years, but also we believe due to improved maintenance practices. In broad terms, activity is in line with 2004 Business Plan forecasts, back to pre-Hatfield levels, following peaks of activity to deal with gauge corner cracking (GCC) failures. The table below shows activity over the past five years. The 2005 Annual Return contains new measures for earthwork and tunnel renewals, but the picture is of some reduced activity, generally lower than 2004 Business Plan forecasts, but in line to meet output needs. Specific reasons for significant differences between 2004 Business Plan forecasts and actual achievement are given in the main body of the document. Some of the apparent underspend/reduction in activity is good news, as we are delivering more for our funders' money, and delivering it in the right places to best impact on improving performance in getting trains running to time (i.e. delivering scope efficiencies); some represents deferral of activity to a later date.

Table 4	f Track activity volume c	omparison					
		2000/01	2001/02	2002/03	2003/04	BP2004	2004/05
Rail	(km of track renewed)	1,064	983	1,010	1,198	874	816
Sleeper	(km of track renewed)	475	636	666	837	695	668
Ballast	(km of track renewed)	496	624	665	812	690	685
Switch 8	k crossing (No. of units replaced)	-	136	254	373	539	511
Signalling	g (SEUs)	1,338	1,440	810	742	N/a	1,586

Note: All activity volumes include WCRM; signalling investment forecasts at Business Plan 2004 were not built up in a way that enables forecast activity to be expressed in SEUs.

# Investment in and expenditure on the network; reconciliation with the 2004 Business Plan forecasts and performance against expectations

Whilst the key expenditure and investment areas of maintenance, renewals and enhancements all saw steady increases from 2000/01 through 2003/04, in line with our plans, 2004/05 has seen a more focused, targeted approach to renewals and particularly enhancements — making sure the investment can be delivered efficiently; and a maintenance strategy that gets the most out of the newly in-house operation. Maintenance is in line with plans; renewals and enhancements are both down on plans, and from last year. Our focused approach is effectively delivering as evidenced by our performance and the delivered outputs, and it is being efficiently delivered as confirmed in the efficiency sections of this Return and the measures we are putting in place for the ORR to monitor our progress. Material variances between actual and forecast expenditure and investment are explained in the body of this document.

Track renewal investment is down on that forecast in the 2004 Business Plan but real benefits are still being delivered in very low broken rail numbers. Investment in some other asset renewals is down on forecasts in the Business Plan 2004, notably signalling (where we have been challenging real needs and scopes, alongside the interim review of signalling expenditure); plant (associated with reduced mobilisation requirements for high output plant); and electrification assets.

Our 2005 Business Plan indicated that we have reprofiled our renewals expenditure over the control period so that the required outputs can be delivered as efficiently as possible. This means that expenditure in the later years of the control period is expected to increase further and that over the control period as a whole expenditure is expected to be broadly in line with the assumptions made in ACR 2003.

Table 5	Expenditure comparison (£m)					
	2000/01	2001/02	2002/03	2003/04	BP2004	2004/05
Maintenance	698	950	1,184	1,245	1,290	1,271
Renewal	1,583	2,021	2,421	3,203	3,105	2,665
Enhancement	562	806	746	770	1,348	821

All figures include West Coast Route Modernisation.

#### Efficiency

We have delivered significant improvements in efficiency in 2004/05. Further reductions in operating costs have been made and costs were well below the efficient level assumed by the ORR in the ACR 2003 determination. Maintenance costs are also lower than the level assumed by the ORR, with cost savings achieved whilst asset serviceability measures have been improving, indicating that the quality of the activity is also improving. The overall improvement in efficiency across our renewals activity was broadly in line with the 8% improvement assumed by the ORR.

#### Network capability

Network capability has remained very similar to that of previous years, and we believe that we are providing this for broadly existing use at April 2001 levels. We are engaged in further discussion with the ORR and our relevant stakeholders about the definition of baseline capability for which we are funded and are seeking to take this forward as part of the development of RUSs and route plans.

#### Customer reasonable requirements

We continued to improve clarity and robustness of customer reasonable requirements (CRRs), working with our customers to identify those that were ill-defined, or no longer part of their business plans. During the year, 60 CRRs were completed or withdrawn from the 112 existing at the beginning of the year. No new requirements were added and the total number of CRRs live at 31 March 2005 therefore was 52.

#### ORR's Network Rail Monitor

The ORR published its first quarterly 'Network Rail Monitor' (NRM) covering performance during the third quarter 2004/05, as measured in a series of 12 high level KPIs, some of which match Network Rail's own key performance indicators. The NRM covering the fourth quarter reports the ORR's view of our performance at the end of the reporting year 2004/05. We are working with the ORR and the Scottish Executive to provide a separate NRM for Scotland, in view of the new role the Scottish Executive will have in funding the rail industry in Scotland.

#### Reporters

This year's Annual Return has been audited by independent reporters (technical auditors). This is the forth Return that has had this external, independent scrutiny and we have built on the findings from the earlier audits and implemented agreed recommendations. Our reporting is now demonstrably more robust, partly as a result of the discipline that their work has imposed on our reporting.

#### Data confidence

The confidence that can be placed in the figures in this Return is indicated by the confidence grades included in the tables and text. These grades have been discussed and generally agreed with the reporters. Some improvements are evident from last year, though we think there is further to go if we are to report suitably robustly for our needs and for those of the ORR as we move towards the next periodic review, due in 2008.

#### Disaggregation

Following the new role for the Scottish Executive as a result of the Rail Review, the Annual Return for 2005/06 will contain further disaggregated information on the costs and performance of the Scottish part of the network. We are discussing the detailed requirements with ORR, Scottish Executive and the Department for Transport. During 2005/06 we also expect to start producing disaggregated information in relation to Scotland for the Network Rail Monitor.

# Introduction

This is the fifth Annual Return describing performance by Great Britain's rail network infrastructure provider, Network Rail. It reports on investment and expenditure, operational performance, activity and asset condition for the 2004/05 financial year, disaggregated where appropriate. We also include key performance indicators (KPIs), mostly agreed with the ORR and forming a part of their quarterly Network Rail Monitor or 'balanced scorecard'.

The Annual Return is the primary means by which Network Rail demonstrates progress in delivering outputs assumed in the ACR 2003. The Annual Return is publicly available, enabling stakeholders to use it as an important reference document.

Whilst for most measures, performance is described as that occurring during the year, or our position at the end of the year 2004/05, it should be noted that the laid down procedure for reporting of some measures (e.g. equipment failures) allows six months in which to agree the attribution of the cause of the failure. This may mean that some incidents are re-attributed after the Annual Return has been published; in such instances it may be necessary to show adjusted figures in next year's Annual Return.

As with previous Annual Returns, a national figure for each measure is included. However to reflect Network Rail's re-organisation, measures have been disaggregated by 26 strategic routes, by eight operating routes or by territory. A diagram is attached at the end of this section to illustrate this.

It should be noted that throughout the document "0" represents rounded numbers less than 0 and "-" means that there is no figure or a zero, unless otherwise stated as in section 6.

## Scope of reporting against targets

In order to facilitate comparisons of our performance with that assumed at the recent access charges review many of the regulatory outputs are measured against targets established at that Access Charges Review 2003. A number of these targets for assets and network capability are specified as required to be demonstrating our performance relative to that in earlier years (e.g. condition for electrical condition etc. to be returned to that at 2001/02).

Most asset condition information is based on assessments from a sample of assets and as more surveys are carried out, the reliability of the data reported for each asset category will improve, hence facilitating better comparisons with requirements.

### Asset data quality

We have continued to improve our data processes and databases which have resulted in better data quality. There has also been a company action plan, which has looked at streamlining reporting and aligning definitions and measures throughout the company. Therefore together with the re-organisation this has further ensured that appropriate people are responsible for regular reporting of measures. This has also enabled us to deal with reporting and reconciliation with last year's Annual Return to reflect the change in the structure of the company from Regions to Territories.

# Confidence reporting

We have assessed the quality of the data presented and described this in the Return by use of confidence grades. These consist of two aspects, an alpha part indicating the reliability of the data (A-D) where A is the most reliable, being based on sound documented records, procedures, investigations and/or analysis, and D relies on at best unconfirmed verbal reports, cursory inspections or analysis, little better than a guess); and a numeric part describing the accuracy (1-6 where I is within  $\pm$  I% and 6 indicates poor accuracy defined as within the band  $\pm$ 50% -  $\pm$ 100%). Many measures can be reported as at A2, A3, B2 or B3 confidence; others are reported outside this typical range. For small numbers where accuracy cannot be properly ascribed, an 'X' is substituted in the numeric part of the confidence grade.

The tables below summarise the gradings:

Reliability band	Description
A	Sound textual records, procedures, investigations or analysis properly documented and recognised as the best method of assessment.
В	As A but with minor shortcomings. Examples include old assessment, some missing documentation, some reliance on unconfirmed reports, some use of extrapolation.
С	Extrapolation from limited sample for which Grade A or B data is available.
D	Unconfirmed verbal reports, cursory inspections or analysis.

Accuracy band	Accuracy to within +/-	but outside +/-
1	1%	-
2	5%	1%
3	10%	5%
4	25%	10%
5	50%	25%
6	100%	50%
X	Accuracy outside +/- 100 %, small numb	ers or otherwise incompatible

Compatible confidence grades					
			R	Reliability band	
Accuracy band	Α	В	С	D	
	Al				
2	A2	B2	C2		
3	A3	В3	C3	D3	
4	A4	B4	C4	D4	
5			C5	D5	
6				D6	
X	AX	BX	CX	DX	

#### Independent reporters

In October 2002, the Rail Regulator and Railtrack appointed independent reporters, Halcrow and Mouchel Parkman, to provide an independent view on the accuracy and significance of the data that we report as part of the monitoring of the stewardship of the rail network. The reporters have assessed the quality of the data provided in previous Annual Returns and the validity of the processes by which this data has been produced. Previously the reporters' workload has been split essentially on a geographical basis; for this 2005 Annual Return, matching Network Rail's new structure from May 2004, their work has been allocated using a functional split. The broad allocation is that Halcrow covers track nationally, TSRs, signalling, electrification — asset condition, serviceability, renewals and reconciliation with Business Plan; Mouchel covers those aspects for structures, stations and light maintenance depots. Mouchel also covers train performance reporting, infrastructure incidents, capability, progress with CRRs and other KPls.

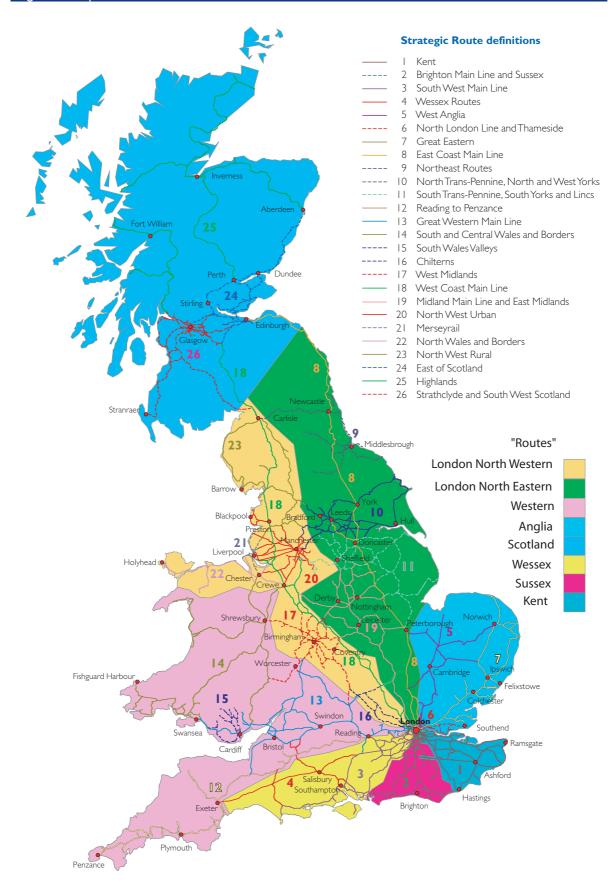
The recommendations from previous reporters' reports have been taken into consideration in the compilation of this Return, after discussion with the ORR. We have discussed the confidence grades in the Return with the reporters, however these represent our view. In future, we hope to measure confidence grades in a consistent way with the reporters so that they can be included as agreed in the Annual Return.

## Regulatory accounts

The ORR reporting regime includes a requirement to prepare a set of Regulatory Accounts to report information that is relevant to setting access charges and which allows Network Rail's financial performance compared to the ACR 2003 to be monitored. Regulatory Accounts for 2004/05 are not included in this Annual Return, but are submitted to ORR in a separate document that is also made publicly available.

# The map of the network





# Network Rail's regulatory targets

Network Rail's regulatory targets for the third control period (CP3), April 2004 – March 2009, were set in the ACR 2003: Final Conclusions. These regulatory targets, summarized in Table 6 are distinct from Network Rail's internal targets, which are the company's way of managing the assets to achieve agreed regulatory targets, and from incentives, which provide a means of additional remuneration to Network Rail if it improves on certain baseline levels of performance. One example of the last of these is the Asset Stewardship Incentive Index, which is not targeted by a regulatory requirement, but does contain elements that have individual regulatory targets (e.g. level 2 exceedences, signalling failures, broken rails).

Table 6 Regulatory targets for the five year period 2004/05 to 2008/09					
Name of measure	Regulatory ta				
Total Network Rail caused delay (million minutes)	2004/05:	12.3			
	2005/06:	11.3			
	2006/07:	10.6			
	2007/08:	9.8			
	2008/09:	9.1			
Train delay minutes/100 train kms (franchised	2004/05:	2.34			
passenger operators)	2005/06:	2.12			
	2006/07:	1.97			
	2007/08:	1.80			
	2008/09:	1.65			
Broken rails	Reduction in	the number of broken rails to no more than			
	300 per annu	ım by 2005/06. No increase thereafter.			
Track geometry	Reduction in the number of L2 exceedences per track mile				
	to no greater	than 0.9 by 2005/06. No increase thereafter.			
	Track geometry (standard deviations) - the regulatory				
	target is to m	aintain 2003/04 levels.			
Temporary speed restrictions	Annual reduc	tion required.			
Structures and electrification	Condition an	d serviceability to return to 2001/02 levels.			
Other measures	Other asset o	condition and serviceability measures to show			
	no deteriorat	tion from 2003/04 levels.			
Network capability	Maintain the	capability of the network for broadly existing			
	use at April 2001 levels (subject to network changes				
	authorised under the Network Code).				

Source: Chapter 9 of the ACR 2003: Final Conclusions.

These targets have been translated into values, which Network Rail believes are to be met measure by measure. These are set out in the table 7.

	ets for the five year period 2004/05 to 200	
Measure	Regulatory target	tolerance <sup>2</sup>
MI Broken rails	Reduction in the number of broken rails to no more than 300 per annum by 2005/06. No increase thereafter.	The statistical tolerance for the broken rail measure has been assessed as $\pm 13.7\%$ of the target.
M2 Rail defects		-
M3 Track geometry	The regulatory target is to maintain 2003/04 levels; no deterioration from this level during this control period.	The statistical tolerance for an average of the 12 measures has been assessed as +/- 0.7 on an average measure. Tolerances for each of the 12 individual measures which make up track geometry have not been assessed.
M5 Level 2 exceedances	Reduction in the number of L2 exceedences per track mile to no greater than 0.9 by 2005/06. No increase thereafter.	The statistical tolerance for the level 2 exceedence measure has been assessed as ±7% of the target.
M4 Temporary speed restrictions	Annual reduction required from 2003/04 levels i.e. from 1,199 for track, structures and earthworks TSRs.	To be assessed.
M6 Earthwork failures and derailments	This is covered by "Other asset condition and serviceability" with no deterioration from 2003/04 levels, i.e. 47 national earthwork failures.	To be assessed.

M8 Bridge Condition	Condition and serviceability to return to 2001/02 levels, which was approximately 2.0, but the full target (and tolerance) cannot be firmly established until all bridges have undergone Structures Condition Monitoring Index, which is anticipated to be in 2007/08.	The tolerance for the bridge condition index has been assessed as $\pm$ 0.1 on the target.
M9 Signalling failures	This is covered by "Other asset condition and serviceability" with no deterioration from 2003/04 levels i.e. 28,098 signalling failures at 59 million train km per annum.	The statistical tolerance for signalling failures has been assessed as ±7.3% of the target.
M10 Signalling asset Condition	This is covered by "Other asset condition and serviceability" with no deterioration from 2003/04 levels, i.e. 2.5.	The tolerance for the signalling condition index has been assessed as $\pm$ 0.1 on the target.
MII AC Traction Power Incidents causing train delays	No deterioration from number of incidents reported in 2001/02, i.e. 107.	The statistical tolerance for overhead line failures has been assessed as ±28% of the target.
M12 DC Traction Power Incidents causing train delays	No deterioration from number of incidents reported in 2001/02, i.e. 30.	The statistical tolerance for conductor rail failures has been assessed as ±47% of the target.
M13 AC Feeder stations and track sectioning points	Condition and serviceability to return to 2001/02 levels, i.e. 2.1.	The tolerance for AC feeder station condition has been assessed as ±0.1 on the target.
MI4 DC Traction substations	Condition and serviceability to return to 2001/02 levels, i.e. 2.3.	The tolerance for DC feeder station condition has been assessed as $\pm$ 0.1 on the target.
MI5 AC Traction contact systems	Condition and serviceability to return to 2001/02 levels, i.e. 1.8.	The tolerance for overhead line condition has been assessed as ± 0.1 on the target.
M16 DC Traction contact systems	Condition and serviceability to return to 2001/02 levels, i.e. 1.8.	The tolerance for conductor rail condition has been assessed as ± 0.1 on the target.
M17 Station condition index	This is covered by "Other asset condition and serviceability" with no deterioration from 2003/04 levels, i.e. 2.25.	The tolerance for the station condition index has been assessed as $\pm$ 0.1 on the target.
M18 Station facility score	No regulatory target	-
M19 Light maintenance depots – condition index	This is covered by "Other asset condition and serviceability" with no deterioration from 2003/04 levels, i.e. 2.7.	The tolerance for the depot condition index has been assessed as $\pm$ 0.1 on the target.

- 1. Condition assessments are based on inspections during the year stated and previous years, hence do not necessarily describe the condition of the asset base at the year taken as the baseline.
- 2. All infrastructure output measures are subject to statistical variability caused by random fluctuation and the accuracy of data measurement. This "noise" is expressed above as a tolerance when comparing actual values in this Annual Return with any regulatory target. ORR has stated that it will take account of statistical variations when assessing performance against regulatory targets. The tolerances shown above are those established in the 2000 Periodic Review; tolerances relating to the regulatory targets set in the ACR 2003 have not been agreed with ORR. These tolerances are therefore illustrative in nature.

As stated, the above measures are regulatory targets which the company works towards achieving through internal targets, some of which are in the Business Plan and some of which are used as part of the company's performance incentive framework. The last of these are the Key Performance Indicators (KPIs) as explained in the next section. One Key Performance Indicator is the Asset Stewardship Incentive Index covered in Section 3 Asset Quality. This KPI is a composite of various asset measures and the baselines for these are stated in section 3.

# Key performance indicators

Network Rail's performance and achievement of the company's corporate goals is measured through a set of high level key performance indicators (KPIs). These high level KPIs are supported by a set of secondary KPIs. This full set of KPIs have been embedded into the Business Plan and included within the internal reporting cycle.

The purpose and definition of the high level KPIs are:

#### Public performance measure

This indicator monitors performance of the railway network for passengers. It is defined as the percentage of trains arriving on time. 'On time' is defined as planned and arriving less than 5 minutes late at final destination or less than 10 minutes late for inter-city operators.

#### Train delay minutes

This is the primary supporting measure in the delivery of improved PPM punctuality for franchised passenger operators, and as the main measure of network performance delivery to other operators (including freight). Delay minutes provide detailed management information on the location, cause and nature of disruption leading to poor PPM performance. As such it provides crucial management information to allow the prioritisation of management action and resources.

#### The ORR asset failure

This indicator measures the total number of asset failure incidents causing train delay where the cause is the responsibility of Network Rail. Therefore the performance of the assets can be measured where failure directly delays trains.

#### Asset stewardship incentive index

This indicator shows how asset stewardship is being improved. The asset stewardship incentive index reflects the overall status of a number of contributory indicators that have been selected to provide an incentive for our stewardship of the rail network. The contributors are track geometry, number of broken rails, level 2 exceedences, number of signalling failures, points/track circuit failures, structure and earthwork TSRs and traction power supply failures. The asset stewardship incentive index is the weighted sum of these individual components.

#### Activity volumes

This indicator gives the percentage of track renewals actually delivered compared to the volume planned.

#### Expenditure variance

This indicator compares Network Rail's cumulative year-to-date and full-year forecast expenditure on operations (including schedule 4 and 8 payments), maintenance, renewals and ACR 2003 funded enhancements against the company's own budgeted expenditure.

#### Debt to RAB ratio

This financing indicator measures Network Rail's net debt as a percentage of its regulatory asset base. This can be considered as a proxy for the financial gearing of the company.

#### Financial efficiency index

This indicator measures the efficiency of expenditure on Territory-level operations, maintenance, plain line track renewals and key headquarter based expenditure items. At Territory level the measure allows comparison between Territories by incorporating activity levels as well as spends for maintenance and plain line track renewals.

#### Regulatory asset base (RAB) adjustment for passenger and freight volume incentives

These indicators promote the use and development of the rail network. They are volume based measures dependent on growth as reflected in the regulatory volume incentive.

For RAB adjustment for passenger volume incentive, the volume incentive is based on the growth over and above a baseline level of growth in:

- I. actual passenger train miles; and
- 2. farebox revenue.

For RAB adjustment for freight volume incentive, the volume incentive is based on the growth over and above a baseline level of growth in:

- I. actual freight train miles; and
- gross tonne miles.

#### Overall cost control

This indicator measures the percentage overspend/underspend on total expenditure with the aim to encourage more effective cost control at both a Territory and central level. The overspend/underspend measure is relative to the final budget agreed prior to the start of the year.

#### Passenger complaints

This indicator aims to improve services to passengers by assessing their direct feedback. It is defined as an expression of dissatisfaction by a customer or potential customer about service delivery or about company or industry policy, and is measured as the number of complaints per 100,000 journeys.

#### Customer satisfaction – train operators

This indicator measures the attitude directed towards Network Rail from board members of the TOCs in respect to their satisfaction with the service being provided. This assessment aims to generate clear evidence over a period of time that Network Rail can improve its level of service to the TOCs.

#### Supplier satisfaction - major suppliers

This indicator measures the attitude major suppliers direct towards Network Rail in respect to their levels of satisfaction of the service being provided. The index is calculated by measuring responses from major suppliers using the advocacy rating.

The results for the full set of high level KPIs for 2004/05 are included in the table below.

	Unit of	2004/05	2004/05	Variance
	measure	Target	Actual	
Train performance				
Public performance measure	%	82.8	83.6	0.8
Train delay minutes	Minutes	12.300	11.443	0.857
	(millions)			
Asset failure				
ORR asset failure KPI 4	No. of	N/a	58547	
	incidents			
Asset quality				
Network Rail asset stewardship incentive index(ASII)	%	1.063	0.898	0.165
Activity volumes				
Activity volumes: % of activity compared with plan	%	100	94.3	5.7
Finance and efficiency				
Expenditure variance	%	N/a	-13.7	
Debt to RAB ratio	%	85.8	77.2	8.6
Network Rail financial efficiency index (FEI)	Index	2,199	2,144	55
RAB adjustment for passenger volume incentives	£m	0.2	26.0	25.8
RAB adjustment for freight volume incentives	£m	-6.2	3.2	-3.0
Overall cost control	%	0-10	-15.0	-5.0
Customer satisfaction				
Passenger complaints	No. /100K	110	68	42
	journeys			
Customer satisfaction – train operators	Index from -2	N/a	-0.47	N/a
	to +2			
Customer satisfaction – freight operators	Index from -2	N/a	-0.87	N/a
	to +2			
Supplier satisfaction – major suppliers		N/a	N/a	N/a

Note: positive variances imply targets are being met.

# Section I – Operational performance

#### Introduction

The main cross-industry measure of operational performance for franchised passenger services is PPM (Public Performance Measure). PPM is a measure of the overall punctuality and reliability of train services delivered to passengers. Following recent changes in industry responsibilities for performance reporting and management, from April 2005 Network Rail has become accountable for the reporting and delivery of industry train performance (PPM). PPM figures are now shown in this section, both at national and operator level (see table X).

Delay minutes remain the main performance measure underpinning the punctuality of passenger train services, and remains the key measure of operational performance delivery to freight services. Delays to train journeys experienced by passenger and freight companies are broken down into Network Rail-caused delays and those caused by train operators. Those attributable to Network Rail typically relate to infrastructure, timetabling and operation of the network or external events impacting the network. Those attributable to train operators typically relate to train operations, fleet reliability, problems with train crew resources or external causes affecting trains. In 2004/05 some 51% of all delays to passenger trains were attributable to Network Rail, down from 55% in 2003/04.

This Annual Return provides data on Network Rail-caused delays only. Figures are presented for 2004/05 in delay minutes and in minutes delay per 100 train kilometres, with disaggregated results split down by cause, by Network Rail route and into those delays affecting passenger and freight trains.

# Commentary

PPM punctuality increased by 2.4 percentage points to 83.6% for the full year 2004/05. This represents a reduction of 13% in the number of trains running late, and compares to a reduction in total delays to franchised passenger operators (whether attributable to Network Rail or to train operators) of 12%.

Delay minutes attributable to Network Rail's infrastructure and network management fell by 17% to 11.4 million minutes in 2004/05. This reduction of 2.3 million minutes exceeded the improvement required to meet the regulatory target (12.3 million minutes) by around 900,000 minutes.

Table 9						
Network Rail-attributed delays	1999/00	2000/01	2001/02 <sup>2</sup>	2002/03	2003/04	2004/05
Total delay minutes (including minor operators) <sup>1</sup>	7,817,367	17,390,754	13,787,916	14,716,772	13,716,937	11,402,720
Train km (million) <sup>3</sup>	462.67	452.58	464.54	472.17	482.06	478.04
Delay per 100 train km <sup>4</sup>	1.69	3.84	2.97	3.12	2.85	2.39
Regulatory target (total delay minutes)						12,300,000

- Total Network Rail attributed delay minutes include delays to a number of minor operators, which are excluded from the measures of delay to major operators (passenger and freight) reported in detail in the Annual Return. These include London Underground Limited (LUL) Bakerloo line services, charter operations and miscellaneous services.
- 2. Data definitions and process were changed slightly from 2002/03 onwards. The figures shown for 2001/02 are re-stated for comparison purposes based on a methodology consistent with 2002/03 and 2003/04 figures. Figures for 1999/00 and 2000/01 have not been restated, and the effect of this re-statement is included only in the footnotes elsewhere in this report.
- 3. Train kilometre run excluding empty coaching stock movements, as recorded in the performance database (PALADIN).
- 4. Based on delay minutes, divided by the train kilometres run, multiplied by 100.

# Summarised network-wide data (delays to major operators)

#### Introduction

The delay minutes data presented in the remainder of this section are Network Rail-attributed delays to the main scheduled passenger train services and freight operators. This is consistent with data presented for previous years and excludes delays to other types of operator (such as London Underground services and charter operations), which account for around 0.3% of the total Network Rail - attributed delays.

## National delays to scheduled passenger train services

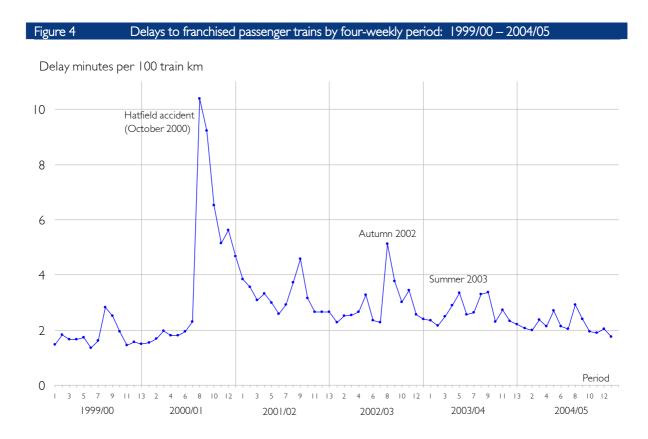
Total Network Rail-attributed delays to passenger trains fell by 18% in 2004/05. Traffic volumes, measured in train kilometres run, were essentially unchanged compared to 2003/04 (after allowing for I day less during the year).

Within this total, delays to franchised passenger operators fell to 2.18 minutes per 100 train km, which was 7% better than the regulatory target for this measure.

Table 10 National delays to passenge	er train service	es (regulatory	monitoring t	arget)		
Network Rail-attributed delays	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Delay minutes <sup>1</sup>	6,357,365	14,328,453	11,289,684	12,214,993	11,394,367	9,311,884
Train km (million) <sup>2</sup>	411.78	402.79	412.18	421.27	430.47	428.83
Delay minutes per 100 train km³	1.54	3.56	2.74	2.90	2.65	2.17
Delays to franchised operators (minutes per 100 train km)						
Actual	1.55	3.56	2.75	2.92	2.66	2.18
Regulatory target						2.34

- 1. The delay totals are based on all PfPI delays, affecting applicable passenger operators (main scheduled operators). Minor differences exist between 1999/00 and 2002/03 in the methodology used for compilation.
- 2. Train km run for trains of applicable operators, excluding empty coaching stock movements, as recorded in PALADIN.
- 3. Based on all PfPI Delay minutes, divided by the train kilometres run, multiplied by 100.
- 4. Data definitions and process were changed slightly for 2002/03. The effect of applying these to 2001/02 data for comparison purposes would be to increase the delay minutes from 11.29m to 11.64m.
- 5. From 2004/05 onwards, targets were set based on delay to franchised passenger operators only. This excludes results for non-franchised operators (Eurostar, Heathrow Express, Hull Trains and Nexus) which are included in the remaining figures in this table.

The trends in delays to passenger trains (relative to the train kilometres run) over the last six years is illustrated in Figure 1. This highlights the impact of the disruption after the Hatfield accident, the subsequent recovery, the impact of autumn in the following two years, and the improving trend over the last two years.



# National delays to freight train services

Delays to freight trains fell by 10% to 2.1 million minutes. Total train kilometres run fell by nearly 5%, although this was entirely due to the cessation of the main Royal Mail rail services. Excluding these, freight train kilometres increased by 3.6%.

Table II National delays to	o freight train :	services				
Network Rail-attributed delays	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Delay minutes <sup>1</sup>	1,399,325	3,004,408	2,094,688	2,451,402	2,279,360	2,057,063
Train km (million) <sup>2</sup>	47.09	46.56	48.76	47.20	47.83	45.52
Delay minutes per 100 train km³	2.97	6.45	4.30	5.19	4.77	4.52

- 1. The delay totals are based on all PfPI delays affecting applicable freight operators (main scheduled operators).
- 2. Train kilometres run for trains of applicable operators, excluding empty coaching stock movements, as recorded in PALADIN.
- 3. Based on all PfPI delay minutes, divided by the train kilometres run, multiplied by 100.
- 4. Data definitions and processes were changed slightly for 2002/03. The effect of applying these to 2001/02 data for comparison purposes would be to increase the delay minutes from 2.09m to 2.11m.

# National delay data by cause

## National data by delay category grouping

The trends in delay minutes by broad category groupings are shown below, followed by a detailed commentary focusing on these groups and the individual delay categories. (Table 12).

Table 12 National del	Table 12 National delays to passenger and freight trains by summarised category groups – trend									
Category group	2001/	02	2002/	03	2003/	04	2004/05			
	Total delay minutes	· /	Total delay minutes	Delay minutes per 100 train km	Total delay minutes	•	,	,		
Track defects and TSRs <sup>2</sup>	3,024,543	0.66	2,514,840	0.54	2,128,394	0.44	1,399,184	0.29		
Other asset defects <sup>3</sup>	4,058,661	0.88	4,656,471	0.99	4,510,007	0.94	3,667,027	0.77		
Network management/other <sup>4</sup>	3,547,582	0.77	4,041,872	0.86	3,884,869	0.81	3,601,440	0.76		
Autumn leaf fall and adhesion <sup>5</sup>	476,773	0.10	529,550	0.11	469,113	0.10	287,282	0.06		
Severe weather/structures <sup>6</sup>	778,207	0.17	1,042,184	0.22	737,445	0.15	796,378	0.17		
External factors <sup>7</sup>	1,498,606	0.33	1,881,478	0.40	1,943,899	0.41	1,617,636	0.34		
Total minutes	13,384,372	2.90	14,666,395	3.13	13,673,727	2.86	11,368,947	2.40		
Train km (million)	460.94		468.47		478.30		474.35			

- 1. Delay totals are based on all delays recorded for attribution of responsibility to Network Rail, divided by train kilometres run.
- 2. Track defects and TSRs include broken rails, other track faults and speed restrictions for condition of track and rolling contact fatigue.
- 3. Other asset defects include points, track circuits, signal and signalling system failures, overhead power/third rail supply etc.
- 4. Network management/other delays include possessions, signalling errors, timetabling, dispute resolution and unexplained.
- 5. Autumn leaf fall and adhesion include leaf fall-related delays and Network Rail's share of industry adhesion delays.
- 6. Severe weather/structures includes direct delays due to severe weather and all structures delays, which include weather-related delays due to embankment instability risks, bridge scour and flooding. Heat-related speed restrictions are also shown within this category.
- 7. External factors include road-related incidents, fires, trespass and vandalism, security alerts, suicides and other external events.

#### Commentary

Compared to 2003/04, the largest improvements were in track and other asset-related delays (see Table 7 and Table 9). In percentage terms, track-related delay ("Track defects and TSRs") fell by the largest amount with a 34% reduction in delays (or 729,210 minutes). This reflected broadly similar rates of improvement in TSRs due to condition of track and track faults (including broken rails), together with a further sharp fall in speed restrictions due to rolling contact fatigue (category 104c).

The improvement in delays due to track TSRs reflected the reductions in the number of TSRs on the network and the continued prioritisation of removing high impact speed restrictions from key routes. The reduction in delays due to track faults (including broken rails) is consistent with the improvements seen in the numbers of such faults occurring, and the general improvement in average delay per incident.

In actual minutes terms, the largest contribution to improvement came from the "other asset defects" group of categories (points, track circuits, signalling and power supply etc) with a reduction in delays of 842,980 minutes – or 19%. This reflected an 8% reduction in incidents and a 12% improvement in the average delay per incident reflecting an underlying improvement in incident management and service recovery achieved through operational initiatives such as the establishment of integrated controls, supported by close industry co-operation. Combined with reduced numbers of asset failures, this also contributed to the reduction in delays in every single asset-related category of delay at a national level.

The "network management/other" group of delay categories saw a 7% reduction in delay minutes, with a reduction in possessions-related delays (categories 107a/b), signaller and other operations responsibility delays (category 501) and "other infrastructure" causes (category 106). A significant part of this latter improvement was achieved through the introduction of new technology and procedures for track inspection patrolling on the West Coast Main Line. Together, these more than offset an increase in train planning delays, which reflected shortages of experienced employees, disruption caused by re-location of some train planning functions, and the introduction of new computer systems.

The small category of "mishap-infrastructure causes" dropped back in 2004/05, although this improvement was largely explained by the absence of the major crane derailment incident at Clapham Junction in the previous year.

"Autumn leaf fall and adhesion" delay minutes improved by 39%. While this was a result of further improvements in autumn preparation, railhead cleaning and operational response, it partly also reflects relatively benign weather conditions.

The "severe weather/structures" category saw an 8% increase in delays compared to the previous year. Severe weather in the summer months caused significant disruption in the North East and Scotland, while winter weather also caused significant delays in much of the country.

External category delays (categories 112, 401-403, 503-506) fell by 17% (a reduction of 326,263 minutes), reflecting both a reduction in incidents and improved incident management and service recovery. In particular delays due to fires (both on and adjacent to the railway network) fell by 50% (with a reduction of 102,440 minutes), compared to the previous year when there had been a number of very major fire incidents. Delays due to fatalities and trespass (category 503) also fell by 57,129 minutes, with a further improvement of 93,249 minutes arising from "other external" causes (category 506). This improvement partly reflected the reduction in major incidents such as the London electricity supply cuts of the previous year.

# National data by delay category

Material changes in delay minutes by cause category are described above, and the detailed figures by category are presented below:

- a) actual delay minutes for 2004/05 split between passenger and freight services (table 6); and
- b) total delays for each category compared to previous years (table 7).

Overall, 34 out of the 38 categories of delay saw improvements compared to previous year. Of the remaining 4, the only categories showing a material increase in delays were the severe weather and train planning categories reflecting the causes noted above.

_	National delays to passenger an							
No.	Category	Passenger		Freight tr				
		Delay	Delay ·	Delay	Delay ·	Delay	Delay	
		minutes	minutes per 100	minutes	minutes per 100	minutes	minutes per 100	
			train km		train km		train km	
101	Points failures	714,928	0.17	167,944	0.37	882,872	0.19	
102	Problems with trackside signs, TSR boards	55,402	0.01	5,704	0.01	61,106	0.01	
103	Level crossing failures	120,860	0.03	13,321	0.03	134,181	0.03	
104A	TSRs due to condition of track	356,996	0.08	173,431	0.38	530,427	0.11	
104B	Track faults (including broken rails)	678,600	0.16	171,111	0.38	849,711	0.18	
104C	Rolling contact fatigue	15,640	0.00	3,406	0.01	19,046	0.00	
	Lineside structure defects (inc. weather	140,083	0.03	94,536	0.21	234,619	0.05	
105	impact)		0.00	, ,,,,,,	0.21	25 .,6 . /	0.00	
106	Other infrastructure	354,640	0.08	86,587	0.19	441,227	0.09	
107A	Possession over-run and related faults	226,266	0.05	79,051	0.17	305,317	0.06	
107B	Possession work left incomplete	81,272	0.02	14,364	0.03	95,636	0.02	
108	Mishap - infrastructure causes	61,236	0.01	19,471	0.04	80,707	0.02	
109	Animals on line	132,783	0.03	15,395	0.03	148,178	0.03	
110	External weather impact	469,485	0.11	92,274	0.20	561,759	0.12	
IIIA	Wheel slip due to leaf fall	81,046	0.02	6,715	0.01	87,761	0.02	
IIIB	Vegetation management failure	17,605	0.00	1,129	0.00	18,734	0.00	
112	Fires on Network Rail infrastructure	38,345	0.01	7,542	0.02	45,887	0.01	
150	Network Rail share of industry leaf fall/adhesion delays	175,262	0.04	3,698	0.01	178,960	0.04	
201	Overhead line/third rail faults	254,746	0.06	38,224	0.08	292,970	0.06	
301A	Signal failures	383,816	0.09	50,220	0.11	434,036	0.09	
301B	Track circuit failures	943,551	0.22	115,221	0.25	1,058,772	0.22	
302A	Signalling system and power supply failures	331,999	0.08	78,156	0.17	410,155	0.09	
302B	Other signal equipment failures	86,308	0.02	19,910	0.04	106,218	0.02	
303	Telephone failures	37,936	0.01	4,577	0.01	42,513	0.01	
304	Cable faults (signalling and telecoms)	110,989	0.03	30,313	0.07	141,302	0.03	
304A	Change of aspects - no fault found	14,663	0.00	1,167	0.00	15,830	0.00	
305	Track circuit failures - leaf fall	15,185	0.00	5,376	0.01	20,561	0.00	
401	Bridge strikes	294,283	0.07	29,732	0.07	324,015	0.07	
402	External infrastructure damage – vandalism/theft	257,282	0.06	62,499	0.14	319,781	0.07	
403	External level crossing/road incidents (not bridges)	78,084	0.02	13,973	0.03	92,057	0.02	
501	Network Rail operations responsibility	691,850	0.16	134,422	0.30	826,272	0.17	
502A	Train planning	400,236	0.09	246,502	0.54	646,738	0.14	
502B	Network Rail commercial: other	7,254	0.00	5,820	0.01	13,074	0.00	
502C	Network Rail commercial: dispute take-back	613,683	0.14	128,276	0.28	741,959	0.16	
503	External fatalities and trespass	495,448	0.12	58,871	0.13	554,319	0.12	
504	External police on line/security alerts	37,700	0.01	4,752	0.01	42,452	0.01	
505	External fires	44,821	0.01	11,732	0.03	56,553	0.01	
506	External other	153,764	0.04	28,808	0.06	182,572	0.04	
601	Unexplained	337,837	0.08	32,833	0.07	370,670	0.08	
Total n	ninutes	9,311,884	2.17	2,057,063	4.52	11,368,947	2.40	
	ilometres (million)	428.83		45.52		474.35		

Table 14				led cause cat 2002/0			04	2004/2	_
No.	Category					2003/		2004/05	
		Total delay minutes	Delay minutes per 100 train km	Total delay minutes	Delay minutes per 100 train km	Total delay minutes	Delay minutes per 100 train km	Total delay minutes	Delay minutes per 100 train km
101	Points failures	953,254	0.21	1,206,543	0.26	1,065,887	0.22	882,872	0.19
102	Problems with trackside signs, TSR boards	68,313	0.01	86,155	0.02	72,769	0.02	61,106	0.01
103	Level crossing failures	140,098	0.03	168,363	0.04	142,037	0.03	134,181	0.03
104A	TSRs due to condition of track	1,005,580	0.22	1,085,208	0.23	809,947	0.17	530,427	0.11
104B	Track faults (including broken rails)	1,030,372	0.22	1,178,882	0.25	1,244,069	0.26	849,711	0.18
104C	Rolling contact fatigue	988,591	0.21	250,750	0.05	74,378	0.02	19,046	0.00
105	Lineside structure defects (inc. weather impact)	330,529	0.07	332,341	0.07	274,968	0.06	234,619	0.05
106	Other infrastructure	470,863	0.10	582,746	0.12	610,463	0.13	441,227	0.09
107A	Possession over-run and related faults	291,435	0.06	364,411	0.08	304,992	0.06	305,317	0.06
107B	Possession work left incomplete	113,273	0.02	94,410	0.02	117,898	0.02	95,636	0.02
108	Mishap - infrastructure causes	55,776	0.01	53,061	0.01	107,970	0.02	80,707	0.02
109	Animals on line	173,562	0.04	153,377	0.03	162,510	0.03	148,178	0.03
110	External weather impact	447,678	0.10	709,843	0.15	462,477	0.10	561,759	0.12
IIIA	Wheel slip due to leaf fall	130,718	0.03	113,069	0.02	124,301	0.03	87,761	0.02
IIIB	Vegetation management failure	14,797	0.00	18,966	0.00	12,542	0.00	18,734	0.00
112	Fires on Network Rail infrastructure	65,155	0.01	60,911	0.01	81,642	0.02	45,887	0.01
150	Network Rail share of industry leaf fall/adhesion delays	325,031	0.07	306,079	0.07	305,232	0.06	178,960	0.04
201	Overhead line/third rail faults	357,032	0.08	350,894	0.07	395,062	0.08	292,970	0.06
301A	Signal failures	463,732	0.10	509,725	0.11	510,991	0.11	434,036	0.09
301B	Track circuit failures	1,179,782	0.26	1,418,682	0.30	1,269,960	0.27	1,058,772	0.22
302A	Signalling system and power supply failures	473,516	0.10	482,853	0.10	572,099	0.12	410,155	0.09
302B	Other signal equipment failures	88,441	0.02	133,160	0.03	130,046	0.03	106,218	0.02
303	Telephone failures	38,932	0.01	44,014	0.01	48,806	0.01	42,513	0.01
304	Cable faults (signalling and telecoms)	168,104	0.04	146,318	0.03	193,616	0.04	141,302	0.03
304A	Change of aspects - no fault found	22,208	0.00	42,542	0.01	18,993	0.00	15,830	0.00
305	Track circuit failures - leaf fall	21,024	0.00	110,402	0.02	39,580	0.01	20,561	0.00
401	Bridge strikes	232,588	0.05	357,427	0.08	335,176	0.07	324,015	0.07
402	External infrastructure damage - vandalism/theft	403,708	0.09	369,946	0.08	341,241	0.07	319,781	0.07
403	External level crossing/road incidents (not bridges)	105,775	0.02	121,076	0.03	123,666	0.03	92,057	0.02
501	Network Rail operations responsibility	1,078,029	0.23	996,320	0.21	963,008	0.20	826,272	0.17
502A	Train planning	538,930	0.12	574,950	0.12	496,376	0.10	646,738	0.14
502B	Network Rail commercial: other	53,578	0.01	31,743	0.01	22,965	0.00	13,074	0.00
502C	Network Rail commercial: dispute take-back	394,876	0.09	859,141	0.18	756,976	0.16	741,959	0.16
503	External fatalities and trespass	449,755	0.10	605,212	0.13	611,448	0.13	554,319	0.12
504	External police on line/security alerts	44,719	0.01	38,473	0.01	50,776	0.01	42,452	0.01

Table 14	National delays to pa	assenger and freight tra	ins by deta	National delays to passenger and freight trains by detailed cause category – trends									
No.	Category	2001/	2001/02		2002/03		04	2004/05					
		Total delay minutes	Delay minutes per 100	Total delay minutes	Delay minutes per 100	Total delay minutes	Delay minutes per 100	minutes	Delay minutes per 100				
			train km		train km		train km		train km				
505	External fires	49,054	0.01	111,896	0.02	124,129	0.03	56,553	0.01				
506	External other	147,852	0.03	216,537	0.05	275,821	0.06	182,572	0.04				
601	Unexplained	467,712	0.10	379,969	0.08	418,910	0.09	370,670	0.08				
Total min	utes	13,384,372	2.90	14,666,395	3.13	13,673,727	2.86	11,368,947	2.40				
Train km		460.94		468.47		478.30		474.35					

<sup>\*</sup>Note: while dispute resolution and technical enquiries can result in further changes in data over time, to ensure a like-for-like comparison with similar timescales for attribution changes, prior year figures are not revised in the table above.

# Results for operating routes by delay category

# Commentary on operating routes

The delays by cause category across Network Rail's eight Routes are shown in Tables 15 - 25. These show delays to passenger and freight services, and delay per 100 train kilometres. From these it can be seen that:

- overall delay per 100 train km is highest on London North Western (LNW) (2.95 minutes per 100 train km) and lowest on Wessex (1.90 minutes). Other Routes are within a relatively narrow range (2.08 2.44 minutes);
- the impact of track delays is relatively severe on the London North Western and London North Eastern routes relative to train kilometres run (compared to other routes);
- Sussex has a disproportionately high share of external caused delay (21% of total delays). This compares with a national average of 14% while the lowest share occurs in Scotland (9%);
- Anglia experiences the highest relative share of overhead line/third rail delays (6% of route delays), compared to a national average of 3%. These differences partly reflect the nature of infrastructure on these routes (i.e. Western has virtually no delays in this category, and only minimal electrified routes);
- the southern routes (Kent, Sussex, and Wessex) in relative terms incur twice the level of autumn delay (4% of total delays) as other routes (2%). Kent has the highest overall share; and
- Scotland and Kent were the routes most affected by severe weather delays in 2004/05.

The trends in train performance during the year can be seen from Table 21, which shows delays by Route split down into four-week periods. The first half of the year was marked by two relatively poor periods (Periods 3 and 5):

- Period 3 saw a combination of increased weather delays, some major vandalism incidents, and an increase in points and signalling failures. The increase in delays can be noted in the LNW and Anglia results for that period; and
- Period 5 was the more pronounced period of poor performance, with weather-related delays responsible for the majority of the increase, together with some increase in signalling and external causes. The increase in delay was particularly seen in Scotland, London North Eastern, and Wessex.

The main autumn periods (Periods 8-9) saw a normal seasonal increase in delays, although this was much less pronounced than in many earlier years. The final four periods of the year showed a consistently improved level of delay, with an average of less than 800,000 minutes a period achieved.

Table 15	· · · · · · · · · · · · · · · · · · ·	and freight trains by detailed cause category – 2004/05  Train delay minutes					
No	Category	D	·				
		Passenger	Freight	Combined	Per 100 train km		
101	Points failures	92,987	36,091	129,078	0.12		
102	Problems with trackside signs, TSR boards	13,099	1,930.00	15,029	0.01		
103	Level crossing failures	33,862	5,930.00	39,792	0.04		
104A	TSRs due to condition of track	182,684	97,129.00	279,813	0.26		
104B	Track faults (including broken rails)	185,011	78,809.00	263,820	0.24		
104C	Rolling contact fatigue	1,722	9.00	1,731	0.00		
105	Lineside structure defects (inc. weather impact)	33,419	56,607.00	90,026	0.08		
106	Other infrastructure	62,701	45,785.00	108,486	0.10		
107A	Possession over-run and related faults	33,702	14,668.00	48,370	0.04		
107B	Possession work left incomplete	8,420	2,487.00	10,907	0.01		
108	Mishap - infrastructure causes	26,564	7,890.00	34,454	0.03		
109	Animals on line	28,580	6,035.00	34,615	0.03		
110	External weather impact	102,470	33,486.00	135,956	0.13		
IIIA	Wheel slip due to leaf fall	10,105	1,249.00	11,354	0.01		
IIIB	Vegetation management failure	7,315	422.00	7,737	0.01		
112	Fires on Network Rail infrastructure	624	386.00	1,010	0.00		
150	Network Rail share of industry leaf fall/adhesion	32,490	854.00	33,344	0.03		
150	delays	32, 170	03 1.00	33,3 1 1	0.03		
201	Overhead line/third rail faults	61,979	7,663.00	69,642	0.06		
301A	Signal failures	61,974	18,127.00	80,101	0.07		
301B	Track circuit failures	97,848	26,805.00	124,653	0.12		
302A	Signalling system and power supply failures	62,293	28,242.00	90,535	0.08		
302B	Other signal equipment failures	21,342	7,576.00	28,918	0.03		
303	Telephone failures	11,592	2,761.00	14,353	0.01		
304	Cable faults (signalling and telecoms)	16,086	6,330.00	22,416	0.02		
304A	Change of aspects - no fault found	2,315	343.00	2,658	0.00		
305	Track circuit failures - leaf fall	8,544	2,827.00	11,371	0.01		
401	Bridge strikes	63,451	8,634.00	72,085	0.07		
402	External infrastructure damage - vandalism/theft	58,465	16,148.00	74,613	0.07		
403	External level crossing/road incidents (not bridges)	26,319	4,509.00	30,828	0.03		
501	Network Rail operations responsibility	136,290	45,037.00	181,327	0.17		
502A	Train planning	48,421	71,760.00	120,181	0.11		
502B	Network Rail commercial: other	485	2,556.00	3,041	0.00		
502C	Network Rail commercial: dispute take-back	105,987	39,897.00	145,884	0.14		
503	External fatalities and trespass	110,177	23,059.00	133,236	0.12		
504	External police on line/security alerts	6,541	1,902.00	8,443	0.01		
505	External fires	8,224	2,057.00	10,281	0.01		
506	External other	33,254	6,740.00	39,994	0.04		
601	Unexplained	92,495	14,751.00	107,246	0.10		
Total min	-	1,889,837	727,491	2,617,328	2.43		
	(million)*	.,,	,,.,	107.73			

<sup>\*</sup>Note: Route splits of train kilometres for 2004/05 is based on an updated mapping and is not directly comparable to the 2003/04 Regional figures shown in the 2004 Annual Return

Table 16	London North Western delays to passenge	er and freight rains by detailed cause category – 2004/05						
No	Category	Train delay minutes						
		Passenger	Freight	Combined	Per 100 train			
					km			
101	Points failures	223,360	59,955	283,315	0.27			
102	Problems with trackside signs, TSR boards	25,157	1,706.00	26,863	0.03			
103	Level crossing failures	13,585	634.00	14,219	0.01			
104A	TSRs due to condition of track	138,834	64,501.00	203,335	0.19			
104B	Track faults (including broken rails)	187,033	32,967.00	220,000	0.21			
104C	Rolling contact fatigue	8,812	1,896.00	10,708	0.01			
105	Lineside structure defects (inc. weather impact)	61,042	27,037.00	88,079	0.08			
106	Other infrastructure	172,723	26,787.00	199,510	0.19			
107A	Possession over-run and related faults	48,911	24,311.00	73,222	0.07			
107B	Possession work left incomplete	53,604	8,827.00	62,431	0.06			
108	Mishap - infrastructure causes	4,627	1,528.00	6,155	0.01			
109	Animals on line	40,569	4,706.00	45,275	0.04			
110	External weather impact	86,786	18,082.00	104,868	0.10			
IIIA	Wheel slip due to leaf fall	23,559	2,578.00	26,137	0.02			
IIIB	Vegetation management failure	2,983	140.00	3,123	0.00			
112	Fires on Network Rail infrastructure	9,271	5,169.00	14,440	0.01			
150	Network Rail share of industry leaf fall/adhesion	44,305	1,104.00	45,409	0.04			
	delays							
201	Overhead line/third rail faults	69,929	21,287.00	91,216	0.09			
301A	Signal failures	106,984	9,826.00	116,810	0.11			
301B	Track circuit failures	257,708	31,266.00	288,974	0.27			
302A	Signalling system and power supply failures	87,766	22,604.00	110,370	0.10			
302B	Other signal equipment failures	20,927	6,564.00	27,491	0.03			
303	Telephone failures	4,333	379.00	4,712	0.00			
304	Cable faults (signalling and telecoms)	36,261	8,231.00	44,492	0.04			
304A	Change of aspects - no fault found	4,571	377.00	4,948	0.00			
305	Track circuit failures - leaf fall	2,240	1,115.00	3,355	0.00			
401	Bridge strikes	51,596	4,934.00	56,530	0.05			
402	External infrastructure damage - vandalism/theft	97,007	34,938.00	131,945	0.12			
403	External level crossing/road incidents (not bridges)	7,231	2,028.00	9,259	0.01			
501	Network Rail operations responsibility	142,212	35,852.00	178,064	0.17			
502A	Train planning	69,643	40,794.00	110,437	0.10			
502B	Network Rail commercial: other	5,075	1,763.00	6,838	0.01			
502C	Network Rail commercial: dispute take-back	170,667	42,856.00	213,523	0.20			
503	External fatalities and trespass	100,019	13,360.00	113,379	0.11			
504	External police on line/security alerts	6,145	1,465.00	7,610	0.01			
505	External fires	6,735	1,706.00	8,441	0.01			
506	External other	34,665	7,060.00	41,725	0.04			
601	Unexplained	122,062	7,454.00	129,516	0.12			
Total min		2,548,937	577,787	3,126,724	2.95			
	metres (million)	2,0 10,707	5,7,707	106.05	2.75			

Table 17	Scotland delays to passenger and freight trai							
No	Category		Train delay	minutes				
		Passenger	Freight	Combined	Per 100 train			
101	D. 1 6 !!	77.570	1,4507	04.175	km			
101	Points failures	77,578	16,597	94,175	0.20			
102	Problems with trackside signs, TSR boards	4,932	936.00	5,868	0.01			
103	Level crossing failures	11,142	1,595.00	12,737	0.03			
104A	TSRs due to condition of track	5,889	4,460.00	10,349	0.02			
104B	Track faults (including broken rails)	44,539	11,873.00	56,412	0.12			
104C	Rolling contact fatigue	1,466	397.00	1,863	0.00			
105	Lineside structure defects (inc. weather impact)	27,218	7,320.00	34,538	0.07			
106	Other infrastructure	6,762	4,206.00	10,968	0.02			
107A	Possession over-run and related faults	14,201	6,988.00	21,189	0.04			
107B	Possession work left incomplete	3,146	1,250.00	4,396	0.01			
108	Mishap - infrastructure causes	6,586	933.00	7,519	0.02			
109	Animals on line	17,838	2,147.00	19,985	0.04			
110	External weather impact	69,887	19,155.00	89,042	0.19			
IIIA	Wheel slip due to leaf fall	6,575	242.00	6,817	0.01			
IIIB	Vegetation management failure	1,878	154.00	2,032	0.00			
112	Fires on Network Rail infrastructure	0	-	0	-			
150	Network Rail share of industry leaf fall/adhesion	10,475	515.00	10,990	0.02			
	delays							
201	Overhead line/third rail faults	13,513	2,771.00	16,284	0.03			
301A	Signal failures	55,766	7,480.00	63,246	0.13			
301B	Track circuit failures	78,458	12,935.00	91,393	0.19			
302A	Signalling system and power supply failures	29,092	8,778.00	37,870	0.08			
302B	Other signal equipment failures	9,532	1,343.00	10,875	0.02			
303	Telephone failures	3,791	286.00	4,077	0.01			
304	Cable faults (signalling and telecoms)	6,226	260.00	6,486	0.01			
304A	Change of aspects - no fault found	50	-	50	0.00			
305	Track circuit failures - leaf fall	0	-	0	-			
401	Bridge strikes	16,167	2,666.00	18,833	0.04			
402	External infrastructure damage - vandalism/theft	14,756	3,340.00	18,096	0.04			
403	External level crossing/road incidents (not bridges)	4,072	495.00	4,567	0.01			
501	Network Rail operations responsibility	43,961	6,255.00	50,216	0.11			
502A	Train planning	40,410	18,942.00	59,352	0.13			
502B	Network Rail commercial: other	222	343.00	565	0.00			
502C	Network Rail commercial: dispute take-back	78,153	17,841.00	95,994	0.20			
503	External fatalities and trespass	24,815	2,541.00	27,356	0.06			
504	External police on line/security alerts	2,400	98.00	2,498	0.01			
505	External fires	2,881	4,587.00	7,468	0.02			
506	External other	11,493	1,544.00	13,037	0.03			
601	Unexplained	60,772	5,824.00	66,596	0.03			
Total mir		806,642	177,097	983,739	2.08			
	metres (million)	000,012	1,7,077	47.28	2.00			

Table 18		eight trains by detailed cause category – 2004/05						
No	Category		Train delay	minutes				
		Passenger	Freight	Combined	Per 100 train			
					km			
101	Points failures	55,399	15,503	70,902	0.16			
102	Problems with trackside signs, TSR boards	2,330	391.00	2,721	0.01			
103	Level crossing failures	21,450	1,992.00	23,442	0.05			
104A	TSRs due to condition of track	11,869	4,166.00	16,035	0.04			
104B	Track faults (including broken rails)	60,464	21,369.00	81,833	0.19			
104C	Rolling contact fatigue	134	3.00	137	0.00			
105	Lineside structure defects (inc. weather impact)	2,869	848.00	3,717	0.01			
106	Other infrastructure	29,980	3,626.00	33,606	0.08			
107A	Possession over-run and related faults	35,804	12,856.00	48,660	0.11			
107B	Possession work left incomplete	4,555	1,054.00	5,609	0.01			
108	Mishap - infrastructure causes	9,756	1,541.00	11,297	0.03			
109	Animals on line	8,642	558.00	9,200	0.02			
110	External weather impact	40,902	7,624.00	48,526	0.11			
IIIA	Wheel slip due to leaf fall	2,485	395.00	2,880	0.01			
IIIB	Vegetation management failure	697	40.00	737	0.00			
112	Fires on Network Rail infrastructure	1,077	173.00	1,250	0.00			
150	Network Rail share of industry leaf fall/adhesion	8,586	227.00	8,813	0.02			
201	delays	F0.407	F.1.10.00		0.12			
201	Overhead line/third rail faults	50,607	5,110.00	55,717	0.13			
301A	Signal failures	22,694	2,790.00	25,484	0.06			
301B	Track circuit failures	77,879	10,669.00	88,548	0.20			
302A	Signalling system and power supply failures	27,903	8,108.00	36,011	0.08			
302B	Other signal equipment failures	6,833	775.00	7,608	0.02			
303	Telephone failures	5,133	331.00	5,464	0.01			
304	Cable faults (signalling and telecoms)	8,911	491.00	9,402	0.02			
304A	Change of aspects - no fault found	1,334	20.00	1,354	0.00			
305	Track circuit failures - leaf fall	4,401	1,408.00	5,809	0.01			
401	Bridge strikes	24,929	2,578.00	27,507	0.06			
402	External infrastructure damage - vandalism/theft	16,847	2,093.00	18,940	0.04			
403	External level crossing/road incidents (not bridges)	12,647	1,549.00	14,196	0.03			
501	Network Rail operations responsibility	80,104	24,944.00	105,048	0.24			
502A	Train planning	38,115	40,346.00	78,461	0.18			
502B	Network Rail commercial: other	406	30.00	436	0.00			
502C	Network Rail commercial: dispute take-back	21,596	4,691.00	26,287	0.06			
503	External fatalities and trespass	64,457	7,191.00	71,648	0.16			
504	External police on line/security alerts	1,864	396.00	2,260	0.01			
505	External fires	10,747	2,645.00	13,392	0.03			
506	External other	16,422	2,688.00	19,110	0.04			
601	Unexplained	7,226	1,805.00	9,031	0.02			
Total	'	798,054	193,024	991,078	2.28			
	metres (million)	.,	- , -	43.54				

Table 19		ight trains by detailed cause category – 2004/05						
No	Category		Train delay	minutes				
		Passenger	Freight	Combined	Per 100 train			
101	Points failures	59,446	4,971	64,417	0.21			
102		104	165.00	269	0.00			
102	Problems with trackside signs, TSR boards	6,014	149.00					
103 104A	Level crossing failures  TSRs due to condition of track	0,014	149.00	6,163	0.02			
104A 104B	Track faults (including broken rails)	35,747	2,970.00	38,717	0.13			
1046 104C	Rolling contact fatigue	33,747 649	28.00	677	0.00			
105	Lineside structure defects (inc. weather impact)	4,932	344.00	5,276	0.00			
106	Other infrastructure	15,847	715.00	16,562	0.02			
108 107A	Possession over-run and related faults	15,047	4,897.00	19,904	0.03			
107A	Possession work left incomplete	6,444	607.00	7,05 l	0.07			
1076	· · · · · · · · · · · · · · · · · · ·	344	13.00	357	0.02			
108	Mishap - infrastructure causes  Animals on line	2,802	328.00	3,130	0.00			
110	External weather impact	50,951	3,106.00	54,057 11,272	0.18			
IIIA	Wheel slip due to leaf fall	10,389	883.00		0.04			
IIIB	Vegetation management failure	1,158	156.00	1,314	0.00			
112	Fires on Network Rail infrastructure	7,856	979.00	8,835	0.03			
150	Network Rail share of industry leaf fall/adhesion	30,808	438.00	31,246	0.10			
201	delays  Overhead line/third rail faults	17111	700.00	17011	0.06			
301A		17,111 24,687	935.00	17,811 25,622	0.08			
301A 301B	Signal failures Track circuit failures				0.08			
301B 302A		78,738 35,297	3,069.00 1,568.00	81,807 36,865	0.27			
302A 302B	Signalling system and power supply failures	3,303	1,366.00	3,452	0.12			
302B 303	Other signal equipment failures		35.00	1,094	0.00			
303	Telephone failures	1,039	801.00	1,094	0.00			
	Cable faults (signalling and telecoms)	974			0.04			
304A 305	Change of aspects - no fault found  Track circuit failures - leaf fall	0	2.00	976 26	0.00			
401		25,700	915.00	26,615	0.00			
402	Bridge strikes	· · · · · · · · · · · · · · · · · · ·	1,325.00		0.09			
403	External infrastructure damage - vandalism/theft	19,168 2,388	43.00	20,493	0.07			
403	External level crossing/road incidents (not bridges)	2,300	43.00	2,431	0.01			
501	Network Rail operations responsibility	77,558	4,401.00	81,959	0.27			
502A	Train planning	20,849	9,435.00	30,284	0.10			
502B	Network Rail commercial: other	264	980.00	1,244	0.00			
502C	Network Rail commercial: dispute take-back	72,371	2,465.00	74,836	0.24			
503	External fatalities and trespass	27,649	2,369.00	30,018	0.10			
504	External police on line/security alerts	2,254	114.00	2,368	0.01			
505	External fires	7,532	343.00	7,875	0.03			
506	External other	9,687	1,122.00	10,809	0.04			
601	Unexplained	6,834	327.00	7,161	0.02			
Total	·	694,811	51,873	746,684	2.44			
	metres (million)		·	30.56				

Table 20		freight trains by detailed cause category – 2004/05						
No	Category		Train delay	minutes				
		Passenger	Freight	Combined	Per 100 train km			
101	Points failures	37,976	677	38,653	0.12			
102	Problems with trackside signs, TSR boards	449	4.00	453	0.00			
103	Level crossing failures	5,787	62.00	5,849	0.02			
104A	TSRs due to condition of track	374	39.00	413	0.00			
104B	Track faults (including broken rails)	29,826	229.00	30,055	0.10			
104C	Rolling contact fatigue	58	-	58	0.00			
105	Lineside structure defects (inc. weather impact)	1,429	-	1,429	0.00			
106	Other infrastructure	14,666	717.00	15,383	0.05			
107A	Possession over-run and related faults	17,140	874.00	18,014	0.06			
107B	Possession work left incomplete	4,486	55.00	4,541	0.01			
108	Mishap - infrastructure causes	1,866	90.00	1,956	0.01			
109	Animals on line	3,031	47.00	3,078	0.01			
110	External weather impact	36,220	244.00	36,464	0.12			
IIIA	Wheel slip due to leaf fall	11,387	40.00	11,427	0.04			
IIIB	Vegetation management failure	385	-	385	0.00			
112	Fires on Network Rail infrastructure	6,943	34.00	6,977	0.02			
150	Network Rail share of industry leaf fall/adhesion	16,430	88.00	16,518	0.05			
	delays	0.4.00.4	105.00	25.251				
201	Overhead line/third rail faults	24,926	125.00	25,051	0.08			
301A	Signal failures	23,869	339.00	24,208	0.08			
301B	Track circuit failures	54,955	1,023.00	55,978	0.18			
302A	Signalling system and power supply failures	22,441	165.00	22,606	0.07			
302B	Other signal equipment failures	4,872	95.00	4,967	0.02			
303	Telephone failures	774	6.00	780	0.00			
304	Cable faults (signalling and telecoms)	2,359	16.00	2,375	0.01			
304A	Change of aspects - no fault found	437	6.00	443	0.00			
305	Track circuit failures - leaf fall	0	-	0				
401	Bridge strikes	30,298	532.00	30,830	0.10			
402	External infrastructure damage - vandalism/theft	11,782	126.00	11,908	0.04			
403	External level crossing/road incidents (not bridges)	3,629	43.00	3,672	0.01			
501	Network Rail operations responsibility	73,183	1,345.00	74,528	0.24			
502A	Train planning	33,985	3,695.00	37,680	0.12			
502B	Network Rail commercial: other	209	6.00	215	0.00			
502C	Network Rail commercial: dispute take-back	63,633	1,292.00	64,925	0.21			
503	External fatalities and trespass	57,522	723.00	58,245	0.19			
504	External police on line/security alerts	8,275	66.00	8,341	0.03			
505	External fires	3,264	102.00	3,366	0.01			
506	External other	9,512	4,314.00	13,826	0.04			
601	Unexplained	27,704	264.00	27,968	0.09			
Total	<u> </u>	646,082	17,483	663,565	2.12			
Train kilo	metres (million)			31.28				

Table 21	South East Wessex delays to passenger and	freight trains by detailed cause category – 2004/05					
No	Category						
		Passenger	Freight	Combined	Per 100 train km		
101	Points failures	56,282	3,479	59,761	0.14		
102	Problems with trackside signs, TSR boards	1,751	53.00	1,804	0.00		
103	Level crossing failures	12,179	581.00	12,760	0.03		
104A	TSRs due to condition of track	0	-	0	-		
104B	Track faults (including broken rails)	49,365	3,173.00	52,538	0.12		
104C	Rolling contact fatigue	771	5.00	776	0.00		
105	Lineside structure defects (inc. weather impact)	821	39.00	860	0.00		
106	Other infrastructure	15,216	984.00	16,200	0.04		
107A	Possession over-run and related faults	35,110	3,518.00	38,628	0.09		
107B	Possession work left incomplete	180	16.00	196	0.00		
108	Mishap - infrastructure causes	2,520	21.00	2,541	0.01		
109	Animals on line	4,387	35.00	4,422	0.01		
110	External weather impact	34,124	2,157.00	36,281	0.09		
IIIA	Wheel slip due to leaf fall	8,815	694.00	9,509	0.02		
IIIB	Vegetation management failure	1,350	55.00	1,405	0.00		
112	Fires on Network Rail infrastructure	11,195	323.00	11,518	0.03		
150	Network Rail share of industry leaf fall/adhesion	18,989	229.00	19,218	0.05		
	delays	,		, , <u>, , , , , , , , , , , , , , , , , </u>			
201	Overhead line/third rail faults	15,862	550.00	16,412	0.04		
301A	Signal failures	34,109	2,598.00	36,707	0.09		
301B	Track circuit failures	154,432	6,081.00	160,513	0.38		
302A	Signalling system and power supply failures	37,303	2,958.00	40,261	0.09		
302B	Other signal equipment failures	2,839	141.00	2,980	0.01		
303	Telephone failures	1,001	234.00	1,235	0.00		
304	Cable faults (signalling and telecoms)	4,615	1,861.00	6,476	0.02		
304A	Change of aspects - no fault found	413	-	413	0.00		
305	Track circuit failures - leaf fall	0		0	-		
401	Bridge strikes	15,741	365.00	16,106	0.04		
402	External infrastructure damage - vandalism/theft	13,095	822.00	13,917	0.03		
403	External level crossing/road incidents (not bridges)	4,029	161.00	4,190	0.01		
501	Network Rail operations responsibility	61,094	3,656.00	64,750	0.15		
502A	Train planning	42,839	14,910.00	57,749	0.14		
502B	Network Rail commercial: other	129	35.00	164	0.00		
502C	Network Rail commercial: dispute take-back	64,618	6,079.00	70,697	0.17		
503	External fatalities and trespass	31,462	1,904.00	33,366	0.08		
504	External police on line/security alerts	2,595	72.00	2,667	0.01		
505	External fires	941	8.00	949	0.00		
506	External other	5,353	488.00	5,841	0.00		
601	Unexplained	4,261	595.00	4,856	0.01		
Total	5.155 piantoa	749,786	58,880	808,666	1.90		
	metres (million)	,,,	20,000	42.54	1.70		

Table 22	Western delays to passenger and freight tra	· · · · · · · · · · · · · · · · · · ·						
No	Category		Train delay minutes					
		Passenger	Freight	Combined	Per 100 train km			
101	Points failures	111,900	30,671	142,571	0.22			
102	Problems with trackside signs, TSR boards	7,580	519.00	8,099	0.01			
103	Level crossing failures	16,841	2,378.00	19,219	0.03			
104A	TSRs due to condition of track	17,346	3,136.00	20,482	0.03			
104B	Track faults (including broken rails)	86,615	19,721.00	106,336	0.16			
104C	Rolling contact fatigue	2,028	1,068.00	3,096	0.00			
105	Lineside structure defects (inc. weather impact)	8,353	2,341.00	10,694	0.02			
106	Other infrastructure	36,745	3,767.00	40,512	0.06			
107A	Possession over-run and related faults	26,391	10,939.00	37,330	0.06			
107B	Possession work left incomplete	437	68.00	505	0.00			
108	Mishap - infrastructure causes	8,973	7,455.00	16,428	0.03			
109	Animals on line	26,934	1,539.00	28,473	0.04			
110	External weather impact	48,145	8,420.00	56,565	0.09			
IIIA	Wheel slip due to leaf fall	7,731	634.00	8,365	0.01			
IIIB	Vegetation management failure	1,839	162.00	2,001	0.00			
112	Fires on Network Rail infrastructure	1,379	478.00	1,857	0.00			
150	Network Rail share of industry leaf fall/adhesion delays	13,179	243.00	13,422	0.02			
201	Overhead line/third rail faults	819	18.00	837	0.00			
301A	Signal failures	53,733	8,125.00	61,858	0.09			
301B	Track circuit failures	143,533	23,373.00	166,906	0.26			
302A	Signalling system and power supply failures	29,904	5,733.00	35,637	0.05			
302B	Other signal equipment failures	16,660	3,267.00	19,927	0.03			
303	Telephone failures	10,253	545.00	10,798	0.02			
304	Cable faults (signalling and telecoms)	23,641	12,323.00	35,964	0.06			
304A	Change of aspects - no fault found	4,569	419.00	4,988	0.01			
305	Track circuit failures - leaf fall	0	-	0	-			
401	Bridge strikes	66,401	9,108.00	75,509	0.12			
402	External infrastructure damage - vandalism/theft	26,162	3,707.00	29,869	0.05			
403	External level crossing/road incidents (not bridges)	17,769	5,145.00	22,914	0.04			
501	Network Rail operations responsibility	77,448	12,932.00	90,380	0.14			
502A	Train planning	105,974	46,620.00	152,594	0.23			
502B	Network Rail commercial: other	464	107.00	571	0.00			
502C	Network Rail commercial: dispute take-back	36,658	13,155.00	49,813	0.08			
503	External fatalities and trespass	79,347	7,724.00	87,071	0.13			
504	External police on line/security alerts	7,626	639.00	8,265	0.01			
505	External fires	4,497	284.00	4,781	0.01			
506	External other	33,378	4,852.00	38,230	0.06			
601	Unexplained	16,483	1,813.00	18,296	0.03			
Total		1,177,735	253,428	1,431,163	2.19			
	metres (million)		·	65.37				

# Further breakdown of performance data

Table 23	Delays to individual operators – 2004/05			
			Train kilometres	Delay per
		Delay minutes	(million)	100 train km
	passenger operators			
EA	Transpennine Express	305,692	14.10	2.17
EB	One	623,966	29.38	2.12
ED	Northern Rail / ATN / FNW *	1,142,932	40.44	2.83
HA	First Scotrail	716,784	36.53	1.96
HB	Great North Eastern Railway	249,895	17.99	1.39
HE	Mersey Rail Electrics 2002	67,154	5.53	1.21
HF	Virgin West Coast Trains	595,169	18.25	3.26
HG	Central Trains	953,793	28.00	3.41
HH	Virgin Cross Country Trains	604,551	26.85	2.25
HI	Midland Mainline	175,101	10.51	1.67
HJ	First Great Western	293,463	16.15	1.82
HK	Wessex Trains	181,614	10.84	1.68
HL	Arriva Trains Wales	344,707	19.21	1.79
HM	Heathrow Express	33,678	1.57	2.15
HN	First Great Western Link	333,734	12.70	2.63
НО	Chiltern Railways	101,145	8.10	1.25
HP	Silverlink	249,166	8.84	2.82
HQ	WAGN	125,476	11.55	1.09
HT	c2c Rail	54,081	5.75	0.94
HU	South Eastern Trains	612,155	27.63	2.22
HV	Gatwick Express	35,975	2.37	1.52
HW	Southern Trains	596,047	25.65	2.32
HX	Thameslink Rail	224,940	10.87	2.07
HY	South West Trains	650,646	35.84	1.82
GA	Eurostar (UK)	12,799	0.85	1.50
PF	Hull Trains	14,219	1.03	1.39
PG	Nexus	13,002	2.30	0.57
Total		9,311,884	428.83	2.17
of which	franchised operators	9,238,186	423.09	2.18
Applicable :	freight operators			
WA	English Welsh and Scottish Railway	1,350,002	31.25	4.32
DB	Freightliner Ltd	396,665	7.61	5.22
D2	Freightliner Heavyhaul	242,111	4.57	5.30
FM	Rail Express Systems	276	0.04	0.72
PE	GB Rail Freight	36,161	0.82	4.41
XH	Direct Rail Services	31,848	1.24	2.57
Total		2,057,063	45.52	4.52
Combined	total for all applicable operators	11,368,947	474.35	2.40

<sup>\*</sup> Note: during the year the new Northern Trains franchise commenced operation, largely comprising services previously operated by Arriva Trains Northern and First North Western. The figure shown combines the results of Northern Trains with those for Arriva Trains Northern and First North Western.

Table 24 Delay per 100 train kilometres to individual operators – 2004/05															
		Period F													
Appl	icable passenger enemters	l	2	3	4	5	6	7	8	9	10	11	12	13	avg
Appi	icable passenger operators														
EA	Transpennine Express	2.04	2.13	1.99	1.83	2.44	2.26	2.12	2.90	2.47	2.14	2.13	1.87	1.80	2.17
EB	One	2.22	1.53	3.33	2.25	2.74	1.87	2.24	2.38	2.14	1.39	1.33	2.31	1.79	2.12
ED	Northern Rail / ATN / FNW *	2.61	2.58	2.61	2.46	3.40	3.26	2.85	3.73	3.56	3.04	2.61	2.14	1.99	2.83
НА	First Scotrail	1.62	1.80	1.95	1.52	2.94	1.56	1.73	2.48	2.11	1.98	2.71	1.62	1.53	1.96
НВ	Great North Eastern Railway	1.34	1.32	1.55	1.09	2.11	1.04	1.33	1.46	1.40	1.48	1.39	1.28	1.27	1.39
HE	Merseyrail Electrics 2002	0.98	1.07	0.83	1.95	1.49	1.47	1.41	1.16	1.32	1.36	1.04	0.84	0.86	1.21
HF	Virgin West Coast Trains	2.92	2.98	4.40	3.41	3.89	3.72	2.70	4.31	3.09	3.52	2.97	2.67	2.31	3.26
HG	Central Trains	2.79	2.76	3.69	3.43	4.00	3.54	3.51	4.96	4.21	3.17	2.74	2.89	2.32	3.41
НН	Virgin Cross Country Trains	1.99	2.12	2.50	2.33	2.83	2.45	2.06	2.89	2.17	2.07	2.09	1.78	2.03	2.25
Н	Midland Mainline	1.82	1.78	1.87	1.70	2.54	1.78	1.32	1.86	1.81	1.37	1.11	1.13	1.32	1.67
HJ	First Great Western	1.99	1.71	1.47	2.04	1.70	1.79	1.57	2.90	1.81	1.49	1.68	1.75	1.72	1.82
HK	Wessex Trains	1.58	1.53	1.42	1.88	1.60	1.56	1.48	2.37	1.89	1.66	1.48	1.58	1.79	1.68
HL	Arriva Trains Wales	1.37	1.53	1.99	1.86	2.19	1.95	1.81	2.61	1.84	1.52	1.64	1.44	1.62	1.79
НМ	Heathrow Express	2.89	2.00	1.81	1.50	2.34	3.40	1.83	2.47	2.10	1.90	1.48	1.56	2.63	2.15
HN	First Great Western Link	2.51	2.20	2.42	2.71	2.94	2.68	2.21	3.14	3.17	2.51	2.47	2.54	2.70	2.63
НО	Chiltern Railways	0.83	0.81	1.63	1.49	1.66	1.18	1.45	2.73	1.23	1.00	0.81	0.97	0.64	1.25
HP	Silverlink	2.96	2.62	4.40	3.83	3.06	2.97	2.40	3.82	2.76	1.79	1.75	2.22	1.95	2.82
HQ	WAGN	0.72	1.00	1.37	1.50	1.15	0.75	1.10	1.25	1.45	0.80	0.96	1.27	0.78	1.09
HT	c2c Rail	0.71	1.11	0.57	1.22	1.03	0.58	0.55	1.34	1.05	0.79	0.74	1.01	1.61	0.94
HU	South Eastern Trains	1.58	2.04	2.66	2.29	3.06	2.00	1.88	3.23	2.11	1.46	1.48	3.23	1.70	2.22
HV	Gatwick Express	1.66	1.75	2.05	1.06	1.31	1.00	1.28	1.72	1.57	1.31	1.90	1.73	1.43	1.52
$\overline{HW}$	Southern Trains	2.20	1.68	2.70	1.88	2.46	1.96	1.98	3.29	2.54	2.01	2.06	3.44	1.95	2.32
HX	Thameslink Rail	2.06	2.46	2.59	1.94	2.49	2.62	1.68	2.48	2.29	1.62	1.57	1.80	1.26	2.07
HY	South West Trains	3.02	2.30	1.52	1.51	2.48	1.55	1.55	2.35	2.09	1.30	1.20	1.36	1.31	1.82
GA	Eurostar (UK)	0.88	2.27	1.50	1.91	2.09	0.70	0.92	1.20	1.94	1.46	1.27	1.55	1.86	1.50
PF	Hull Trains	1.32	1.05	1.27	1.22	2.04	1.43	1.46	1.37	1.88	1.62	1.12	1.24	0.95	1.39
PG	Nexus	0.35	0.79	0.51	0.75	0.43	0.78	0.50	0.54	0.49	0.79	0.61	0.30	0.63	0.57
Tota		2.06	1.98	2.35	2.11	2.68	2.13	2.02	2.90	2.39	1.94	1.89	2.01	1.72	2.17
Appl	icable freight operators														
WA	English Welsh and Scottish Railway	3.66	3.83	4.89	4.08	4.89	3.66	3.95	5.44	4.39	4.86	4.44	4.55	3.80	4.32
DB	Freightliner Ltd	5.41	4.15	6.99	5.28	5.79	4.86	4.50	6.19	4.98	4.94	5.94	4.58	4.12	5.22
D2	Freightliner Heavyhaul	4.99	4.91	4.99	4.63	6.73	4.72	6.03	6.49	5.57	6.37	5.37	4.69	3.93	5.30
FM	Rail Express Systems	0.86	0.60	0.53	na	0.72									
PE	GB Rail Freight	4.07	4.03	7.68	3.79	5.00	3.50	3.09	4.94	5.02	4.12	3.78	3.89	5.08	4.4
XH	Direct Rail Services	2.00	1.86	5.62	1.52	3.05	2.16	1.96	2.78	2.51	2.74	3.10	1.82	2.41	2.57
Tota		4.03	3.92	5.30	4.25	5.15	3.91	4.18	5.59	4.58	4.97	4.75	4.49	3.86	4.52

<sup>\*</sup> Note: during the year the new Northern Trains franchise commenced operation, largely comprising services previously operated by Arriva Trains Northern and First North Western. The figure shown combines the results of Northern Trains with those for Arriva Trains Northern and First North Western.

Table 25	5 D	elay minutes	to all trains s	split by oper	ating route	and by four-	weekly perio	od – 2004/05	
Period	London North Eastern	London North Western	Scotland	SE Anglia	SE Kent	SE Sussex	SE Wessex	Western	National Total
PI	211,410	225,122	74,925	82,199	46,224	49,823	101,304	112,000	903,007
P2	188,941	213,593	73,640	62,074	51,946	37,915	75,670	93,683	797,462
P3	200,177	292,599	78,179	113,127	64,648	61,120	50,860	92,986	953,696
P4	182,168	257,118	54,732	88,037	64,503	35,781	54,074	119,642	856,055
P5	262,646	275,207	108,449	94,181	80,695	50,331	81,493	110,308	1,063,310
P6	183,372	268,200	62,032	68,209	54,152	42,209	55,338	103,811	837,323
P7	207,177	227,896	64,495	75,286	47,388	45,252	53,707	107,263	828,464
P8	261,488	321,919	86,930	83,530	80,339	71,169	80,145	169,093	1,154,613
P9	239,340	259,878	79,815	75,100	56,687	59,804	70,895	123,270	964,789
PIO	174,700	218,006	66,129	47,481	33,574	44,531	44,340	88,105	716,866
PII	179,384	215,168	103,310	52,734	43,964	48,207	43,545	106,052	792,364
PI2	181,203	195,241	70,640	83,426	78,336	79,295	48,272	101,776	838,189
PI3	145,322	156,777	60,463	65,694	44,228	38,128	49,023	103,174	662,809
Year total	2,617,328	3,126,724	983,739	991,078	746,684	663,565	808,666	1,431,163	11,368,947

Note:		
PΙ	Thursday 01 April 2004	- Saturday I May 2004
P2	Sunday 2 May 2004	- Saturday 29 May 2004
P3	Sunday 30 May 2004	- Saturday 26 June 2004
P <del>4</del>	Sunday 27 June 2004	- Saturday 24 July 2004
P5	Sunday 25 July 2004	- Saturday 21 August 2004
P6	Sunday 22 August 2004	- Saturday 18 September 2004
P7	Sunday 19 September 2004	- Saturday 16 October 2004
P8	Sunday 17 October 2004	- Saturday 13 November 2004
P9	Sunday 14 November 2004	- Saturday II December 2004
PI0	Sunday 12 December 2004	- Saturday 08 January 2005
PH	Sunday 09 January 2005	- Saturday 5 February 2005
PI2	Sunday 06 February 2005	- Saturday 5 March 2005
PI3	Sunday 6 March 2005	- Thursday 31 March 2005

### **Public Performance Measure (PPM)**

The PPM measure combines figures for punctuality and reliability into a single performance measure covering all scheduled services operated by franchised passenger operators.

PPM measures the performance of individual trains against their planned timetable for the day, and shows the percentage of trains "on time" compared to the total number of trains planned.

A train is defined as "on time" if it arrives at its planned destination station within five minutes (i.e. 4 minutes 59 seconds or less) of the planned arrival time. For long distance operators a criterion of arrivals within 10 minutes (i.e. 9 minutes 59 seconds or less) is used. Long distance operators include First Great Western, GNER, Midland Mainline, Virgin Cross Country and Virgin West Coast, together with the former Anglia inter-city services operated by ONE.

Table 26	Public Performance Measure nationally and by train operating comp	oany – 2004/05
Percentage of	trains arriving on time	
Applicable pas	ssenger operators	
EA	Transpennine Express	74.6%
EB	·	88.8%
ED	one Northern Rail / ATN / FNW *	84.6%
HA	ScotRail	83.1%
HB	Great North Eastern Railway	77.5%
HE	Mersey Rail Electrics 2002	94.2%
HF	Virgin West Coast Trains	72.1%
HG	Central Trains	73.1%
HH	Virgin Cross Country Trains	77.8%
HI	Midland Mainline	88.3%
HJ	First Great Western	79.6%
HK	Wessex Trains	85.4%
HL	Arriva Trains Wales	80.8%
HN	First Great Western Link	82.9%
НО	Chiltern Railway	92.5%
HP	Silverlink	84.2%
HQ	WAGN	89.3%
HT	C2C Rail	93.2%
HU	South Eastern Trains	84.2%
HV	Gatwick Express	84.7%
HW	Southern Trains	81.8%
HX	Thameslink Rail	83.9%
HY	South West Trains	81.4%
HZ	Island Line	97.3%
	Total (franchised passenger operators)	83.6%

<sup>\*</sup> Note: during the year the new Northern Trains franchise commenced operation, largely comprising services previously operated by Arriva Trains Northern and First North Western. The figure shown combines the results of Northern Trains with those for Arriva Trains Northern and First North Western.

# Section 2 – Asset failure

### Infrastructure incidents recorded for attribution of delay

The number of performance incidents in asset related categories is shown in this section. These incidents are recorded for the purpose of identifying the cause and responsibility of delays and cancellations, whilst providing valuable management information on the causes of and trends in delays and hence an indication of where to maintain or renew the network assets. The records do not seek to represent a catalogue of every single physical component or system failure occurring on the network.

Bridge strikes represent externally caused incidents (road vehicles hitting bridges), although Network Rail has some influence over prevention measures, and is able to mitigate the impact to either prevent or reduce the train delays arising.

#### **Network-wide totals**

Table 27	7 National Infrastructure incident	s recorded for de	elay attribution		
No	Category	2001/02	2002/03	2003/04	2004/05
		Number	Number	Number	Number
101	Points failures	10,240	10,844	9,802	8,769
103	Level crossing failures	2,808	3,050	2,794	2,725
104A	TSR's due to condition of track	2,945	4,078	3,860	3,158
104B	Track faults (including broken rails)	6,047	6,545	7,450	5,774
104C	Rolling contact fatigue	3,139	640	219	98
105	Lineside structure defects (including weather impact)	1,078	1,067	1,090	841
106	Other infrastructure	5,791	7,027	8,219	7,951
108	Mishap - infrastructure causes	214	203	308	369
112	Fires on Network Rail	426	424	513	282
201	infrastructure	1.742	1.547		1.401
201	Overhead line/third rail faults	1,743	1,547	1,475	1,601
301A	Signal failures	9,206	9,160	9,119	8,300
301B	Track circuit failures	10,900	10,668	9,935	9,226
302A	Signalling system and power supply failures	3,408	3,494	3,719	3,448
302B	Other signal equipment failures <sup>2</sup>	2,034	2,591	2,653	2,337
303	Telephone failures	922	1,008	994	1,060
304	Cable faults (signalling and telecoms)	515	423	535	445
304A	Change of aspects-no fault found	458	534	342	274
401	Bridge strikes <sup>3</sup>	1,626	1,912	2,009	1,888
	Total	63,500	65,215	65,036	58,546

Note: incidents are recorded for the attribution of delays and cancellations. In a small number of cases more than one incident will be created for the same physical incident, to reflect different phases of an incident or responsibilities for contractual delay attribution purposes. The impact on bridge strike incident numbers is noted below.

Prior year data has been updated to reflect current attribution of incidents. This has a particularly significant impact on the "other infrastructure" category, which is subject to significant late re-attribution. In previous years, figures for prior years were not updated.

- 1. The definition of the 201 category above was changed for 2003/04 to exclude weather-related incidents to avoid distortions in the figures caused by the coding of heat-related track and overhead line speed restrictions to a single code. The above figures now include this change in all four years shown.
- 2. The increase and subsequent decline recorded under category 302B above is largely accounted for by faults occurring with TPWS equipment. In 2004/05 this accounted for 829 in this category. This was a reduction from 1,105 in 2003/04. A further 61 TPWS incidents are included within the 301A category.
- 3. The number of bridge strike incidents created for attribution purposes (as shown above) tends to overstate the actual number of physical incidents causing delay by around 10-15%. This is due to the existence of duplicate incidents created for attribution purposes. In recent years, the need to split these incidents has reduced slightly. The underlying reduction in bridge strike incident numbers in 2004/05 should be 4% rather than 6% as implied from the figures shown above.

### Commentary

For most signalling categories, the number of asset failure incidents causing delay fell in 2004/05. Points failures were down by 11%, signal failures fell by 9%, whilst both track circuit failures and signalling system and power supply failures fell by 7%. The other minor categories of signalling faults also fell by 9%.

This is the second successive year with a significant reduction in the numbers of points and track circuit failures. Over two years, incident numbers for these two categories combined has fallen by 16%.

The number of track related incidents (categories 104a - c) fell by 22%. The rate of improvement for track faults (including broken rails) was also 22%, while TSRs due to condition of track fell by 18%.

The number of level crossing incidents fell by 2%. Fires starting on Network Rail infrastructure fell by 45%, after the increase of the previous year. After two years of increases, the underlying number of bridge strike incidents causing delay fell by 4%.

By contrast the number of traction power supply incidents (overhead line/third rail faults) increased by 9%.

# **8 Operating Routes**

## London North Eastern

Table 28	London North Eastern infrastructure	incidents record	ed for delay attri	bution	
No	Category	2001/02	2002/03	2003/04	2004/05
	<u> </u>	Number	Number	Number	Number
101	Points failures	1,991	2,376	2,037	1,697
103	Level crossing failures	1,005	1,146	899	824
104A	TSR's due to condition of track	1,465	1,950	2,118	1,550
104B	Track faults (including broken rails)	1,521	1,723	1,911	1,732
104C	Rolling contact fatigue	770	161	86	9
105	Lineside structure defects (including weather impact)	340	333	403	247
106	Other infrastructure	1,475	1,996	2,400	2,754
108	Mishap - infrastructure causes	42	43	101	216
112	Fires on Network Rail infrastructure	46	33	50	20
201	Overhead line/third rail faults <sup>1</sup>	278	274	342	361
301A	Signal failures	2,008	1,979	1,791	1,819
301B	Track circuit failures	1,877	2,206	1,577	1,386
302A	Signalling system and power supply failures	981	971	1,036	765
302B	Other signal equipment failures <sup>2</sup>	624	802	819	671
303	Telephone failures	344	375	350	351
304	Cable faults (signalling and telecoms)	158	119	203	114
304A	Change of aspects-no fault found	74	59	47	60
401	Bridge strikes	342	391	388	457
	Total	15,341	16,937	16,558	15,033

### London North Western

Table 29	London North Western infrastructu	re incidents reco	rded for delay at	tribution	
No	Category	2001/02	2002/03	2003/04	2004/05
		Number	Number	Number	Number
101	Points failures	2,746	2,803	2,757	2,328
103	Level crossing failures	411	385	353	345
104A	TSR's due to condition of track	754	1,004	830	950
104B	Track faults (including broken rails)	1,503	1,566	1,904	1,373
104C	Rolling contact fatigue	493	202	74	29
105	Lineside structure defects (including	319	268	255	267
	weather impact)				
106	Other infrastructure	1,970	2,643	2,943	2,425
108	Mishap - infrastructure causes	27	33	63	32
112	Fires on Network Rail infrastructure	88	76	72	49
201	Overhead line/third rail faults <sup>1</sup>	513	414	342	492
301A	Signal failures	2,404	2,473	2,501	2,159
301B	Track circuit failures	3,049	2,683	2,806	2,685
302A	Signalling system and power supply failures	816	782	865	910
302B	Other signal equipment failures <sup>2</sup>	382	446	460	511
303	Telephone failures	115	140	112	117
304	Cable faults (signalling and telecoms)	189	158	129	112
304A	Change of aspects-no fault found	105	149	118	101
401	Bridge strikes	472	558	529	477
	Total	16,356	16,783	17,113	15,362

### Scotland

Table 30	Scotland infrastructure incidents reco	orded for delay at	tribution		
No	Category	2001/02	2002/03	2003/04	2004/05
		Number	Number	Number	Number
101	Points failures	1,243	1,116	1,048	1,071
103	Level crossing failures	192	237	231	276
10 <del>4</del> A	TSR's due to condition of track	210	194	146	110
104B	Track faults (including broken rails)	561	494	417	401
104C	Rolling contact fatigue	783	159	15	15
105	Lineside structure defects (including	138	218	139	174
	weather impact)				
106	Other infrastructure	638	333	301	244
108	Mishap - infrastructure causes	8	10	12	23
112	Fires on Network Rail infrastructure	4	2	0	0
201	Overhead line/third rail faults <sup>1</sup>	436	287	199	212
301A	Signal failures	1,400	1,304	1,403	1,265
301B	Track circuit failures	1,308	1,207	1,032	1,043
302A	Signalling system and power supply failures	338	325	320	361
302B	Other signal equipment failures <sup>2</sup>	198	241	300	289
303	Telephone failures	96	137	113	145
304	Cable faults (signalling and telecoms)	13	9	11	26
304A	Change of aspects-no fault found	3	30	3	4
401	Bridge strikes	135	141	206	146
	Total	7,704	6,444	5,896	5,805

### South East Anglia

Table 31	South East Anglia infrastructure incid	ents recorded fo	r delay attributio	n	
No	Category	2001/02	2002/03	2003/04	2004/05
		Number	Number	Number	Number
101	Points failures	777	892	728	618
103	Level crossing failures	358	431	436	403
104A	TSR's due to condition of track	9	410	332	305
104B	Track faults (including broken rails)	622	665	850	663
104C	Rolling contact fatigue	641	60	12	4
105	Lineside structure defects (including	36	48	44	28
	weather impact)				
106	Other infrastructure	381	484	486	662
108	Mishap - infrastructure causes	17	12	19	17
112	Fires on Network Rail infrastructure	19	22	23	9
201	Overhead line/third rail faults	279	314	363	294
301A	Signal failures	732	856	776	569
301B	Track circuit failures	965	921	921	797
302A	Signalling system and power supply failures	330	367	317	381
302B	Other signal equipment failures <sup>2</sup>	105	140	144	141
303	Telephone failures	111	112	143	129
304	Cable faults (signalling and telecoms)	11	10	21	21
304A	Change of aspects - no fault found	10	35	48	21
401	Bridge strikes	109	115	133	142
	Total	5,512	5,894	5,796	5,20 <del>4</del>

### South East Kent

Table 32	South East Kent infrastructure incide	nts recorded for	delay attribution		
No	Category	2001/02	2002/03	2003/04	2004/05
		Number	Number	Number	Number
101	Points failures	615	712	578	605
103	Level crossing failures	74	119	101	110
104A	TSR's due to condition of track	0	I	0	0
104B	Track faults (including broken rails)	320	355	392	300
104C	Rolling contact fatigue	26	25	2	14
105	Lineside structure defects (including	21	37	19	20
	weather impact)				
106	Other infrastructure	183	253	349	314
108	Mishap - infrastructure causes	20	24	19	9
112	Fires on Network Rail infrastructure	56	65	85	42
201	Overhead line/third rail faults <sup>1</sup>	103	115	76	80
301A	Signal failures	470	501	625	483
301B	Track circuit failures	774	790	787	647
302A	Signalling system and power supply failures	252	351	308	244
302B	Other signal equipment failures <sup>2</sup>	93	134	149	89
303	Telephone failures	27	19	33	28
304	Cable faults (signalling and telecoms)	62	61	49	54
304A	Change of aspects-no fault found	70	58	19	21
401	Bridge strikes	125	174	131	128
	Total	3,291	3,794	3,722	3,188

### South East Sussex

Table 33	South East Sussex infrastructure incidents recorded for delay attribution							
No	Category	2001/02	2002/03	2003/04	2004/05			
		Number	Number	Number	Number			
101	Points failures	574	581	512	411			
103	Level crossing failures	153	140	161	131			
104A	TSR's due to condition of track	0	0	1	10			
104B	Track faults (including broken rails)	204	152	178	145			
104C	Rolling contact fatigue	29	I	0	2			
105	Lineside structure defects (including weather impact)	18	9	13	П			
106	Other infrastructure	233	152	178	208			
108	Mishap - infrastructure causes	24	10	16	13			
112	Fires on Network Rail infrastructure	76	83	94	64			
201	Overhead line/third rail faults <sup>1</sup>	68	59	54	53			
301A	Signal failures	681	494	506	471			
301B	Track circuit failures	535	490	478	396			
302A	Signalling system and power supply failures	159	158	200	162			
302B	Other signal equipment failures <sup>2</sup>	103	133	50	79			
303	Telephone failures	24	19	22	22			
304	Cable faults (signalling and telecoms)	19	13	23	17			
304A	Change of aspects - no fault found	57	66	15	14			
401	Bridge strikes	94	68	175	100			
	Total	3,051	2,628	2,676	2,309			

### South East Wessex

Table 34	South East Wessex infrastructure in	cidents recorded	for delay attribu	tion	
No	Category	2001/02	2002/03	2003/04	2004/05
		Number	Number	Number	Number
101	Points failures	730	834	629	696
103	Level crossing failures	225	214	251	235
104A	TSR's due to condition of track	3	0	0	0
104B	Track faults (including broken rails)	434	541	816	498
104C	Rolling contact fatigue	4	7	2	8
105	Lineside structure defects (including	56	46	28	15
	weather impact)				
106	Other infrastructure	581	679	895	640
108	Mishap - infrastructure causes	54	22	35	15
112	Fires on Network Rail infrastructure	135	131	183	93
201	Overhead line/third rail faults <sup>1</sup>	54	69	90	102
301A	Signal failures	537	607	641	658
301B	Track circuit failures	969	1,034	1,054	1,172
302A	Signalling system and power supply failures	257	196	233	281
302B	Other signal equipment failures <sup>2</sup>	85	233	198	153
303	Telephone failures	35	34	37	30
304	Cable faults (signalling and telecoms)	41	17	34	41
304A	Change of aspects-no fault found	133	87	40	
401	Bridge strikes	123	161	142	120
	Total	4,456	4,912	5,308	4,768

### Western

Table 35	Western infrastructure incidents reco	orded for delay a	ttribution		
No	Category	2001/02	2002/03	2003/04	2004/05
		Number	Number	Number	Number
101	Points failures	1,564	1,530	1,513	1,343
103	Level crossing failures	390	378	362	401
104A	TSR's due to condition of track	504	519	433	233
104B	Track faults (including broken rails)	882	1,049	982	662
104C	Rolling contact fatigue	393	25	28	17
105	Lineside structure defects (including	150	108	189	79
	weather impact)				
106	Other infrastructure	330	487	667	704
108	Mishap - infrastructure causes	22	49	43	44
112	Fires on Network Rail infrastructure	2	12	6	5
201	Overhead line/third rail faults <sup>1</sup>	12	15	9	7
301A	Signal failures	974	946	876	876
301B	Track circuit failures	1,423	1,337	1,280	1,100
302A	Signalling system and power supply failures	275	344	440	344
302B	Other signal equipment failures <sup>2</sup>	444	462	533	404
303	Telephone failures	170	172	184	238
304	Cable faults (signalling and telecoms)	22	36	65	60
304A	Change of aspects-no fault found	6	50	52	42
401	Bridge strikes	226	304	305	318
	Total	7,789	7,823	7,967	6,877

# Section 3 – Asset quality

### **KPI 6 Network Rail Asset Stewardship Incentive Index (ASII)**

The ASII is an indication of how asset stewardship is being improved. It is an aggregated index comprising weighted components representing the asset stewardship of elements of track, signalling, electricity and plant and civil engineering.

The 2003/04 baseline and 2008/09 incentive target set by the ORR together with the actual result for 2004/05 are as follows:

Table 36 Asset stewards	hip incentive index			
Asset measure	Weightings	2002/03 level baseline level	2004/05 actuals	2008/09 incentive target
Track geometry	20%	1.11	0.90	1.00
Broken rails	15%	444	322	300
Level 2 exceedences	15%	1.2	0.91	0.9
Points/track circuit failures	10%	21,511	17,997	19,360
Signalling failures	20%	29,077	24,955	28,750
Electrification failures	10%	134	84	133
Structures and earthworks temporary speed restrictions	10%	152	75	100
ASII		1.20	0.90	0.90

#### Results

Results for the year 2004/05 and 2003/04 along with internal targets are as follows:

	2003/04 Actual	2003/04 Target	2004/05 Actual	2004/05 Target
ASII	1.091	0.960	0.898	1.063

The year 2004/05 has shown a considerable reduction in this index with improvements in all contributory indicators. This reflects the improvements in maintenance and the relatively benign weather in both winter and summer.

### Number of broken rails (MI)

#### **Definition**

A broken rail is a rail which, before removal from the track, has either a fracture through the full cross section (including broken welds), or a piece broken out of it exceeding 50mm in length.

### Reporting method

This is in accordance with the company procedures for measuring and reporting broken rails.

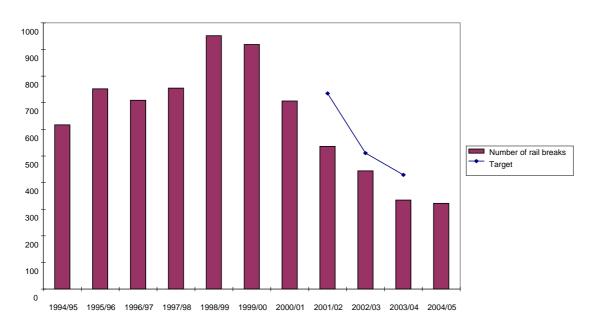
#### Results

Table 37 Number of b	oroken rails						
Operating Routes	2000/01	2001/02	2002/03	2003/04	CG	2004/05	CG
London North Eastern				77		101	
London North Western				88		61	
Scotland				35		32	
South East - Anglia				29		26	
South East - Kent				22		19	
South East - Sussex				[]		9	
South East - Wessex				30		43	
Western				42		31	
Network total	706	536	444	33 <del>4</del>	A2	322	A2
						See	
						"Regulatory	
						Target''	
Regulatory target (network)	765	735	705	675		below	
Independent Reporter						Ha	alcrow

Note: the previous years, are as follows: 617 (1994/95), 752 (1995/96), 709 (1996/97), 755 (1997/98), 952 (1998/99) and 919 (1999/00).

#### Figure 5 Broken rail performance against target

Note that the target below indicates the internal company target for meeting the overall regulatory target.



### Regulatory target

Reduction in the number of broken rails to no more than 300 per annum by 2005/06. No increase thereafter.

All infrastructure output measures are subject to statistical variability caused by random fluctuation and the accuracy of data measurement. This "noise" is expressed as a tolerance when comparing actual values in this Annual Return with any regulatory target; the assessment of the tolerance is based on an analysis of historical data. The statistical tolerance for the broken rail measure is assessed as  $\pm 13.7\%$  of the target.

### Reporting confidence

The procedure for broken rails is proven and robust, and this data could justify an A1 confidence grade but as we are still in the first year with the new functional organisation we agree that A2 is appropriate for this year.

### Commentary

Work has continued to reduce the number of broken rails with volumes of rerailing and renewals being maintained and improved rail management, particularly inspection equipment and procedures and the increased volume of grinding being delivered on the network.

The national total shows a reduction of 12 from 334 in 2003/04 to 322 in 2004/05. This reduction was not reflected in all Areas with a number showing an increase in the number of breaks. These increases are most evident in Areas which have shown significant changes in traffic, particularly those relating to coal freight imports through east coast ports.

Initiatives that have been introduced over recent years to reduce broken rails continued with rerailing and volumes similar to previous years since Hatfield.

Greater use has been made of improved ultrasonic test procedures and equipment utilising the Sperry roller search unit which provides improved deflection capabilities by providing near full head coverage.

Additional ultrasonic inspection has been undertaken using the Sperry roller search unit fitted to vehicles operating on main routes on the network. These trains and one road vehicle fitted with Sperry equipment are now in regular use on the network providing many hundreds of miles of testing additional to the standard pedestrian inspection programme.

### Rail defects (M2)

#### Definition

A defective rail is a rail that has any fault requiring remedial action (repair or replacement) to make it fit for purpose in accordance with RT/CE/S/103 and other Network Rail standards. This measure is reported split between isolated defects (i.e. welds, switches and crossings, etc) and continuous defects (i.e. corrosion, corrugations, etc).

### Reporting method

See Commentary below.

#### Results for 2004/05

Table 38 Numb	per of isolated	rail defects						
Type of defect	2001/02 year end	2002/03 year end	2003/04 year end		New defects detected 2004/05	Weld repairs / defects removed 2004/05	Defects remaining at 2004/05 year end	CG
Rail ends	1,670	1,196	1,358	-105	1667	1774	1146	
Welds position	1,873	2,889	3,735	407	4401	4335	4208	
Midrail	25,705	26,440	21,832	-4983	21655	18530	19994	
Switches and Crossings	2,773	4,081	4,274	247	3762	3024	5259	
Incorrectly classified	1,637	338	82	134	50	95	171	
Total number	33,658	34,964	31,301	-4300	31535	27758	30778	В3
Independent Reporter							Hale	crow

_Table 39	d rail defects by	operating rout	e			
Operating Route	Defects discovered 2003/04	Defects removed / repaired 2003/04	Defects remaining at year end 2003/04	Defects discovered 2004/05	Defects removed / repaired 2004/05	Defects remaining at year end 2004/05
London North Eastern	8627	7757	6957	6587	6070	4403
London North Western	11203	9039	10540	10695	9922	10529
Scotland	3269	4419	6136	6396	4767	8268
South East - Anglia	4545	1669	814	1457	1557	516
South East - Kent	1078	924	437	700	746	403
South East - Sussex	436	842	182	256	357	75
South East - Wessex	435	427	187	527	428	221
Western	5119	6226	6048	4917	3857	6363
Network total	34712	31303	31301	31535	27758	30778

Table 40	Lengths of continuous rail defects										
	2001/02 year end	2002/03 year end	2003/04 year end	Net data correction 2004/05	New RCF defects detected 2004/05	New other defects detected 2004/05	Defective rail removed/ repaired 2004/05	Defective rail remaining at year end 2004/05			
Total length (yards)	1.781.718	1,731,185	2,042,032	+522,680	215,652	307,699	664,696	2,423,367			
Total length	, ,		, ,	,		·					
_(km)	1,629	1,583	1,867	+478	197	282	608	2,216			

Table 41 Lengths	of continuous r	ail defects by	operating rout	e (yards)		
Operating Route	Defects discovered 2003/04	Defects removed / repaired 2003/04	Defects remaining at year end 2003/04	Defects discovered 2004/05	Defects removed / repaired 2004/05	Defects remaining at year end 2004/05
London North Eastern	23201	32835	290721	73786	116614	396326
London North Western	136781	76307	423754	162189	215017	546275
Scotland	150470	191660	704457	107543	102649	753221
South East - Anglia	43365	66803	95047	38369	40164	113809
South East - Kent	21969	52504	165430	11514	18779	165909
South East - Sussex	14849	27925	68185	45384	49739	63746
South East - Wessex	5934	19158	114924	17570	12150	110226
Western	72523	131368	179514	66996	109584	273855
Network total	469093	598560	2042032	523351	664696	2423367

### Regulatory target

There is no regulatory target for this measure.

### Reporting confidence

Although broadly we believe these systems justify confidence grading at B3, problems with incorporating data from former infrastructure maintenance contract systems has meant a greater than 10% data correction has been required to be made to the length of continuous rail defects in some territories (London North Eastern, London North Western and Western) and we are therefore obliged to rate these at B4.

#### Commentary

Rail defect reporting continues to be sourced from the pre-existing contractors' databases that have been adapted when maintenance was transferred in-house over the last year. The number of, and variations between, these databases have continued to lead to logistical problems with defect reporting which results in inconsistencies in the classification and mapping of the defective rail data to the central Raildata reporting system.

Raildata was upgraded in 2003/04 and has been used as the central system for defect reporting in 2004/05. Data from the former contractors' databases is uploaded automatically and regularly into this central system, which is a more robust process than the former method. Inconsistencies still remained where pre-existing contractors databases had a range of classifications for similar defects to drive defect management and removal rather than just for the purposes of reporting into Raildata. In some cases modifications to the contractors' existing systems to improve data quality and consistency were overtaken by the transfer of all maintenance in-house. The data correction to last year's figures shows a significant increase in the reported continuous defects. It is believed that completion of remedial action is not being properly recorded or updated on Raildata in some areas, with the result that the recorded defects remaining on Raildata are higher than in reality.

The roll out of rail grinding has continued in order to improve and maintain both transverse and longitudinal profiles which is the principal treatment for the management of rolling contact fatigue including small squats. New equipment has been procured to supplement the existing grinding fleet. Three large 64 stone machines are now being operated out of possession as a slow moving train in order to increase productivity. In addition to this the existing 16 stone and two medium sized 32 stone machines continue to work in dedicated possessions to grind plain line.

In addition to the plain line grinding fleet five specialised 20 stone machines were purpose-built to enable the transverse and longitudinal profile of switches and crossings (S&C) rail components to be better maintained in order to reduce the initiation and growth of surface defects such as rolling contact fatigue (RCF) and squats.

More widespread use of Sperry pedestrian and train-based equipment has been introduced to increase the defect detection capabilities and improve the management of RCF sites without the need for widespread rerailing based on surface crack length.

Individual or isolated and continuous defects continue to be reported directly from the pre-existing infrastructure maintenance contract databases that have been transferred in-house.

In many existing contractors' systems continuous defects, such as RCF, are recorded in order to drive inspection and removal timescales rather than to directly reflect the actual condition of the rail. For instance new rail installed in a site to replace rail removed for RCF is, in some cases, entered as light rolling contact fatigue in order to drive the increase in frequency of inspection on the site required by the standard. This has the net effect that in some cases rerailing does not lead to a reduction in the overall volume of RCF.

Although the volume of grinding being used on the network has increased significantly the trains are being used to maintain the required transverse and longitudinal profile of the rail and not to remove RCF.

Maintaining the required transverse and longitudinal profile has been shown to control the initiation and growth of surface defects but will not initially remove existing defects unless they are very shallow and it will take many cycles for deeper defects to be removed completely.

Continuous defects such as RCF continue to be managed and reported under the category of defect prior to grinding. RCF defects are not reported through Raildata.

Now that maintenance has been brought fully in-house work is progressing to develop a new purpose built rail defect reporting and management system 'Rail Defect Tracker' to replace the varied pre-existing contractors system with a central web based defect management system available to all Areas on the network. This has been designed and built to provide a consistent database able to record broken and defective rails found visually, by pedestrian non-destructive testing methods or by train based systems including continuous defects such as RCF.

### Track geometry - national standard deviation data (M3)

#### Definition

The purpose of this measure is to identify and record track geometry condition and trends. This section summarises the overall track geometry quality results, as expressed by the primary parameters, across the network.

During the assessment of track geometry quality by track recording vehicles the relative position of the rail running faces both vertically and horizontally are measured and recorded. These raw measurements against both these parameters are immediately subject to the application of high-pass wavelength filters which have the net effect of assessing the values over 35 and 70 metre chord lengths. The 35 metre values are determined for all routes whereas the 70 metre values are only applied to sections of route having a linespeed of 80 mph and above. While discrete imperfections or faults are identified and used for the front-line monitoring and correction of track geometry, the same measurements are rolled-up into standard deviation (SD) values reflecting the smoothness of track geometry over each and every eighth-mile length (220 yards) of track and route. These SD values, expressed in millimetres, provide a measure of track smoothness: lower SD values indicate less imperfections and therefore smoother track.

The resulting principal parameters of track geometry quality are 35m top (35 metre vertical position) and 35m line (35 metre horizontal alignment) and, for higher speed routes, 70m top and 70m line. For each of these parameters, target SD values have been set (within Railway Group Standards), based upon defined ranges of speeds, below which 50%, 90% and 100% respectively of recorded SDs over the length of route(s) are expected to fall.

The percentages of track across the network meeting these target SD values, and compared against these defining percentages, is shown in the following table:

#### Results

Table 42	Track geometry (standard deviations)											
		35m top		35m alignment		70m top		70m alignment				
	(vertical deviation)		(horizontal deviation)		(vertical deviation)		(horizontal deviation)					
Standards	50%	90%	100%	50%	90%	100%	50%	90%	100%	50%	90%	100%
Recorded at March 2001	61.3%	89.0%	96.9%	72.4%	92.7%	96.1%	60.7%	92.2%	95.4%	76.1%	95.0%	96.6%
Recorded at March 2002	62.4%	89.4%	97.1%	73.6%	93.1%	96.3%	61.9%	92.5%	95.6%	80.0%	96.0%	97.4%
Recorded at March 2003	61.9%	88.9%	97.0%	74.6%	93.6%	96.7%	62.2%	92.1%	95.2%	80.9%	96.2%	97.5%
Recorded at March 2004	62.4%	89.2%	97.0%	72.7%	92.9%	96.5%	63.6%	92.3%	95.3%	79.5%	95.8%	97.2%
Recorded at March 2005	66.0%	90.9%	97.7%	76.9%	94.1%	97.0%	67.7%	93.6%	96.2%	82.8%	96.9%	98.0%

Note: The higher figures show better track geometry.

### Regulatory target

The regulatory target is to maintain 2003/04 levels; no deterioration from this level during this control period.

### Reporting confidence

National SD data is reported to a high degree of accuracy consistent with the reporter's most recent assessment of A2 confidence limits applied to poor track geometry. Enhancements continue to be made to both the track recording systems and associated data storage at the newly-established Engineering Support Centre to underpin the high levels of confidence that can be attributed to this track geometry data.

### Commentary

Current performance as highlighted in the table demonstrates continuing improvement across all four primary parameters in the proportion of track meeting the 50% SD Target (commonly referred to as 'good' track geometry) and the 90% SD target (defined as 'satisfactory' or 'better' track geometry). Moreover it can be seen that there has been a return to the modest continuing improvement, following the levelling-off in the previous year, even though increases in route speed (and the resulting raising of individual target thresholds) continue to be made. This reflects improved stewardship of the network, and targeting of maintenance and renewals efforts possibly facilitated by bringing maintenance in-house. Also, the gradual recovery from the unstable underlying ground conditions, especially in the southern portion of the network, brought on by the abnormally hot and dry summer of 2003 is a contributory factor. During the year a net 260 track-kilometre of linespeed increases has been introduced by network upgrades, predominantly on the West Coast Main Line route and to the highest and most demanding speed bands.

Progress also continues to be made in the control and reduction of track geometry that lies outside the 100% target SD values. To enable a greater focus upon this aspect a composite poor track geometry parameter has been introduced (set out in the next section).

### Track geometry – poor track geometry (M3)

#### **Definition**

This measure is intended to focus upon the monitoring of track geometry over those lengths where current performance lies outside those SD values corresponding to 100% target and (for 35 metre parameters) maximum values. The measure highlights the proportion of track in the 'very poor' and 'super-red' track geometry categories.

Poor track geometry (PTG) normally reflects underlying poor component condition and undesirable geometrical features (severely constrained junction layouts and curve radius etc). It should be noted that they reflect a severe anomaly which not only is detected as a discrete (and immediately actionable) fault but dominates the SD result over an entire 220 yards length. Both these factors can often only be addressed by significant wholesale alterations, treatment of underlying ground and other environmental conditions, or renewal. Often they occur at or in the vicinity of major junctions and other switches and crossings, again compounding the scope and complexity of any effective remediation, and its high relative cost compared to the overall benefits achieved especially on tertiary routes.

The PTG results are presented in terms of the eight operating routes of the functional organisation which was established in May 2004. Previous years' figures have been recalculated accordingly.

#### Results

Table 43	Poor track geometry			
Operating Rou	te	2002/03	2003/04	2004/05
London North	Eastern		3.65%	2.82%
London North	Western		3.79%	3.19%
Scotland			2.61%	2.56%
South East Ang	lia		6.16%	4.33%
South East Ken	t		4.54%	3.50%
South East Suss	sex		4.79%	3.97%
South East We	ssex		4.93%	4.07%
Western			3.41%	2.56%
Network total		3.80%	3.85%	3.09%

Note: A lower number indicates better performance.

### Regulatory target

There is no regulatory target for this measure. There are internal targets, which enable a greater understanding of the drivers behind performance affecting, and progress made against, the second requirement of the previous section in seeking a reduction in the proportion of track where the target SD values for 100% are exceeded.

#### Reporting confidence

Poor track geometry is reported to A2 confidence limits, consistent with the reporter's most recent independent assessment of this measure.

### Commentary

These results show further detail of the modest but sustained and escalating improvements now being made in arresting and reversing any deteriorating trend in the proportion of poor track across the network. The PTG measure has detected significant improvements year on year across all Routes, with smaller improvements in Scotland, which still maintains the best performance in respect of track geometry figures. This again reflects the steady recovery from the worst effects of the abnormally hot and dry summer of 2003 upon the predominantly clay soils, especially to the south of the network.

### Track geometry - speed band data (M3)

This measure affords further breakdown of the national standard deviation data by four different ranges of linespeeds, reflecting different types of route. The results are summarised in terms of overall standard deviations (SD) for all routes within the given range of speeds (rather than as the proportions of route meeting the target values as before).

### **Terminology**

Separate charts, by speed range, are included showing the length (in kilometres of track) and distribution against the SD values (in 0.1 mm steps) for each parameter of 35 metre top, 35 metre line, 70 metre top and 70 metre line. The corresponding results for the previous year are shown as a dashed line on each chart. Displacement of the graph to the left, i.e. towards lower SD values, would be indicative of an improvement in track geometry, and vice versa. For further clarity the graphs have been smoothed using standard curve-fitting techniques on the raw data. Labelling indicates the proportions of track population lying within the 'Good' (50%), 'Satisfactory' (90%), 'Poor' (100%) and 'very poor' (in excess) quality categories.

For each parameter an overall standard deviation value has been determined from the SD values of every individual eighth-mile section. A reduction in overall SD indicates an improvement in track geometry quality, or smoothness, and vice versa. Table 44, on the next page, sets out these overall SD values for each of the selected linespeed ranges. This summary data supplements the chart displays and provides clarification where, as is sometimes the case, the difference between current and previous year graphs is difficult to see and interpret. Differences of less than 0.005 in overall SD should however, be viewed with caution being at the limits of accuracy of the measurement data.

It should be noted that for the 35 metre line in the 15-40 mph range the charts show a significant residual amount of track with an SD of 9.9 mm or more. In fact the raw data shows a second peak at 10 mm for both 35m parameters, though much less marked for top. This is statistically very unlikely and can with reasonable certainty be attributed to distortions to the measurement system caused by physical features (such as guard rails, high ballast) giving rise to false recordings, to which the alignment measurement system is particularly vulnerable. The impact of this distortion is exaggerated by its being confined to one end of the low-speed distribution graphs, if correctly distributed it would have little effect on their shape.

#### Results

Table 44	National t	rack geometry	summary				
Track recording parameter	Linespeed range (mph)	Overall SD at 31-03-01	Overall SD at 31-03-02	Overall SD at 31-03-03	Overall SD at 31-03-04	Overall SD at 31-03-05	Total track km in this linespeed range
35m top	15-125	3.058	3.031	3.036	3.023	2.933	29,698.5
	15-40	4.286	4.216	4.243	4.276	4.227	3,855.0
	45-70	3.340	3.309	3.340	3.338	3.245	11,905.7
	75-110	2.542	2.513	2.517	2.497	2.395	12,119.1
	115-125	1.830	1.799	1.819	1.808	1.728	1,818.7
35m line	15-125	2.058	2.033	1.965	1.981	1.893	29,698.5
	15-40	4.274	4.331	4.089	4.082	4.055	3,855.0
	45-70	2.065	2.061	2.009	2.042	1.944	11,905.7
	75-110	1.284	1.229	1.224	1.267	1.169	12,119.1
	115-125	0.925	0.837	0.832	0.895	0.788	1,818.7
70m top	80-125	3.287	3.261	3.263	3.208	3.064	10,396.2
	80-110	3.386	3.363	3.368	3.325	3.188	8,577.6
	115-125	2.493	2.424	2.482	2.489	2.428	1,818.7
70m line	80-125	2.383	2.234	2.191	2.226	2.071	10,396.2
	80-110	2.477	2.326	2.284	2.326	2.181	8,577.6
	115-125	1.594	1.478	1.476	1.609	1.488	1,818.7

Note: a lower number indicates better track geometry.

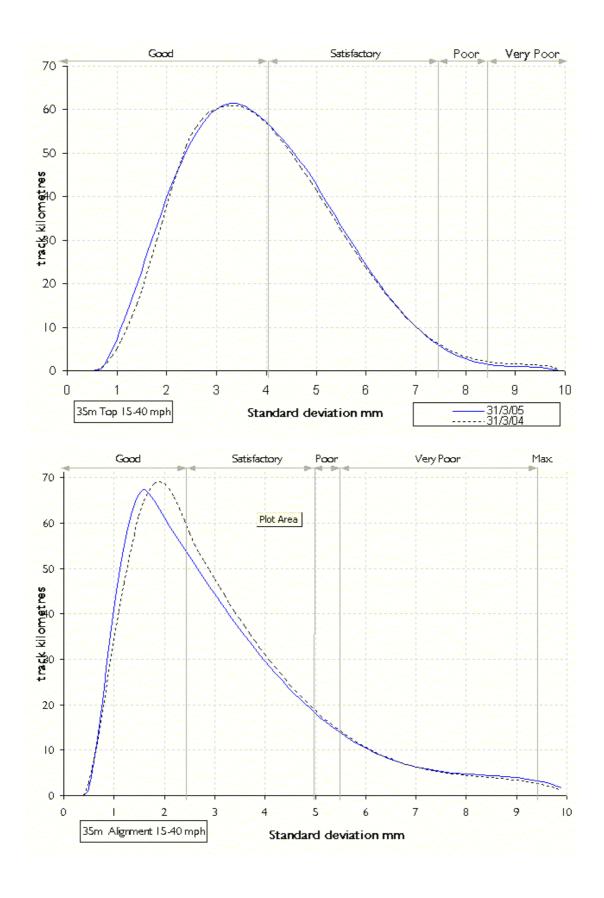
### Reporting confidence

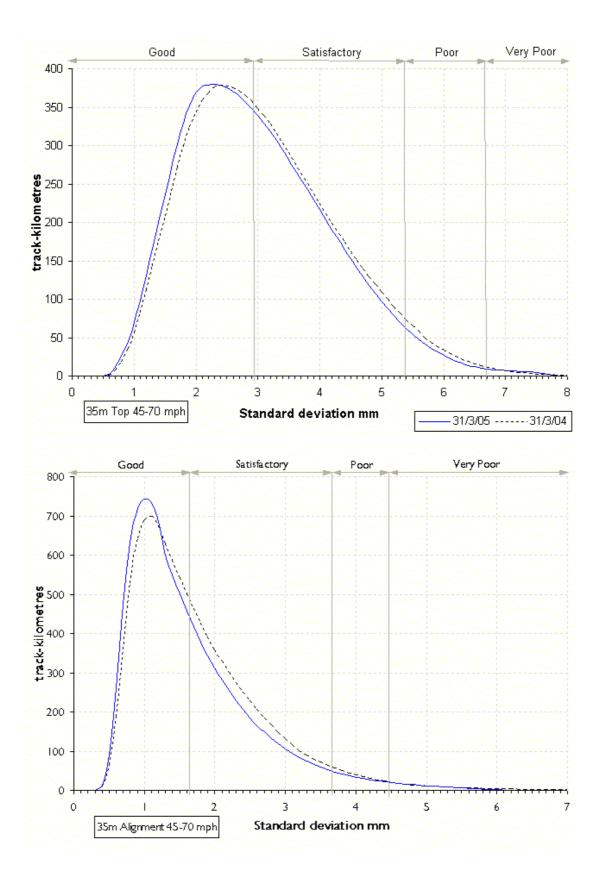
Reporting of speed band data is to a very high degree of accuracy, consistent with the reporter's most recent assessment of A2 confidence limits for the calculation of PTG. Overall SDs are calculated to better than 1% accuracy.

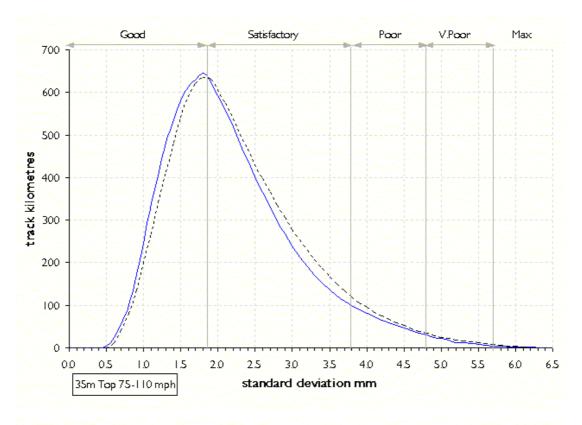
#### Commentary

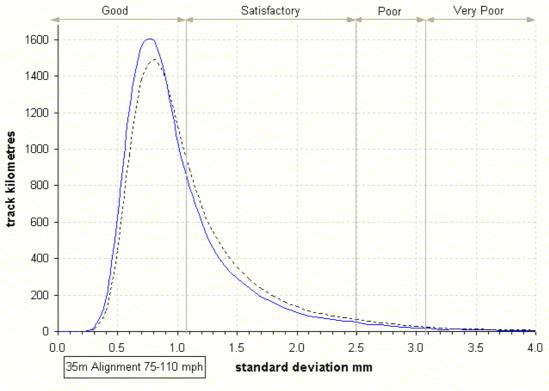
The general trend of overall improvement in track geometry smoothness across the network, as defined by standard deviation values, is clearly visible from these distribution charts and the supporting analysis. The only possible exceptions to this overall trend appear in 35m top at low speeds (15-40 mph) and 70m top at high speeds (115-125) mph. The higher peaks (and increased area under the graphs) for both of the two 115+ mph charts demonstrate the effect of a net transfer of 235 track-km into this speed range (of which 15 track-km have transferred from 75 mph or below) giving a 13% increase of track in the range. In the 40-115 mph linespeed ranges there is an apparent increase in track measured for alignment parameters only. This arises from a lower rejection rate for alignment measures this year compared to last year due to improvements on the track recording vehicles. For the 15-40 mph range these extra alignment measures appear mostly as high-SD values many of which, as discussed in the previous section, will arise from measurement distortion exaggerating the SD values. An overall increase of 99 track-km (83 in the 15-40 mph range) is reported compared to last year, but this "new" track is insufficient to have perceptible impact on the charts. However, along with the lower rejection rate for alignment measurements, it demonstrates the improvements being achieved in track recording techniques and processing.

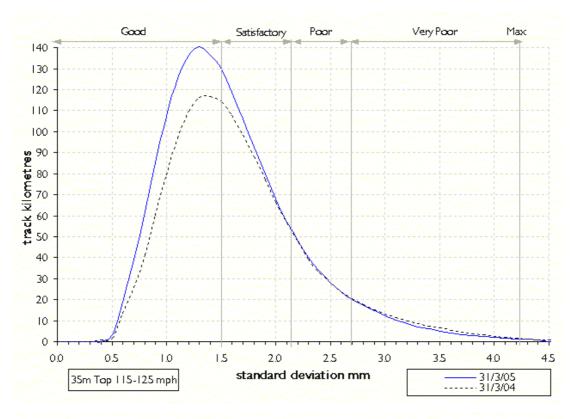
The reasons for the significant improvement in track geometry over the course of the year have been discussed in preceding sections. The most notable improvements are in track above 75 mph, particularly in the 70m parameters, which among other things highlights the success of high-speed track renewals.

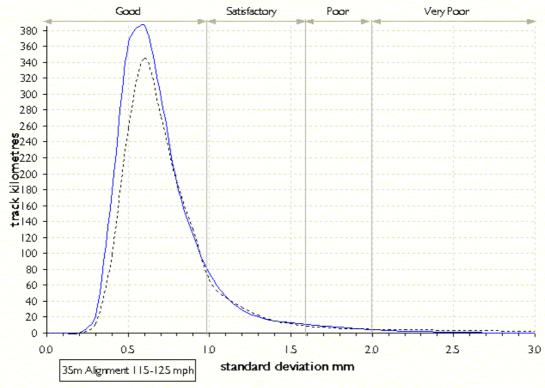


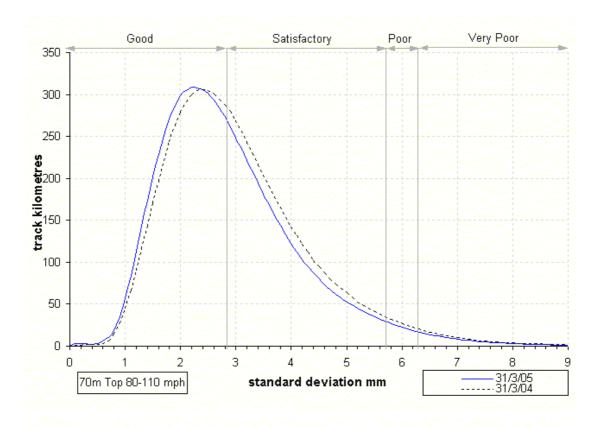


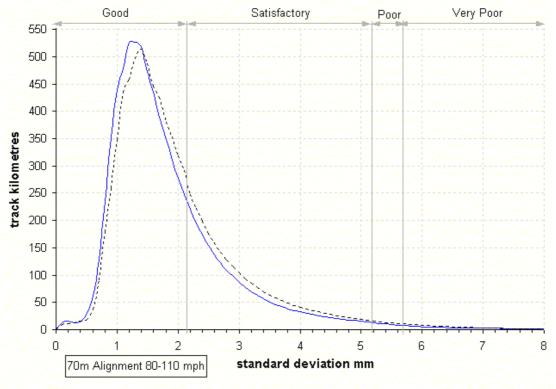


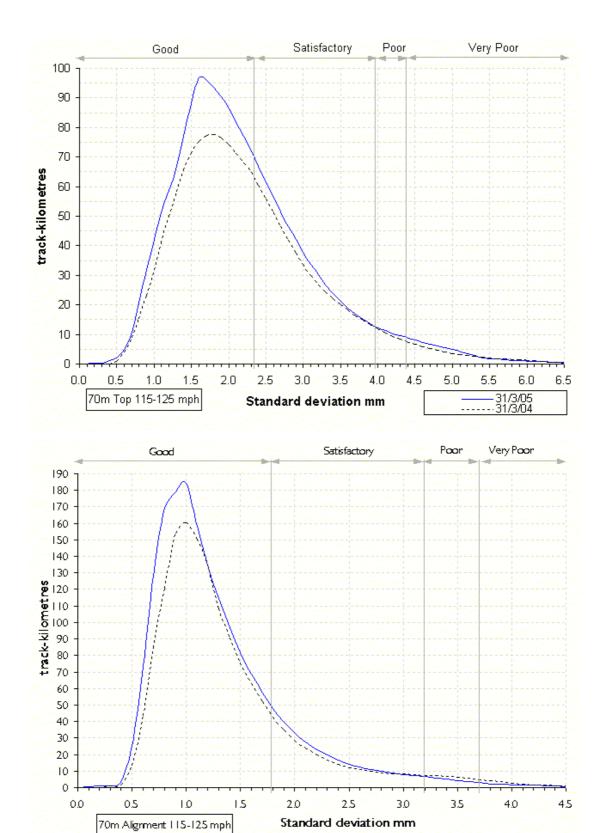












## Track geometry – level 2 exceedences (M5)

#### **Definition**

This measure is based upon the incidence of discrete or isolated faults identified against four principal parameters of top (relative vertical position), line (relative horizontal position), gauge (the distance between the rails) and twist (relative vertical position across the opposite corners of a 3 metre bogie or vehicle). These form part of the immediate output from the track recording vehicles to front-line maintenance employees and will prompt intervention and rectification actions to fixed timescales. Both the Level 2 trigger values and these specified timescales are mandated within Railway Group Standards.

The measure picks up historically the incidence of these isolated faults per track mile and therefore adds further shading to the results already included in the calculation of the standard deviation measure (M3). Comparison of the two sets of results gives an indication of whether overall track geometry quality reflects overall roughness with frequent minor imperfections or otherwise smooth track geometry which is broken up by a lower incidence of more severe faults. However, it should be noted that most of the current level 2 trigger values are not speed related, being more closely related to final safety parameters rather than passenger comfort and performance (as SD target values are). Therefore, the occurrences of high proportions of level 2 exceedences will be predominantly on lower category routes and this measure may be less indicative of overall network stewardship.

As with poor track geometry (M3), results are presented in terms of the eight operating Routes of the functional organisation which was established in May 2004, previous years' figures having been recalculated accordingly.

#### Results

Table 45 Level 2 exceedences p	er track mile				
Operating Routes	2001/02	2002/03	2003/04	2004/05	CG
London North Eastern			1.04	0.83	
London North Western			1.31	1.10	
Scotland			0.72	0.67	
South East - Anglia			1.77	1.24	
South East – Kent			0.86	0.60	
South East - Sussex			1.01	0.93	
South East - Wessex			1.21	0.95	
Western			1.06	0.92	
Network total	1.35	1.18	1.11	0.91	A2
Reporter				Hal	crow

Note: A lower number indicates better performance.

## Regulatory target

Reduction in the number of level 2 exceedences per track mile to no greater than 0.9 by 2005/06. No increase thereafter. This has been stated as a network total rather than applying to each territory.

All infrastructure output measures are subject to statistical variability caused by random fluctuation and the accuracy of data measurement. This "noise" is expressed as a tolerance when comparing actual values in this Annual Return with any regulatory target; the assessment of the tolerance is based on an analysis of historical data. We will revisit these tolerances with the ORR to agree updated values. The statistical tolerance for the level 2 exceedence measure has been assessed as  $\pm 7\%$  of the target.

## Reporting confidence

Measure M5 is reported to an accuracy within A2 confidence limits, in accordance with the reporter's most recent independent assessment for this measure.

## Commentary

These results illustrate the continuing improvements that are being made, year on year, to overall track geometry quality. Significant improvements have been made in the past year notably on South East Anglia, South East Kent, South East Wessex and London North East Routes. On Anglia the targeted action plans, as mentioned in last year's report, would appear to have been successful in reversing the former deteriorating trend.

The base level now being achieved for this measure, which is based on the trigger actually used to initiate maintenance work at discrete sites, as well as being susceptible to short-term variations and other seasonal effects, is now very low and further improvement across much of the network may now be especially challenging.

## Condition of asset temporary speed restriction sites (M4)

#### **Definition**

This measure provides an assessment of the quality of stewardship of track, structures and earthworks by identifying the number of sites where track geometry or asset condition has fallen sufficiently below that required for the route speed and traffic type to require the imposition of a temporary speed restriction (TSR) or an emergency speed restriction (ESR). It is a cumulative measure indicating the annual number of sites where an ESR or TSR has been imposed for a duration of 4 weeks or more due to a degradation in the condition of the asset (track, structure or earthworks). As an additional indicator of stewardship, a severity score is calculated to measure the degree and the duration of the deterioration. The severity score is calculated using the formula below.

#### Formula for severity score

The total severity score reported is the sum of the individual severity scores for all of the speed restriction sites in force during the year which is within the scope of the measure. The severity score for an individual speed restriction site is calculated using the following formula:

Severity score = 
$$LT(I - F)$$

where: L is the length of the speed restriction site measured to 3 decimal points (miles)

T is the duration of the speed restriction in weeks, measured by the day (e.g. 2 days are 2/7 = 0.286 weeks). For the purpose of calculating the annual severity score only days that the site is active during the reporting year are included in the duration. (i.e. days in prior years are not included in the severity calculation, although days in prior years are included for the purpose of determining if the site has been active for 4 weeks or more).

F is the fraction of the imposed (restricted) speed divided by the linespeed

i.e. 
$$F = \frac{Imposed speed}{Linespeed}$$

Where there are differential speeds for different traffic types (e.g. different freight and passenger speeds):

$$F = \left(\frac{\text{lowest imposed speed}}{\text{lowest line speed}} + \frac{\text{highest imposed speed}}{\text{highest line speed}}\right)/2$$

If the imposed speed or linespeed varies along the length of the speed restriction site, then the severity is calculated separately for each distance, and summed to give the total severity for that speed restriction.

If the length, speed or linespeed changes during the life of the speed restriction, then the severity is calculated separately for each time interval, and summed to give the total severity for that speed restriction.

The annual number of sites and the severity score is reported, by region, individually for track, structures and earthworks. The reporting year begins on 1 April and ends on 31 March.

#### Reporting method

See "Reporting confidence".

## Results

Table 46 Ti	ack temporary sp	eed restrict	ions					
Operating Routes	2002/	2002/	2003/	2003/	CG	2004/05	2004/05	CG
	03	03	04	04		TSR	Severity	
	TSR	Severity	TSR	Severity		sites	score	
	sites	score	sites	score				
London North Easte	ern					304	2481	
London North Wes	tern					267	1172	
Scotland						74	98	
South East - Anglia						71	106	
South East - Kent						14	9	
South East - Sussex						4	5	
South East - Wessex	(					28	36	
Western						105	514	
Network total	1,155	5,754	1,061	5,712	В3	867	4420	B2
Reporter								Halcrow

Table 47 Structure	s tempora	ry speed res	strictions					
Operating Routes	2002/	2002/	2003/	2003/	CG	2004/05	2004/05	CG
	03	03	04	04		TSR	Severity	
	TSR	Severity	TSR	Severity		sites	score	
	sites	score	sites	score				
London North Eastern						22	29	
London North Western						1	0	
Scotland						2	2	
South East – Anglia						0	0	
South East – Kent						0	0	
South East – Sussex						0	0	
South East – Wessex						2	6	
Western						11	9	
Network total	58	93	53	54	В3	38	45	B2
Reporter								Halcrow

Table 48 Earthwor	ks tempor	ary speed re	estrictions					
Operating Routes	2002/ 03	2002/ 03	2003/ 04	2003/ 04	CG	2004/05 TSR	2004/05 Severity	CG
	TSR	Severity	TSR	Severity		sites	score	
	sites	,	sites	•		31103	30016	
	Sites	score	Sites	score				
London North Eastern						12	61	
London North Western						6	13	
Scotland						2	11	
South East – Anglia						3	4	
South East – Kent						0	0	
South East – Sussex						0	0	
South East – Wessex						0	0	
Western						14	68	
Network total	95	322	85	323	В3	37	157	B2
Reporter								Halcrow

Whilst the ORR has not historically set a regulatory target for this measure to ensure that there is no disincentive to applying a speed restriction when it is judged to be necessary on safety grounds, it indicated in the Access Charges Review 2003 that an 'annual reduction (was) required'. We have assumed therefore that the regulatory target is for a reduction from 2003/04 levels, when there were I 199 TSRs due to condition of asset. We have yet to agree a tolerance on this measure, but note that the reporting confidence on the 2003/04 result was B3, implying an accuracy of up to +/- 10%.

## Reporting confidence

The reporting confidence has improved relative to the 2003/4 return. The reasons for this are:

- All TSR data is now captured in a single information system Possession Planning System (PPS) which eliminates any potential for duplication at the boundaries of areas.
- With a single system there is a reduced requirement for human intervention required to compile the reporting information and, therefore, less potential for error.
- A national list of all TSRs on the network is distributed to the Area teams who check to ensure that the list is correct.
- Some data was not reported for some months during the 2004/5 year which has the potential to reduce the quality of the information. The data has been manually sourced and checked to mitigate this potential. The cause of this has been eliminated and will lead to a further improvement in reporting confidence in future years.

Overall the reporting confidence shows a net improvement to B2.

## Commentary

Over the past three years there has been a consistent and substantial reduction in the number of TSRs imposed due to the condition of an earthwork or structure. The severity score for these TSRs has also reduced considerably over these years. These reductions are partly due to improvements in both the means of assessing the condition of these assets and in the targeting of substantial investment in higher priority sites. It is also due to the fact that in the past few years there have, nationally, been few extreme rainfall events which have led to the rapid, severe degradation of these assets.

## Earthwork failures and derailments (M6)

#### **Definition**

This measure reports the annual number of embankment or cutting failures and separately identifies the number of failures causing a passenger or freight train derailment on running lines.

## Reporting method

This is in accordance with the company procedures for measuring and reporting earthworks failures and derailments. Generally this involves details of incidents, which fall under the above definition, to be captured in the Daily National Incident Log. These are checked with the Territory Civil Engineers every three periods for their agreement and for discrepancies to be incorporated.

#### Results

The number of embankment or cutting sites which have become unstable are set out in the table below.

Table 49 Earthwork failures				
Operating Routes	2003/04	CG	2004/05	CG
London North Eastern	3		4	
London North Western	8		21	
Scotland	7		11	
South East Anglia	7		5	
South East Kent				
South East Sussex	0		I	
South East Wessex	0		0	
Western	21		11	
Network total	47	AX	54	AX

## Regulatory target

This is covered by other asset condition and serviceability measures and should be no deterioration from the 2003/04 levels, which is 47 national earthworks failures.

The tolerance for this measure is still to be assessed.

## Reporting confidence

Given that the hazard reporting system that generated the data has been running since August 2003, we believe that a rating of A2 is appropriate both for the operational route split and for the total.

## Significant changes since Annual Return 2004

The increase between 2003/04 to 2004/05 is principally due to the increase in the LNW Route due to localised high rainfall in January 2004 in parts of the Route.

## Commentary

The total of 54 failures includes one slope failure causing a derailment in 2004/05. This was a freight train derailment, which occurred on 5 November 2004 near Applehurst Junction on LNE Territory. An embankment slip resulted in the derailment.

## **Bridge condition (M8)**

#### **Definition**

The bridge condition grade is a measure from 1 to 5, with 1 representing good condition and 5 poor condition. Each bridge is graded from a structures condition marking index (SCMI) value determined using the scoring tool set out in the SCMI handbook. The SCMI process is a marking methodology that grades the condition of each bridge on a 1-100 scale and involves defining the elements of the bridge and determining the extent and severity of any defect in each of the elements. The bridge scores are collated into 5 bands: (1) 100-80, (2) 79-60, (3) 59-40, (4) 39-20 and (5) 19-1

## Reporting method

The reported measure is presented as a distribution graph (see Figure 7), showing the cumulative number of bridges assessed since 2000 on a I-I00 scale. Additionally, bridge mark data is collated into each of the 5 condition grades, and numbers of bridges reported by band (in Table 49).

Progress of the bridge condition measure is monitored against the cumulative number of bridges entered on the SCMI tool compared to the total population (from GEOGIS).

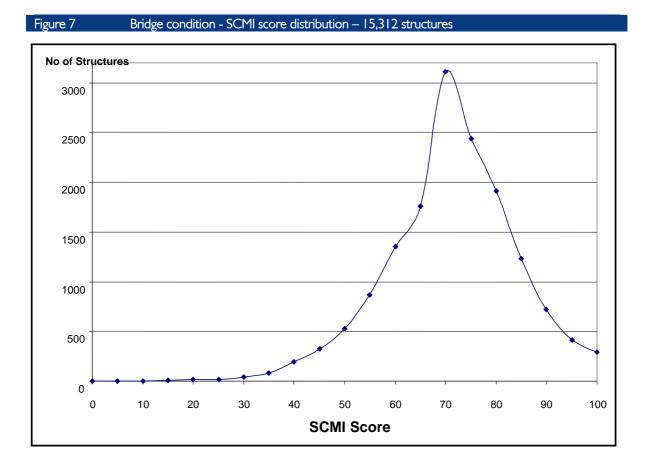
#### Results

The reported measure for 2004/5 consists of the number of bridges assessed between the period 15 February 2004 to 31 March 2005.

Table 50	Bridge co	ondition ir	ndex									
Bridge condition grade	Equivalent SCMI value	2000 /01	200 I /02	2002 /03	Adjust- ments	2003 /04 No. of bridges	2000 /04 4-year total No. of bridges	CG	Adjust- ments	2004 /05 No. of bridges	2000 /05 5-year total No. of bridges	CG
	80-100	141	340	1015	26	733	2,255		-28	793	3,020	B3
2	60-79	648	815	2484	-6	2,067	6,008		-43	3,193	9,158	B3
3	40-59	210	249	692	-20	789	1,920		-25	923	2,818	B3
4	20-39	16	16	61	-2	126	217		-3	90	304	В3
5	1-19	0		3	0	3	7		0	5	12	В3
Total no. ex	xamined	1015	1421	4255	-2	3,718	10,407		-99	5,004	15,312	Al
Average co	ndition	2.1	2.0	2.0		2.1	2.0	В3		2.1	2.0	B2*
Reporter												uchel kman

<sup>\*</sup> Provisional assessment – for agreement with reporter

Figure 7 below, gives a graphical representation of the distribution of the 15,312 bridge scores over the whole SCMI range.



The regulatory target is to return bridge condition to 2001/02 levels. However, the quantification of the regulatory target for SCMI would need to be based on a small sample of inspections which were conducted in 2001/02, which may not be representative, with adjusted condition assessments from other years.

All asset condition measures are subject to statistical variability caused by the accuracy of condition assessment (there is inevitably some subjectivity involved in condition surveys), and because not every asset is assessed each year and the sample inspected may not be statistically representative. The tolerance for the bridge condition index has been assessed as  $\pm$  0.1 on the target. However it has been discussed with the ORR that a full target and the tolerance cannot be firmly established until all bridges have undergone SCMI which is anticipated to be in 2007/08.

## Reporting confidence

We feel the confidence grades should be B3 for numbers of bridges in each condition grade (1-5); B2 for the average condition grade for the inspected bridges stock. We think there are improvements to be made to deal with the small number of errors/duplicate entries found in the data, which are reflected in the adjustments figures in Table 49. However our gradings are supported by audits carried out on a sample of the data in 2004/05 (see commentary).

## Significant changes since Annual Return 2004

The SCMI tool was networked in January 2005 and this system has been linked to bridge listing data downloaded from GEOGIS (July 2004) to enable the progress of bridge condition to be monitored against the total population of 42,533. The population of bridges comprises:

- 27,334 underbridges (including intersection bridges and viaducts).
- 12,486 overbridges.
- 2,713 side bridges.

## Commentary

A sample audit of 213 of the bridges marked by Structures Examination Contract (SEC) employees was undertaken by the same team of experienced bridge engineers used for the previous three years to ensure consistency and validate the results on all Routes. 58% of the audited scores were within the variability expected of the system (ie. 3 points on the 1-100 scale), which and represents a significant improvement over 44% for the previous year.

As an additional measure of the data quality we have introduced for 2004/05 error ratio values to quantify the significance and range of errors for each of the bridges audited and to serve as an aid for SEC employees.

The data available for 2005 is for 15,312 bridges in all Territories and includes:

- 10,918 underbridges.
- 4,311 overbridges.
- 83 side bridges.

## Signalling failures (M9)

#### **Definition**

This measure reports the total number of signalling failures causing a cumulative total train delays of more than 10 minutes per incident, and only includes failures on Network Rail owned infrastructure.

## Reporting method

The data was compiled from the TRUST system (Train Running System) and shows the number of signalling failures where train delays in excess of 10 minutes have been recorded. This data was merged with the reported train mileage then allocated to the business operating routes.

#### Results

Table 51 Number of signalling fail	lures				
Operating Routes	2003/04	No. per	2004/05	No. per	Confidence
	no.	million train	no.	million train	grade
		km		km	
London North Eastern (LNE)			5234	49	В3
London North Western (LNE			6382	60	В3
LNE & LNW	13,662	63	11616	54	В3
Scotland	2,948	63	2968	63	В3
South East - Anglia	2,385	55	2057	47	В3
South East - Kent			1559	51	В3
South East - Sussex			1104	35	В3
South East - Wessex			2273	53	В3
South East - Southern	5,256	50	4936	47	В3
Western	3,847	58	3373	52	В3
Network total	28,098	59	24950	53	B2
Regulatory target			28098	59	
Reporter					Halcrow

#### Notes:

#### Regulatory target

The regulatory target is for this measure to show no deterioration from the 2003/4 levels, i.e. 28,098.

All infrastructure output measures are subject to statistical variability caused by random fluctuation and the accuracy of data measurement. This "noise" is expressed as a tolerance when comparing actual values in this Annual Return with any regulatory target; the assessment of the tolerance is based on an analysis of historical data. The statistical tolerance for signalling failures is assessed as  $\pm 7.3\%$  of the target.

## Reporting confidence

The reporting confidence is B2 overall with Route breakdowns at B3.

I. Separate figures for Kent, Sussex and Wessex were not available in 2003/04 and have been grouped together in South East (Southern). The combined figures of South East (Southern) provide a comparison between the two year's results.

## Significant changes since Annual Return 2004

Transfer of maintenance to Network Rail direct management

Replacement of fault reporting and monitoring of equipment and signalling incident system failure reporting database systems with fault management systems

West Coast Main Line Project – new signalling equipment bedding-in

Number of failures with new technology equipment is reducing

#### Commentary

During the reporting period a series of changes occurred which included the majority of signalling maintenance being transferred from private contractors to Network Rail and the introduction of the infrastructure fault reporting computer system (FMS). Failure modes on new signalling equipment being installed particularly on the West Coast Main Line project and cross country routes, were also becoming better understood. Various maintenance boundary changes took place; the most notable was the transfer of the East Midlands area from LNW to LNE management.

The number of failures in 2004/5 on all areas has generally shown a small reduction compared with the previous year. The downtime per failure on each area has shown a slight increase, this being consistent across all areas. The product of failures and downtime is consistent with the slight improvement shown by the signalling failures measure M9. The numbers of failures experienced during 2004/05 is reduced from 2003/04, hence within the regulatory target.

## Signalling asset condition (MI0)

#### **Definition**

The purpose of this measure is to assess the condition of signalling assets in terms of a 1-5 grading system, where a condition grade of 1 is good and 5 poor. Condition grade is based on residual life of the equipment in a signalling interlocking area using the signalling infrastructure condition assessment (SICA) tool. While the assessment is dominated by the condition of the interlocking, the condition of lineside signalling equipment is also taken into account. This measure does not include level crossings, remote frames or ground frames.

## Reporting method

This Annual Return has been collated from SICA assessment records held as spreadsheets from individual operating routes which were then compiled and analysed manually to produce a national summary as presented here. This process has been used for deriving information presented in this Annual Return previously. In 2005/06 we wish to extend use of the SICA Information System (SIS) which is already in use on many territories, on a national basis to enable condition information to be more readily available.

#### Results

Table 52	Signalli	ng condition ind	lex					_
Condition	Observed	2000/01	2000/02	2000/03	2000/04	CG	2000/05	CG
grade	nominal	no. of	2-year total	3-year total	4-year total		5-year total	
	residual	interlocking	no. of	no. of	no. of		no. of	
	life	areas in	interlocking	interlocking	interlocking		interlocking	
	(years)	condition	areas in	areas in	areas in		areas in	
		band	condition	condition	condition		condition	
			band	band	band		band	
	>20	0	31	15	0	В3	5	В3
2	10-20	441	671	655	736	В3	782	В3
3	3-10	162	262	295	559	В3	626	В3
4	<3	27	79	67	98	В3	97	В3
5	At end of	0	0	0	0	В3	0	В3
	life							
Average co grade	ndition	2.3	2.4	2.4	2.5	В3	2.5	В3
Total numb	er assessed	630	1,043	1,032	1,393		1,510	
Reporter							Halcrow	

Table 53	Signallii	ng cond	dition in	dex by	territo	ory								
Operating Routes \condition grade	I	2	3	4	5	Total 03/04	S	I	2	3	4	5	Total 2004/05	CG
London North Eastern	0	182	63	21	0	266	В3	0	255	96	17	0	368	В3
London North Western	0	178	144	43	0	365	В3	I	197	145	40	0	383	В3
Scotland	0	129	38	2	0	169	В3	- 1	105	61	2	0	169	В3
South East – Anglia	0	34	47	3	0	84	В3	I	28	48	7	0	84	В3
South East - Kent	0	79	9	2	0	90	В3	0	66	21	3	0	90	В3
South East – Sussex	0	26	33	0	59	118	В3	0	19	40	0	0	59	В3
South East – Wessex	0	59	23	0	0	82	В3	2	57	22	I	0	82	В3
Western	0	46	200	28	0	274	В3	0	55	193	27	0	275	В3
Network total	0	733	557	99	0	1389	83	5	782	626	97	0	1510	В3
Independent Reporter													Hal	crow

This is covered by other asset condition and serviceability with no deterioration from 2003/04 levels i.e. 2.5.

All asset condition measures are subject to statistical variability caused by the accuracy of condition assessment (there is inevitably some subjectivity involved in condition surveys), and because not every asset is assessed each year. This "noise" is expressed as a tolerance when comparing actual values in this Annual Return with any regulatory target. The tolerance for the signalling condition index is assessed as  $\pm$  0.1 on the target.

## Reporting confidence

Network Rail believes a confidence grade of B3 is appropriate for this data. This is on the basis that no extrapolation has been applied to the data, although there are some shortcomings in that not all interlockings have yet been assessed and all the assessments have not been done to exactly the same standard, although the principles have remained consistent. The accuracy is claimed to be band 3 because whilst SICA does not produce an absolutely predictable result, it will give a better result that 25% which represents 10 years in the context of a 40 year asset life as with better information there is a better renewals business planning process. This overall condition assessment is thought to be an appropriate target for an assessment of this type.

#### Significant changes since Annual Return 2004

The most significant change from last year is that a further 120 interlockings have been added to the list of those assessed. It can be seen that the overall distribution of interlocking ages across the 5 bands has not changed significantly and the average condition has remained at 2.5 (as in the SICA Manual).

#### Commentary

Overall, the average age and age profile of interlockings across Network Rail has not changed significantly since the report for 2003/04. The above figures represent coverage of approximately 82% of interlockings nationally. Network Rail is reporting I 20 more assessments this year. There has been good progress in getting more installations assessed but the number of new assessments is down on last year. For interlockings not reported above, their residual life is assumed to be one year less than last year. Factoring these interlockings into the figures would not have a significant effect on the overall averages or the distribution. Interlockings which are life expired, which are not being reported and which are to be replaced in this year may be supported by additional asset condition information such as company peer reviews and will appear in the current renewals workbank. Interlockings with a red condition appear in the business plan for CP3 either as complete renewals, or life-extension works.

Network Rail is developing improved business planning processes for signalling renewals and establishment of a sound record of asset age is key to this as renewals need to be planned around renewals dates. This allows a firm renewals plan to be established and condition assessment facilitates informed strategic decision for each asset. As previously mentioned, the SICA Information System and use of this will become the norm in the next year. Network Rail is also introducing the use of interlocking data cards as a repository for condition and renewals information for individual interlockings. It is the eventual aim to have these systems linked such that assessment and hence remaining life information is available to drive the signalling renewals plan. Much of this work is being carried out in support of the Signalling Interim Review, in which Network Rail are engaged with the ORR.

## Alternating current traction power incidents causing train delays (MII)

#### **Definition**

This measure reports the number of overhead line equipment (OLE) component related failures that lead to incidents of duration exceeding 500 train delay minutes. Incidents due to bird strikes and vegetation incursion are included but those proved to have been caused by defective train operating company (TOC) equipment, outside parties, vandalism and those arising as a direct result of extreme weather conditions are excluded.

## Reporting method

The national report has been produced in accordance with the Network Rail Asset Reporting Manual Procedure NR/ARM/MITPR. Generally this involves the National Engineering Reporting Manager (NERM) monitoring failures reported in the Daily National Incident Report and at each period end the summary is sent to the Territory Electrical and Plant Engineers for their review and verification. It is they who investigate the cause of each traction power incident, and the verified figures are provided to the NERM.

#### Results

Table 54	Electrification	failures – o	verhead line	:				
Operating Route	S	2000/01	2001/02	2002/03	2003/04	CG	2004/05	CG
London North Ea	astern				21		20	B2
London North W	/estern				31		28	B2
Scotland					3		6	BX
South East Anglia					24		17	B2
South East Kent					0		0	BX
South East Sussex	<				0		-	
South East Wess	ex				0		-	
Western					0		0	BX
Number of incide	ents	88	107	102	79	B2	71	B2
(National)								
Reporter								Halcrow

## Regulatory target

The regulatory target is for no deterioration from the number of incidents reported for 2001/02 (107).

All infrastructure output measures are subject to statistical variability caused by random fluctuation and the accuracy of data measurement. This "noise" is expressed as a tolerance when comparing actual values in this Annual Return with any regulatory target; the assessment of the tolerance is based on an analysis of historical data. We will revisit these tolerances with the ORR to agree updated values. The statistical tolerance for overhead line failures is assessed as  $\pm 28\%$  of the target.

## Reporting confidence

Overall the confidence level is considered to be B2.

## Significant changes since Annual Return 2004

None

## Commentary

The 2004/05 national figure (71) shows a reduction in traction power supply failures of 8 which equates to 10% of the 2003/04 total (79 reportable incidents). The majority of the reduction in failures was on South East Territory (West Anglia, North London Line and Great Eastern). The reduction in reportable failures is not considered statistically significant.

## Direct current traction power incidents causing train delays (M12)

#### **Definition**

This measure reports the number of conductor rail component related failures that lead to incidents of duration exceeding 500 train delay minutes. It excludes incidents proved to have been caused by defective TOC equipment, outside parties, vandalism, animals and those arising as a direct result of extreme weather conditions.

## Reporting method

The national report has been produced in accordance with the Network Rail Asset Reporting Manual Procedure NR/ARM/M12PR. Generally this involves the National Engineering Reporting Manager (NERM) monitoring failures reported in the Daily National Incident Report and at each period end the summary is sent to the Territory Electrical and Plant Engineers for their review and verification. It is they who investigate the cause of each traction power incident, and the verified figures are provided to the NERM.

#### Results

Table 55 Electrification	on failures – co	onductor rai	il				
Opearting Routes	2000/01	2001/02	2002/03	2003/04	CG	2004/05	CG
London North Eastern				0		0	BX
London North Western				2		1	BX
Scotland				0		-	
South East Anglia				0		0	BX
South East Kent				8		4	BX
South East Sussex				11		5	BX
South East Wessex				12		3	BX
Western				0		-	
Number of incidents	45	30	32	33	B2	13	BX
(National)							
Reporter							Halcrow

#### Regulatory target

The regulatory target is for no deterioration from the number of incidents reported for 2001/02 (30).

All infrastructure output measures are subject to statistical variability caused by random fluctuation and the accuracy of data measurement. This "noise" is expressed as a tolerance when comparing actual values in this Annual Return with any regulatory target; the assessment of the tolerance is based on an analysis of historical data. We will revisit these tolerances with the ORR to agree updated values. The statistical tolerance for conductor rail failures is assessed as  $\pm 47\%$  of the target.

## Reporting confidence

Overall the confidence level is considered to be BX (it should also be noted that this is a very small data set size).

## Significant changes since Annual Return 2004

The level of electrification failures (13) reported under this measure is the lowest since records began in 2000/01. The Territory Electrical and Plant Engineer (South East) has stated that there has been a more rigorous approach to classifying failures after concentration on root cause, and this is the reason for the low failure count.

## Commentary

The 2004/05 national figure (13) shows a reduction in traction power supply failures of 20 which equates to 61% of the 2003/04 total (33 reportable incidents).

# Electrification condition – AC traction feeder stations and track sectioning points (MI3)

#### **Definition**

This is a measure of the condition of alternating current (AC) traction feeder stations (FSs) and track sectioning points (TSPs), on a scale of I-5, based on visual inspection and the age, robustness of design, maintenance/refurbishment history and operational performance of the 25kV switchgear:

- band I: equipment is free from defects with negligible deterioration in condition
- band 2: evidence of minor defects and/or early stage deterioration that may require some remedial work to be undertaken
- band 3: defects and/or a level of deterioration that requires remedial work to be undertaken
- band 4: significant defects and/or a high level of equipment deterioration needing major repairs/heavy maintenance or complete renewal to be programmed
- band 5: serious defects and deterioration of a level that, should the equipment still be in operation, has potential for service disruption

The measure reports the percentage of feeder stations and track sectioning points falling within each of the defined condition grades.

## Reporting method

The national report has been produced in accordance with the Network Rail Asset Reporting Manual Procedure NR/ARM/M13PR. Generally condition assessment is done through a combination of visual inspections of 25kV switchgear at feeder stations and a selection of traction sectioning points together with consideration of robustness of design and particular service, maintenance and refurbishment history aspects of the switchgear. Each inspection is based on a standard set of pre-determined questions.

#### Results

Table 56	lectrification cor	ndition – AC tr	action 2000-05 year tot	tal	
Condition grade	National	South East	London North East	London North West	Scotland
1	30%	39%	30%	14%	62%
2	55%	40%	59%	68%	35%
3	14%	18%	10%	18%	3%
4	1%	3%	1%	0%	0%
5	0%	0%	0%	0%	0%
Average condition grade	1.87	1.85	1.83	2.05	1.41
Reporter					Halcrow

Note: LNW includes all Western assets.

Table 57 Electrification condition – AC traction 2004/05 year total									
Condition grade	National	South East	London North East	London North West	Scotland				
1	52%	67%	27%	56%	73%				
2	38%	26%	50%	44%	27%				
3	10%	7%	23%	0%	0%				
4	0%	0%	0%	0%	0%				
5	0%	0%	0%	0%	0%				
Average condition	1.57	1.40	1.95	1.44	1.27				
Reporter					Halcrow				

Note: LNW includes all Western assets.

## Regulatory target

The regulatory target is under "Condition and serviceability" to be maintained at 2001/02 levels i.e. the national average of 2.1.

All infrastructure output measures are subject to statistical variability caused by random fluctuation and the accuracy of data measurement. This "noise" is expressed as a tolerance when comparing actual values in this Annual Return with any regulatory target; the assessment of the tolerance is based on an analysis of historical data. The tolerance for AC feeder station condition is assessed as  $\pm 0.1$  on the target.

## Reporting confidence

In the figures shown, 90% of the assets have been assessed and the remaining 10% have been awarded a substitute score by extrapolation. The overall score should be accurate within  $\pm 5\%$  (B2).

#### Significant changes since Annual Return 2004

No significant changes since 2004 to report.

#### Commentary

The current situation is that 77 FSs out of a network total of 83 have been inspected (93% of the asset base against a target of 90%). For track sectioning points, 186 out of a network of 207 have been inspected (90% of the asset base as per the target). Previous assessments for locations that no longer function as a FS or TSP have been omitted from the statistics.

Maintenance has been brought in-house and this is having a positive benefit in the control and standard of servicing the assets are receiving.

Extensive renewal programmes are in place to maintain and enhance the reliability of the AC electrification assets. Expired protection relays are being replaced with modern protection relays with improved communication facilities.

A renewal programme is progressing toward the replacement of minimum, oil switchgear. This type of switchgear has been in service for over forty years, but now the reliability of the equipment and availability of spare parts is diminishing.

## **Electrification condition – DC traction substations (MI4)**

#### **Definition**

This is a measure of the condition of Network Rail's direct current (DC) traction substations, on a scale of I-5, based on visual inspection and the age, robustness of design, maintenance/refurbishment history and operational performance of the high voltage (HV) switchgear, rectifier transformers, rectifiers and DC switchgear:

- band I: equipment is free from defects with negligible deterioration in condition
- band 2: evidence of minor defects and/or early stage deterioration that may require some remedial work to be undertaken
- band 3: defects and/or a level of deterioration that requires remedial work to be undertaken
- band 4: significant defects and/or a high level of equipment deterioration needing major repairs/heavy maintenance or complete renewal to be programmed
- band 5: serious defects and deterioration of a level that, should the equipment still be in operation, has potential for service disruption

## Reporting method

The national report has been produced in accordance with the Network Rail Asset Reporting Manual Procedure NR/ARM/M14PR. Generally condition assessment is to be done through a combination of visual inspection of HV switchgear, rectifier transformer, rectifier and DC switchgear equipment at traction substations and the consideration of age, robustness of design and particular service, maintenance and refurbishment history aspects of this switchgear. Each inspection is based on a standard set of pre-determined questions.

#### Results

Table 58 Electrification condition – DC traction substations 2000-05 year total									
Condition grade	National	South East	London North East	London North West	Scotland				
1	34%	36%	0%	18%	0%				
2	50%	48%	67%	73%	0%				
3	15%	15%	33%	9%	0%				
4	1%	1%	0%	0%	0%				
5	0%	0%	0%	0%	0%				
Average	1.82	1.80	2.33	1.91	N/A				
condition grade									
Reporter					Halcrow				

Table 59 E	lectrification cor	ndition – DC tr	actions substations 200	4/05	
Condition grade	National	South East	London North East	London North West	Scotland
	58%	55%	0%	75%	0%
2	42%	45%	100%	25%	0%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
5	0%	0%	0%	0%	0%
Average condition grade	1.42	1.45	2.00	1.25	N/A
Reporter					Halcrow

The regulatory target is under "Condition and serviceability" to be maintained at 2001/02 levels i.e. the national average of 2.3.

All infrastructure output measures are subject to statistical variability caused by random fluctuation and the accuracy of data measurement. This "noise" is expressed as a tolerance when comparing actual values in this Annual Return with any regulatory target; the assessment of the tolerance is based on an analysis of historical data. We will revisit these tolerances with the ORR to agree updated values. The tolerance for DC feeder station condition is assessed as  $\pm$  0.1 on the target.

## Reporting confidence

Reporting of M14 – Electrification Condition DC traction substations is graded at B2 confidence.

89% of the assets have been assessed and the remaining 11% have been awarded a substitute score by extrapolation. The overall score is accurate within  $\pm 5\%$ .

#### Significant changes since Annual Return 2004

No significant changes since 2004 to report.

#### Commentary

The current situation is that 371 substations out of a network total of 417 substations have been inspected (89% of the asset base against a target of 90%).

A major power supply upgrade project is on-going which will deliver an enhanced service with better reliability.

Maintenance has been brought in-house and this is having a positive benefit in the control and standard of service the assets are receiving.

## **Electrification condition – AC traction contact systems (MI5)**

#### **Definition**

This is a measure of the condition of AC contact systems, on a scale of I-5, based on physical wear measurement of contact wire and visual inspection of key components including contact and catenary wires, registration assemblies and structures. A condition grade of I is good and 5 is poor. This measure excludes all earthing, bonding and traction return circuits.

## Reporting method

This is in accordance with the company's Asset Reporting Manual procedures.

#### Results

National

Table 60	Electrification condition – AC traction contact system			
Condition grade	2000/04	CG	2004/05	CG
	4-year total		I-year total	
	contact wire/key		contact wire/key	
	components		components	
	39%		39%	
2	53%		53%	
3	9%		8%	
4	0%		0%	
5	0%		0%	
Average conditio	n grade I.7	В3	1.7	В3
Percentage of ass	ets surveyed 15%		20%	
Reporter			Hal	crow

Territories for 2004/05 | year total contact wire/ key components

_Table 61 E	lectrification conditio	n – AC traction co	ontact system		
Condition grade	LNE	LNW	Scotland	SE	Western
1	54%	23%	54%	25%	80%
2	40%	67%	40%	66%	20%
3	7%	10%	5%	8%	0%
4	0%	0%	1%	0%	0%
5	0%	0%	1%	0%	0%
Average condition grade	1.5	1.9	1.5	1.8	1.2
Percentage of assets surveyed	s 12%	20%	19%	18%	11%
Reporter					Halcrow

The regulatory target is under "Condition and serviceability" to be maintained at 2001/02 levels i.e. the national average of 1.8.

All infrastructure output measures are subject to statistical variability caused by random fluctuation and the accuracy of data measurement. This "noise" is expressed as a tolerance when comparing actual values in this Annual Return with any regulatory target; the assessment of the tolerance is based on an analysis of historical data. We will revisit these tolerances with ORR to agree updated values. The tolerance for overhead line condition is assessed as  $\pm$  0.1 on the target.

## Reporting confidence

Reporting of MI5 – Electrification Condition AC traction contact systems is graded at B3 confidence.

## Significant changes since Annual Return 2004

See "Commentary"

## Commentary

Condition assessments are based on a combination of site inspections and service history.

Major re-structuring of the business together with a re-focus of engineering resource into renewal plan and standards development has resulted in a 3% shortfall against the 20% population target for the current control period.

The data collected this year, mainly from the London North Western Territory, has not changed the national average condition score of 1.7.

## Electrification condition - DC traction contact systems (MI6)

#### **Definition**

This is a measure of the condition of DC contact systems, on a scale of I-5, based on physical wear measurement of conductor rail. A condition grade of I is good and 5 is poor. The measure excludes any associated equipment (e.g. insulators, anchor assemblies, protective boarding, etc.).

## Reporting method

This is in accordance with the company's Asset Reporting Manual procedures.

#### Results

#### National

Table 62 E	ectrification condition – DC traction contact system			
Condition grade	2000/04	CG	2000/05	CG
	4-year total		5-year total	
	conductor rail		conductor rail	
	37%		35%	
2	44%		44%	
3	16%		18%	
4	2%		3%	
5	0%		0%	
Average condition g	rade I.8		1.9	
Percentage of assets	surveyed 64%	В3	68%	В3
Reporter			Halcrow	

Territories for 2004/05

Table 63 Electrification condition – DC t	raction contact system		
Condition grade	London North	London North	South East
	Eastern	Western	
	-	39%	35%
2	-	30%	44%
3	-	18%	18%
4	-	9%	2%
5	-	3%	0%
Average condition grade		2.1	1.9
Percentage of assets surveyed		14%	71%
Reporter			Halcrow

Note: There are no DC Assets in Scotland and Western territories, and London North Eastern only has a very small amount.

The regulatory target is under "Condition and serviceability" to be maintained at 2001/02 levels i.e. the national average of 1.8.

All infrastructure output measures are subject to statistical variability caused by random fluctuation and the accuracy of data measurement. This "noise" is expressed as a tolerance when comparing actual values in this Annual Return with any regulatory target; the assessment of the tolerance is based on an analysis of historical data. We will revisit these tolerances with the ORR to agree updated values. The tolerance for conductor rail condition is assessed as  $\pm 0.1$  on the target.

## Reporting confidence

Reporting of M16 – Electrification Condition (DC traction contact systems) is graded at B3 confidence. We have revisited the Midlands assessments during the reporting year to deal with the issues arising from last year's audits, and are confident that all territory assessments can also be accorded B3 confidence, where significant numbers of assets exist.

## Commentary

Scotland and Western Territories do not have any DC third Rail.

LNE have only a very small amount between Drayton Park and Moorgate (9.4 STKm) which represents only 0.2% of the total DC third rail installed nationwide.

From maintenance inspections, this is known to be in relatively good condition (most of it having been renewed since transfer from LUL) and gauging of wear/condition assessments for M16 have yet to be undertaken.

The cumulative length of conductor rail assessed so far for this measure represents 68% of the total population of conductor rail.

New data reported this year includes the North London Line in the South Eastern Territory which has slightly worsened the national average condition score by 0.1.

There is currently no data included from the North West area of the London North Western Territory which has 233 track kilometres of conductor rail, representing 5.2% of the DC network. Some 40% of this is aluminium/steel composite type conductor rail which has been recently installed, and in good condition.

## **Station condition index (MI7)**

#### **Definition**

This is the average condition rating of each station where trains make timetabled stops, summarised into categories (A - F, national hub – small unstaffed station) together with the overall condition rating for all stations.

This is calculated by assessing the condition of each element of a station by visual inspection. These condition scores are then combined into an overall score of each station. The scale represents a combination of the degree of deterioration. It has been adopted as a standard method for assessing the condition of a variety of assets types.

The condition rating score of each station is the average of the condition ratings of the individual assets rated on a scale of 1-5. The scale of 1-5 is a summary of the remaining asset life, expressed as a percentage of the expected full life of the asset, as in the table below.

Remaining life as a percentage of	Condition rating
expected full life	
76% - 100%	
46% - 75%	2
16% - 45%	3
1% - 15%	4
0%	5

## Reporting method

The condition score is an average of the score from 34 elements on the stations such as platforms, canopies, structure and decoration. These elements are condition rated using a scale of I-5, where one is 'as installed' and five is 'no longer serviceable'.

#### Results

Table	Table 64 Station numbers									
		Managed Stations	London North Eastern	London North Western	Scotland	Western	Anglia	Kent	Sussex	Wessex
Α	National hub	17	3	4	I	2			I	
В	Regional hub		9	13	5	5	13	5	3	14
С	Important feeder		25	37	6	22	43	33	26	51
D	Medium, staffed		42	56	23	26	28	46	41	36
Е	Small, staffed		53	217	107	58	59	60	67	57
F	Small, unstaffed		257	262	195	272	92	36	34	48
	Totals	17	389	589	337	385	235	180	172	206

Station category	of stations in each Year	Grade	Grade	Gmda	Grade	Grade	Tota
Station category	1 ear	Grade	Grade 2	Grade 3	Grade 4	Grade 5	ıota
A – National hub	2000/01	I	15	10	0	0	26
A - National nub	2001/02	0	15	10	0	0	26
	2001/02	1	19	7	0	0	27
	2002/03	<u> </u>	21	6	0	0	28
	2003/04	ı ı	Z1	0	U	U	
	2004/05	0	24	4	0	0	28
B – Regional hub	2000/01	0	51	8	0	0	59
	2001/02	0	54	12	0	0	66
	2002/03	0	54	13	0	0	67
	2003/04		52	14	0	0	67
	2004/05		54	12	0	0	67
C – Important feeder	2000/01	7	191	50	0	0	248
	2001/02	8	179	49	0	0	23
	2002/03	8	175	59	0	0	242
	2003/04	7	172	62	0	0	24
	2004/05	10	166	65	0	0	24
D – Medium, staffed	2000/01	15	208	58	0	0	28
	2001/02	19	212	60		0	29
	2002/03	18	200	78		0	29
	2003/04	18	190	89	0	0	29
	2004/05	21	189	88	0	0	29
E – Small, staffed	2000/01	28	504	118	2	0	65
	2001/02	35	505	127	3	0	67
	2002/03	35	492	145	4	0	67
	2003/04	34	486	152	4	0	67
	2004/05	43	472	159	3	0	67
F - Small, unstaffed	2000/01	61	787	288	7	0	114
	2001/02	63	804	296	5	0	116
	2002/03	61	833	292	4	0	119
	2003/04	44	894	249	4	0	1,19
	2004/05	76	861	254	3	0	1,19
All stations	2000/01	112	1,756	532	9	0	240
	2001/02	125	1,769	555	9	0	2458
	2002/03	123	1,773	594	9	0	2499
	2003/04	105	1,815	572	8	0	2,500

Scoring scale: Grade I is good, grade 5 is poor The average condition grade for all stations in 2004/05 is 2.23

This is covered by "Other asset condition and serviceability" with no deterioration from 2003/04 levels i.e. 2.25.

All asset condition measures are subject to statistical variability caused by the accuracy of condition assessment (there is inevitably some subjectivity involved in condition surveys), and because not every asset is assessed each year. This "noise" is expressed as a tolerance when comparing actual values in this Annual Return with any regulatory target. The tolerance for the station condition index is assessed as  $\pm$  0.1 on the target.

## Reporting confidence

Reporting of M17 – Station Condition Index, is confidence rated B2 in respect of the overall condition index and the breakdown of numbers of stations in 2004/05 by integer condition grade (1-5, where '1' is 1.00 through 1.49).

## Significant changes since Annual Return 2004

No significant changes since 2004 to report.

#### Commentary

A total of 456 stations have been surveyed and condition assessments included in this year's sample. The national average for the complete station portfolio now stands at 2.23. For the stations involved in the sample the average score is 2.16. A full list of stations and their individual condition grade with date of most recent survey can be found in appendix 1.

Overall the results for 2004/05 show the average condition score for all stations has improved against last year's assessment. This reflects a number of planned asset renewal projects delivered in the year and also takes account of work carried out on dilapidations by the TOCs prior to refranchising.

Discussions continue with the ORR regarding improvements to this measure.

## Station facility score (MI8)

#### **Definition**

This measure assesses the level of facilities present at stations broken down by station category and by theme. The score is calculated by counting the number of specific items at each station.

Each station is allocated to one of six categories: (A) – national hub, (B) – regional hub, (C) – important feeder station, (D) – medium staffed station, (E) – small staffed station and (F) – small unstaffed station.

The facilities are grouped into 'themes'. The themes include the following facilities:

- access disabled lavatories, induction loops, escalators
- comfort and convenience lavatories, shelters, covered trail on platforms
- information and communications clocks, public address, customer information systems
- integrated transport taxi ranks, car parks, highway markings
- safety and security lighting, handrails and anti-slip floors on footbridges and subways, CCTV, security doors and windows on employee accommodation, secure cash transfer facilities.

## Reporting method

This aligns with the Network Rail Asset Reporting Manual reporting procedure for Station Facilities. The measure is reported giving a total of 30 outputs. Generally, there is the Stations Facilities Excel Database and the territories and managed stations input data into this Excel database with information coming from three sources; account surveyors, station facility owners through the landlords approval and station Change procedures, and project managers/building surveyors. There are continuous checks by Network Rail and the routes and the quinquennial station surveys also provide an additional check to changes in station facilities.

#### Results

Table 66 Access s	core				
Station category	2000/01	2001/02	2002/03	2003/04	2004/05
A – National hub	100 (955)	106.8 (1,020)	110.7 (1,057)	112.0 (1,070)	113.4 (1,083)
B – Regional hub	100 (1,026)	102.4 (1,051)	101.9 (1,045)	103.2 (1,059)	104.5 (1,072)
C – Important feeder	100 (2,272)	102.7 (2,334)	102.8 (2,336)	104.3 (2,369)	104.2 (2,368)
D – Medium, staffed	100 (1,959)	103.2 (2,022)	102.5 (2,008)	102.9 (2,016)	103.7 (2,032)
E – Small, staffed	100 (2,435)	101.2 (2,465)	101.7 (2,477)	103.6 (2,522)	103.4 (2,518)
F – Small, unstaffed	100 (3,775)	100.0 (3,774)	98.5 (3,720)	99.2 (3,745)	100.0 (3,776)

_Table 67 Co	omfort and convenience	e score			
Station category	2000/01	2001/02	2002/03	2003/04	2004/05
A – National hub	100 (5,545)	97.3 (5,396)	102.2 5,667)	106.8 (5,924)	106.8 (5,924)
B – Regional hub	100 (5,679)	103.6 5,885)	100.0 (5,678)	100.4 (5,702)	100.3 (5,697)
C – Important feede	r 100 (10,131)	100.2 10,151)	99.5 (10,081)	99.4 (10,074)	99.8 (10,115)
D – Medium, staffed	100 (3,963)	101.8 4,036)	101.2 (4,012)	101.8 (4,035)	101.8 (4,036)
E – Small, staffed	100 (4,694)	101.3 (4,754)	101.5 4,763)	103.6 (4,865)	105.0 (4,931)
F – Small, unstaffed	100 (2,631)	98.7 (2,596)	97.8 (2,574)	99.3 (2,612)	99.7 (2,623)

Table 68 Information and communications score					
Station category	2000/01	2001/02	2002/03	2003/04	2004/05
A – National hub	100 (2,149)	102.9 (2,212)	106.8 (2,995)	122.6 (2,635)	122.6 (2,635)
B – Regional hub	100 (1,860)	103.4 (1,923)	100.3 (1,865)	101.4 (1,886)	101.6 (1,890)
C – Important feeder	100 (3,803)	102.8 (3,909)	105.3 (4,005)	107.4 (4,084)	109.5 (4,163)
D – Medium, staffed	100 (2,738)	106.7 (2,921)	107.4 (2,941)	109.6 (3,001)	112.0 (3,067)
E – Small, staffed	100 (2,676)	101.9 (2,728)	103.7 (2,775)	104.7 (2,801)	106.3 (2,844)
F – Small, unstaffed	100 (49)	100.0 (49)	128.6 (63)	165.3 (81)	177.6 (87)

Table 69 In	ntegrated transport score	<b>=</b>			
Station category	2000/01	2001/02	2002/03	2003/04	2004/05
A – National hub	100 (603)	100.3 (605)	104.6 (631)	114.1 (688)	114.1 (688)
B – Regional hub	100 (1,062)	105.0 (1,115)	96.2 (1,022)	97.5 (1,035)	97.8 (1,039)
C – Important feede	er 100 (2,517)	100.2 (2,522)	99.2 (2,496)	100.0 (2,518)	101.6 (2,557)
D – Medium, staffed	100 (1,644)	102.6 (1,687)	102.3 (1,682)	104.3 (1,714)	106.1 (1,744)
E – Small, staffed	100 (1,373)	100.6 (1,381)	100.1 (1,374)	101.2 (1,390)	103.1 (1,415)
F – Small, unstaffed	100 (1,590)	99.1 (1,576)	98.1 (1,559)	98.2 (1,562)	98.2 (1,562)

Table 70 Sa	fety and security score				
Station category	2000/01	2001/02	2002/03	2003/04	2004/05
A – National hub	100 (15,919)	101.5 (16,161)	111.0 (17,670)	117.2 (18,649)	117.2 (18,649)
B – Regional hub	100 (12,462)	101.8 (12,681)	102.8 (12,812)	104.4 (13,012)	104.6 (13,040)
C – Important feede	r 100 (23,583)	102.1 (24,088)	103.4 (24,388)	107.2 (25,271)	109.1 (25,718)
D – Medium, staffed	100 (17,209)	102.9 (17,715)	103.7 (17,852)	104.9 (18,057)	107.3 (18,463)
E – Small, staffed	100 (21,568)	101.2 (21,822)	101.1 (21,812)	101.6 (21,921)	102.3 (22,065)
F – Small, unstaffed	100 (15,577)	100.2 (15,614)	98.9 (15,398)	99.4 (15,480)	99.8 (15,544)

Table 71	Network score				
All stations	2000/01	2001/02	2002/03	2003/04	2004/05
Network score	100	101.6	102.7	104.8	105.7
	(173,447)	(176,193)	(178,056)	(181,778)	(183,344)

There is no regulatory target for this measure.

## Reporting confidence

Reporting of M18 – Station Facilities score. We consider this can be reported at B2 confidence. Again there are issues with the scoring system, for example where distributed lighting is valued, but these should not mean our reporting is outwith the +/- 5% reporting band, broken down by station category and by theme. When totalled up for network scores, non-systematic error is cancelled and confidence in the score is increased.

## Significant changes since Annual Return 2004

The scores for 2000/01 are presented as an index of 100 for ease of onward tracking of performance. Scores for 2004/05 and preceding years are shown relative to the index base. The number of relevant assets in each category is shown in parenthesis.

Overall the scores for 2004/05 show the total asset units for all stations to have increased against the base of 2000/01 and generally show an incremental increase over the figures for 2003/04. The key themes which have contributed to this increase are information and communication, i.e. provision of customer information systems, and improvements to safety and security, i.e. lighting, CCTV. This is consistent with Network Rail's emphasis on continuing to work with our customers in improving passenger facilities at stations.

## Commentary

The scores for 2000/01 are presented as an index of 100 for ease of onward tracking of performance. Scores for 2004/05 and preceding years are shown relative to the index base. The number of relevant assets in each category is shown in parenthesis.

## **Light maintenance depot – condition index (M19)**

#### **Definition**

This measure assesses the overall average condition of light maintenance depots (LMDs) by providing, at each financial year-end, the number of depots in individual average condition ratings of I-5.

## Reporting method

This measure is similar to M17 Station Condition Index with light maintenance depots being inspected and surveyed and data on them being recorded within the Interim Data Capture system which is the interim solution to Atrium.

#### Results

Table 72	72 Light maintenance depot – Inspections and condition index					
Condition grade	2000/01	2000/02	2000/03	2000/04	2000/05	
	I-year total	2-year total	3-year total	4-year total	5-year total	
	no. of depots	no. of depots	no. of depots	no. of depots	no. of depots	
	(in each grade)	(in each grade)	(in each grade)	(in each grade)	(in each grade)	
					See	
2				14	'Commentary'	
3				22	below	
4				6		
5				0		
Total						
Average condition	grade 3.1	3.0	2.7	2.7		

Scoring scale: I good, 5 poor.

## Regulatory target

This is covered by "Other asset condition and serviceability" with no deterioration from 2003/04 levels i.e. 2.7.

All asset condition measures are subject to statistical variability caused by the accuracy of condition assessment (there is inevitably some subjectivity involved in condition surveys), and because not every asset is assessed each year. This "noise" is expressed as a tolerance when comparing actual values in this Annual Return with any regulatory target. The tolerance for the depot condition index is assessed as  $\pm$  0.1 on the target.

## Reporting confidence

See Commentary.

## Significant changes since Annual Return 2004

No significant changes since 2004 to report.

### Commentary

In 2004/05 17 depots out of a network total of 91 have been inspected (18% of the asset base against a target of 20%, which brings the percentage surveyed to 65% of the national portfolio since the quinquennial programme was instituted).

Whilst we have input the survey data into the database which holds the information, it has proved more difficult than we had expected to convert this into a series of condition scores for the depots inspected, through the software, and we are unable to report them for this year's surveys in time for publication. We are reviewing this, and will suitably amend the database structure to enable full reporting at future annual returns.

Based on the earlier surveys (covering 47% of the asset base) and our understanding of likely deterioration profile of the depot portfolio (countered by the works we have undertaken on the structures over the past year), our assessment of depot condition remains at 2.7, with confidence B3.

As with the M17 station condition measure, we are working with ORR to improve the M19 depot condition measure to improve its focus and usefulness. This work will substantially follow M17, and will take full account of the ongoing consultations with ORR on revisions to the Depots Code

## Section 4 – Activity volumes

## Introduction

This section provides data on the level of renewal activity on the network by giving volumes of work undertaken for ten separate measures, four for track renewals, one for signalling renewals and five for "Civils" (e.g. bridge) renewals.

For track activity volumes only, forecasts are also shown. A degree of variance from forecasts is expected as the details of the planned work are refined in response to more detailed site knowledge, and as engineering priorities are adjusted during the year. These priority changes may be in response to emerging urgent works, to changes in standards, or to changes in funding.

There are no forecasts for signalling renewals or the "Civils" renewals. This is because the delivery teams work to their budgets with part of their workbanks defined at the start of the year and the rest of the year's workbank for these volumes are defined in more detail as the designs are progressed during the year.

The volumes for 2004/05 have been provided for the network total and by Territory or by eight Operating Routes. Due to the re-structuring of the company, only westcoast route modernisation and the network totals for historical data have been included.

# Track renewals: (M20) rail renewed (M21) sleepers renewed and (M22) ballast renewed

## Commentary

In summary:

- rail volumes are 6% lower than forecast: 4% lower for WCRM and 7% lower for non-WCRM works
- sleeper volumes are 3% lower. I 3% higher for WCRM and 3% lower for non-WCRM works.
- ballast volumes are on target: 6% higher for WCRM and 2% lower for non-WCRM works.

WCRM volumes are generally higher than plan primarily due to the increases in scope associated with the Manchester Area renewals and delivery of the P1&2 Route 7 blockade works.

Non-WCRM volumes are lower than forecast due to access constraints, impact of detailed design requirements and ongoing efficiency reviews. Delivery by maintenance teams was also lower than originally planned. Western Territory volumes are higher than planned as a result of bringing forward certain work from 2005/06 in order to achieve significant delivery efficiencies.

# Rail renewed (M20)

## **Definition**

The total length of track in kilometres where re-railing has been carried out. This measure counts the total length of plain line track where both rails have been replaced; if one rail is replaced the length counts as half.

## **Results**

Table 73	Rail renewed						
		Actual 2000/01 (km)	Actual 2001/02 (km)	Actual 2002/03 (km)	Actual 2003/04 (km)	Business Plan forecast 2004/05 (km)	Actual 2004/05 (km)
WCRM		210	88	69	236	138	132
Non-WCRM							
London Nor	th Eastern					175	156
London Nor	th Western					157	141
Scotland						42	49
South East						238	199
Western						124	139
Network total		1,06 <del>4</del>	983	1,010	1,198	87 <del>4</del>	816
					-		
Maintenance							191

Note: There is no Business Plan forecast figure for maintenance renewals.

# Sleepers renewed (M21)

# **Definition**

The total length of track in kilometres where re-sleepering has been carried out.

# Results

Table 74	Sleepers rene	wed – all type	es				
		Actual 2000/0 I (km)	Actual 2001/02 (km)	Actual 2002/03 (km)	Actual 2003/04 (km)	Business Plan forecast 2004/05 (km)	Actual 2004/05 (km)
WCRM		122	169	137	223	135	152
Non-WCRM							
London Nor	th Eastern					130	122
London Nor	th Western					109	91
Scotland						29	33
South East						179	151
Western						113	121
Network total		475	636	666	837	695	670
Maintenance							86

Note: There is no Business Plan forecast figure for maintenance renewals.

Table 75	Concrete sleep	pers			
		Actual 2001/02 (km)	Actual 2002/03 (km)	Actual 2003/04 (km)	Actual 2004/05 (km)
WCRM		169	137	190	148
Non-WCRM					
London No	rth Eastern				48
London No	rth Western				38
Scotland					15
South East					125
Western					78
Network total		347	367	486	452

Table 76	Timber sleepers				
		Actual 2001/02 (km)	Actual 2002/03 (km)	Actual 2003/04 (km)	Actual 2004/05 (km)
WCRM		0	0	0	I
Non-WCRM					
London Nort	h Eastern				22
London Nort	h Western				0
Scotland					0
South East					4
Western					0
Network total		17	37	51	27

Table 77	Steel sleepers				
		Actual 2001/02 (km)	Actual 2002/03 (km)	Actual 2003/04 (km)	Actual 2004/05 (km)
WCRM		0	0	33	3
Non-WCRM					
London No	orth Eastern				52
London No	orth Western				53
Scotland					18
South East					22
Western					43
Network total		272	263	300	191

# **Ballast renewed (M22)**

## **Definition**

The total length of track, in kilometres, where re-ballasting has been carried out.

## **Results**

Table 78	Ballast renewed -	- all types					
	2	Actual 000/01 (km)	Actual 2001/02 (km)	Actual 2002/03 (km)	Actual 2003/04 (km)	Business Plan Forecast 2004/05 (km)	Actual 2004/05 (km)
WCRM		112	90	90	205	115	122
Non-WCRM							
London Nort	h Eastern					138	129
London Nort	h Western					105	97
Scotland						32	36
South East						178	158
Western						122	143
Network total		496	624	665	812	690	685
Maintenance							40

Note: I. There is no Business Plan forecast figure for Maintenance renewals.

2. Until the last few periods of 2004/05 WCRM ballast renewed was not separately categorised and the following three tables do not include 90km undifferentiated ballast renewed.

Table 79 Full ballast renewal by excavation		
	Actual 2003/04	Actual 2004/05
	(km)	(km)
WCRM	88	23
Non-WCRM	300	
London North Eastern		53
London North Western		43
Scotland		18
SE		126
Western		74
Network total	388	337

Table 80	Partial reballast (automatic ballast cleaning)		
		Actual 2003/04	Actual 2004/05
		(km)	(km)
WCRM		84	9
Non-WCRM		38	
London North Easterr	1		22
London North Weste	m		I
Scotland			2
South East			10
Western			35
Network total		122	79

Table 81 Scarify (reballas	t with steel sleeper relay)	
	Actual 2003/04	Actual 2004/05
	(km)	(km)
WCRM	32	0
Non-WCRM	267	
London North Eastern		54
London North Western		53
Scotland		16
South East		22
Western		34
Network total	299	179

# Switches and crossings renewed (M25)

The total number of switches and crossing (S&C) units that have been renewed. This measure records the number of units installed (i.e. not the number removed and replaced with plain line track). Partial renewals (i.e. of individual components) are included in Table 83.

#### Results

Table 82	S&C renewals					
		Actual 2001/02	Actual 2002/03	Actual 2003/04	Business Plan Forecast 2004/05	Actual 2004/05
WCRM		26	50	138	198	170
Non-WCRM						
London No	orth Eastern				73	56
London No	orth Western				84	99
Scotland					19	19
South East					92	92
Western					73	75
Network tota		136	25 <del>4</del>	373	539	511

Table 83	S&C partial renewals		
		Business Plan Forecast 2004/05	Actual 2004/05
WCRM			46
Non-WCRM			
London N	orth Eastern		
London N	orth Western		
Scotland			
South East	t		
Western		0	2
Network tota	1	0	48

## Commentary

Data is collected and collated by ten Integrated Management Teams and forwarded to the central Track Renewals Team in York. Data is collected on core data sheets that list all the individual jobs and give specification details. We have reasonable confidence in the data provided.

The non-WCRM planned volume exceeded plan by 2%.

At the time of publishing the Business Plan, eight additional units were included. This was later removed, as it was a double count of planned work.

# Signalling renewed (M24)

The total number of signalling equivalent units (SEUs) that have been renewed.

#### Results

Table 84	Signalling ren	iewed				
		Actual 2000/01	Actual 2001/02	Actual 2002/03	Actual 2003/04	Actual 2004/05
		(SEUs)	(SEUs)	(SEUs)	(SEUs)	(SEUs)
WCRM					203	915
Non-WCRM						
London N	Iorth Eastern				105	119
London N	lorth Western				184	414
Scotland					112	198
SE Anglia					19	14
SE Kent					7	
SE Sussex					<b>-</b> 172	2
SE Wesse	×				J	
Western					63	34
Network tota	al	1,338	1, <del>44</del> 0	810	742	1,635

## Commentary

In 2004/05 the major signalling schemes commissioned in LNE were Peterborough with 217 SEUs, and Scunthorpe with 215 SEUs. Both projects were interfaced solid state interlockings (SSI), meaning that the internal interlocking equipment only was replaced, interfaced to the existing external equipment. This technique replaces the life-expired interlocking wiring, leaving an upgrade path for later renewal of outside equipment and/or future upgrade to cab signalling systems such as ERTMS, should these be available in time.

On LNW and SE Kent, the major schemes were Bedford – Bletchley (120 SEUs) and Sheerness, (69 SEUs) where the second and third applications of the General Electric Transportation Systems (GETS) computer based interlockings were commissioned. These followed the successful introduction of the GETS interlocking product (VHLC) to the Norwich – Cromer scheme in 2003/04.

Also, on LNW, Wigan – Wallgate conventional route relay interlocking (RRI) and entrance – exit (NX) panel were commissioned controlling around 58 SEUs. The scheme included remodelling of the double junction into the carriage sidings, as well as the signalling renewal.

For the 2002/03 SEU numbers, the figures in previous Annual Returns were based on historic records, which took the SEU count for the financial year as the calendar year ie. for 2002 and not the financial year till April 2003. The figures also included CTRL and TPWS SEUs, which is also the situation with 2003/04.

We have improved the quality of our reporting against this measure for this Annual Return, though uncertainties remain in respect of quantifying the work qualifying (in terms of signalling equivalent units). Much of our signalling renewals work is related to the WCRM, and we consider reporting confidence is at B3.

# Bridge renewals and remediation (M23)

#### **Definition**

The total number and square area of bridge decks that have been subject to renewal or remediation, with total cost per scheme greater than £100k. The term 'bridge' includes over- and under- bridges, side of line bridges and footbridges.

#### **Results**

Table 85	Bridge renewa	ls and remediation -	- number by t	task category		
		Preventative 2004/05	Repair 2004/05	Strengthening 2004/05	Replacement 2004/05	Total 2004/05
WCRM		8	48	4	13	73
Non-WCRM						
London Nor	th East	2	17	10	15	44
London Nor	th Western	3	19	10	14	46
Scotland		0	1	3	6	10
South East		17	18	10	7	52
Western		4	19	7	5	35
Network total		34	122	44	60	260

Table 86	Bridge renewals and remediation – square area of deck repla	acement
		Actual sq m 2004/05
WCRM		
Non-WCRM		
London N	Iorth East	2299
London N	lorth Western	3202
Scotland		2971
South East	t	1120
Western		630
Network tota	al	10222

Note: Network total does not include WCRM.

# Commentary

Network Rail is the largest bridge owner in Britain. There are some 40,000 bridges (with some 68,000 spans) on the rail network. For non-WCRM during 2004/05 interventions (each costing more than £100k) were undertaken on 187 bridges; that is, less than 0.5% of the bridge stock. The number and volume were in line with the Business Plan. In 2003/04 interventions were undertaken at 143 sites. In 2003/04, the deck area replaced in the non-WCRM inventions was  $5,611 \text{ m}^2$ , the area in 2004/05 was greater at  $10,222 \text{ m}^2$ . These differences are not significant, they merely reflect variations in the type, size and technical complexities of the various projects undertaken from year to year.

# Culverts renewals and remediation (M26)

## **Definition**

The total number of culverts that have been renewed or where major components have been replaced with a total cost per scheme greater than £50k.

## Results

Table 87 Culverts renewed				
	Preventative 2004/05 (number)	Repair 2004/05 (number)	Replacement 2004/05 (number)	Actual 2004/05 (number)
WCRM	0	0	8	8
Non-WCRM				
London North East	0	0	1	
London North Western	0	0	I	I
Scotland	0	0	0	0
South East	0		I	2
Western	0	2	2	4
Network total	0	3	13	16

## Commentary

There are about 23,000 culverts on the rail network. For non-WCRM, during 2004/05 interventions (each costing more than £50k) were undertaken at eight sites: the volume and expenditure was in line with the Business Plan. In 2003/04 interventions were undertaken at seven (non-WCRM) sites. These low numbers reflect that, overall, the stock of culverts is in good condition.

# Retaining walls remediation (M27)

## **Definition**

The total number and area in square metres of retaining walls of scheme value greater than £50k where renewal works have been carried out.

#### Results

Table 88 Retaining walls renewed – schemes				
	Preventative 2004/05 (number)	Repair 2004/05 (number)	Replacement 2004/05 (number)	Actual 2004/05 (number)
WCRM	0	0	2	2
Non-WCRM				
London North East	0	0	I	
London North Western	0	0	I	
Scotland	0	0	0	0
South East	0	5	0	5
Western	0		0	
Network total	0	6	4	10

Table 89	Retaining wall renewed – area	
		Actual 2004/05
		(m²)
WCRM		
Non-WCRM		
London No	orth East	336
London No	orth Western	99
Scotland		0
South East		1800
Western		400
Network total		2635

Note: Network total does not include WCRM.

## Commentary

On the rail network there are about 17,000 retaining walls. For non-WCRM, during 2004/05 interventions (each costing more than £50k) were undertaken at eight sites: the volume and expenditure was in line with the Business Plan. In 2003/04 interventions were undertaken at five (non-WCRM) sites. The total areas treated in these works were 2,635  $m^2$  in 2004/05 and 8155  $m^2$  in 2003/04: the difference is that in 2003/04 preventative work was undertaken on one structure having a face area of 7,600  $m^2$ . The data reflect that, overall, the stock of walls is in good condition, but that works are sometimes required on particularly large structures.

# Earthwork remediation (M28)

#### **Definition**

The total number of earthwork schemes that have been subject to remediation, with total cost per scheme greater than £100k.

#### Results

Table 90 Earthworks renewals			
	Preventative 2004/05 (number)	Repair 2004/05 (number)	Actual 2004/05 (number)
WCRM	23	14	37
Non-WCRM			
London North East	15		16
London North Western	10	6	16
Scotland	20	0	20
South East	4	I	5
Western	6	6	12
Network total	78	28	106

## Commentary

The rail network has about 10,000 route kilometres of embankments and cuttings. The materials forming a substantial length of these earthworks are subject to deterioration through, for example, the effect of weather and traffic loading. Preventative works are therefore undertaken to ensure the safety and avoid disruption to train services. For non-WCRM, during 2004/05 interventions (each costing more than £100k) were undertaken at 69 sites. In 2003/04, interventions were undertaken at 102 (non-WCMR) sites. The variation is due mainly to the reduction from 56 to 14 in the number of repair works undertaken: the higher figure for 2003/04 was a consequence of the number of earthworks that required remediation as a result of the poor weather conditions that prevailed at times during that year.

# **Tunnel remediation (M29)**

#### **Definition**

The total number of remediation schemes on tunnels with a total cost per scheme greater than £50k.

#### Results

Table 91	Tunnel renewals			
		Preventative 2004/05 (number)	Repair 2004/05 (number)	Actual 2004/05 (number)
WCRM		I	6	7
Non-WCRM				
London N	orth East	3	7	10
London N	lorth Western	0	6	6
Scotland		3	4	7
South East	t		2	3
Western		4	[	5
Network tota	ત્રી	12	26	38

## Commentary

There are 700 tunnels of combined length 200 miles on the rail network. These tunnels are prone to degradation through, for example, the effects of water on their lining. For non-WCRM, during 2004/05 interventions (each costing more than  $\pounds$ 50k) were undertaken at 31 sites. In 2003/04, interventions were undertaken at 12 (non-WCRM) sites. The variation is due to an increase in both the number of preventative works and repair works. This is consistent with a shift in policy towards improving the condition of these assets rather than maintaining them at an inherited lower standard.

# Section 5 – Network capability

This section reports data on four measures of network capability:

- linespeed capability
- gauge capability
- route availability value
- electrified track capability

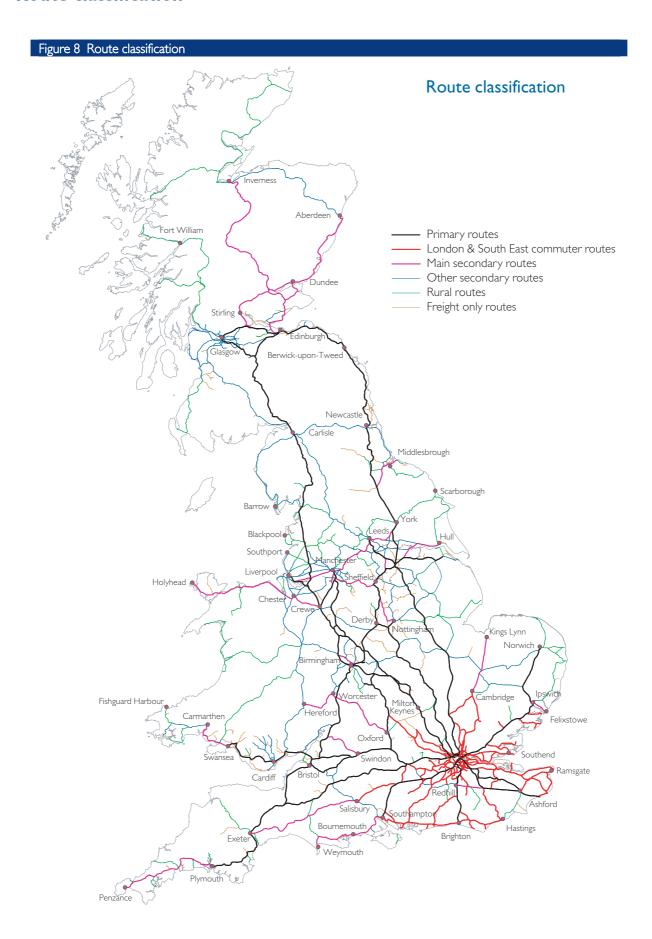
The diagram on the following page indicates our route classification.

During the year the source data and the processes related to it have been reviewed and improved. Anomalies have been identified and rectified, and ownership and control of gauge capability information is now all under the Track Geometry & Gauging National Specialist team. GEOGIS as the source data has also undergone data cleansing, principally in the form of the GEOGIS Data Improvement Programme.

## Regulatory targets

The regulatory target for each of the network capability measures is to maintain the capability of the network for broadly existing use at April 2001 levels (subject to network changes authorised under the Network Code).

# **Route classification**



# Linespeed capability (CI)

This is a measurement of the length of running track in kilometres in the following speed bands:

- up to 35 miles per hour
- 40-75 miles per hour
- 80-105 miles per hour
- 110-125 miles per hour
- over 125 miles per hour

The measure includes running lines and loops but excludes sidings and depots. Where differential speeds apply to a section of track, the highest linespeed shall be assessed for that section of track.

#### Results

Table 92 Linespeed capability		
Speed band (mph)	March 2004	March 2005
	km of track in each speed band	km of track in each speed band
Up to 35	5,570	4,163
40 – 75	16,585	16,927
80 – 105	6,994	7,650
110 – 125	2,415	2,741
Over 125	0	0
Total	31,564	31,482

The source data and the processes in place for determining these figures have been overhauled and revised during this year. The basis of the existing data, used in the reporting for previous years, has been comprehensively reviewed and significant anomalies in its collection and control were uncovered. In particular, the process used in previous years was understating the speed capability by failing to utilise the maximum speed on GEOGIS. A revised methodology has now been applied to use the correct speeds as per the definition and this correction accounts for much of the increase in the higher speeds. There has also been some further cleansing of the underlying base asset data framework within GEOGIS and other core systems.

The following tables indicate the linespeed changes by Territory, Operating Route and engineer's line reference and shows start location, length and speed band change. The first table indicates increases in linespeed and the second indicates linespeed decreases.

# Reporting confidence

This data is taken from GEOGIS, which has been subject to extensive data cleansing since the last year's Annual Return. Additionally, the method of calculation of this data has been revised to eliminate an approximation which was inherent in the previous process. It is considered that this data merits a confidence grade of B2.

Table 93	Linespeed change - increases						
							New
	Operating				Length	Old speed	speed
Territory	Route	ELR	Track	Start mileage	(miles.yards)	band	band

LINW								
WES   WES   MILN3   1100   288,0902   6.15   New   40.75     LNW   LNW   LEC2   1100   103,044   6066   80-110   110-125     LNE   LNE   LNE   KWS   2100   67,1606   0.625   0.35   40-75     LNW   LNW   LEC1   2100   31,132   2088   80-110   110-125     LNW   LNW   LEC1   2100   116,0506   1.121   80-110   110-125     LNW   LNW   LEC2   1100   116,0506   1.121   80-110   110-125     LNW   LNW   LEC1   1100   41,32   1.1166   80-110   110-125     LNW   LNW   LEC1   1100   40,0748   1.11   80-110   110-125     LNW   LNW   LEC1   1100   25,088   1.077   40-75   110-125     LNW   LNW   LEC1   2100   23,0242   1,0396   80-110   110-125     LNW   LNW   LEC2   2100   114,1594   1,033   80-110   110-125     LNW   LNW   LEC2   2100   114,1594   1,033   80-110   110-125     WES   WES   CNX   3100   40,176   0.1716   0.35   40-75     LNW   LNW   LEC1   2100   77,088   0.1386   80-110   110-125     LNW   LNW   LEC1   2100   77,088   0.1386   80-110   110-125     LNW   LNW   LEC1   2100   77,088   0.1386   80-110   110-125     LNW   LNW   LEC1   2100   81,077   0.1122   40-75   110-125     LNW   LNW   LEC1   2100   81,077   0.1122   40-75   110-125     LNW   LNW   CMD1   1100   13,0044   0.1122   40-75   80-110     WES   WES   BSW   1100   40,0248   0.1041   New   40-75     LNW   LNW   CMD1   1100   77,088   0.099   80-110   110-125     LNW   LNW   CMD1   1100   77,088   0.099   80-110   110-125     LNW   LNW   CMD2   1100   27,1452   0.0638   80-110   110-125     LNW   LNW   CMD2   2100   27,1452   0.0638   80-110   110-125     LNW   LNW   CMD2   1100   26,1056   0.066   40-75   110-125     LNW   LNW   CMD2   1100   20,0244   0.0572   0.35   40-75     LNW   LNW   CMD2   1100   20,0244   0.0572   0.35   40-75     LNW   LNW   CMD2   1100   28,0506   0.0374   80-110   110-125     LNW   LNW   CMD1   2100   13,0014   0.0339   40-75   80-110     LNW   LNW   CMD1   2100   13,0014   0.0339   40-75   80-110     LNW   LNW   CMD1   2100   13,0014   0.0339   40-75   80-110     LNW   LNW   CMD1   2100   13,0014   0.0339   40-75   80-	LNW	LNW	LEC4	1100	140.0638	15.0638	80-110	110-125
LNW	LNW	LNW	LEC2	2100	102.165	6.1716	80-110	110-125
LNW	WES	WES	MLN3	1100		6.15	New	40-75
LNW								
LNE		LNW						
LNW								
LNW								
LNW LNW LECI 1100 4.132 1.1166 80-110 110-125 LNW LNW LECI 1100 40.0748 1.11 80-110 110-125 LNW LNW CMD2 2100 25.088 1.077 40-75 110-125 LNW LNW LECI 2100 23.0242 1.0396 80-110 110-125 LNW LNW LECI 2100 40.0748 1.133 80-110 110-125 LNW LNW LECI 2100 72.088 1.033 80-110 110-125 LNW LNW LECI 2100 27.088 0.1386 80-110 110-125 LNW LNW LECI 2100 27.088 0.1386 80-110 110-125 SCO SCO GNN 3300 0 0.12 New 0-35 LNW LNW LECI 2100 81.077 0.1122 40-75 110-125 LNW LNW LECI 2100 81.077 0.1122 40-75 110-125 LNW LNW CMD1 1100 13.0044 0.1122 40-75 110-125 LNW LNW CMD1 1100 40.248 0.1041 New 40-75 LNW LNW LECI 1100 27.088 0.099 80-110 110-125 SCO SCO MLA 3400 0.048 0.099 80-110 110-125 SCO SCO MLA 3400 0.048 0.099 40-75 80-110 WES WES BGL2 2500 98.1373 0.0781 0-35 40-75 LNW LNW CMD1 1100 7.154 0.0792 40-75 80-110 WES WES BGL2 2500 98.1373 0.0781 0-35 40-75 LNW LNW LECI 2100 102.0946 0.0704 80-110 110-125 LNW LNW CMD2 1100 26.1056 0.066 40-75 110-125 LNW LNW CMD2 1100 26.1056 0.066 40-75 110-125 LNW LNW LECI 2100 101.1166 0.066 80-110 110-125 LNW LNW LECI 2100 101.1166 0.066 80-110 110-125 LNW LNW LECI 2100 101.1166 0.066 80-110 110-125 LNW LNW LECI 2100 51.166 0.0688 80-110 110-125 LNW LNW CMD2 2100 27.1452 0.0638 80-110 110-125 LNW LNW LECI 2100 101.1166 0.066 80-110 110-125 LNW LNW CMD2 2100 27.1452 0.0638 80-110 110-125 LNW LNW CMD2 1100 8.1232 0.0572 0-35 40-75 LNW LNW LECI 2100 101.1166 0.0668 80-110 110-125 LNW LNW CMD2 1100 100.00044 0.00033 80-110 110-125 LNW LNW CMD2 1100 100.00044 0.00033 80-110 110-125 LNW LNW CMD2 1100 100.00044 0.00033 80-110 110-125 LNW LNW CMD2 1100 100.00044 0.00038 80-110 110-125 LNW LNW CMD2 1100 100.00044 0.00038 80-110 110-125 LNW LNW CMD2 1100 100.00044 0.00008 80-110 110-125 LNW LNW CMD2 1100 100.00044 0.00008 80-110 110-125 LNW LNW CMD2 1100 100.00044 0.00008 80-110 110-125 LNW LNW CMD2 1100 10.0008 0.0008 80-110 110-125 LNW LNW CMD2 1100 10.0008 0.0008 40-75 80-110 LNW LNW CMD2 1100 10.0008 0.0008 40-75 80-110 LNW LNW CMD2 1100 10.0008 0.0008 40-75 80-110 LNW LNW CMD2 1000 10.0008 0.00008								
LNW								
LNW								
LNW								
LNW								
WES   WES   CNX   3100   4.0176   0.1716   0.35   40.75								
LNW								
SCO   SCO   GNN   3300   0   0.12   New   0-35								
LNW								
LINW								
WES   WES   BSW   1100								
LINW								
SCO         SCO         MLA         3400         0.048         0.092         New         40-75           LNW         LNW         CMDI         1100         7.154         0.0792         40-75         80-110           WES         WES         BGL2         2500         98.1373         0.0781         0-35         40-75           LNW         LNW         LNW         CMD2         1100         102.0946         0.0704         80-110         110-125           LNW         LNW         CMD2         1100         26.1056         0.066         40-75         110-125           WES         WES         DJP         3100         109.099         0.066         40-75         110-125           LNW         LNW         LEC2         1100         101.166         0.066         80-110         110-125           LNW         LNW         CMD2         2100         27.1452         0.0638         80-110         110-125           LNW         LNW         LNW         LNW         LNW         100-125         1100         20.0638         80-110         110-125           LNW         LNW         LNW         LNW         2100         8.1232         0.0572         0								
LINW								
WES         WES         BGL2         2500         98.1373         0.0781         0.35         40-75           LNW         LNW         LEC2         2100         102.0946         0.0704         80-110         110-125           LNW         LNW         CMD2         1100         26.1056         0.066         40-75         110-125           WES         WES         DJP         3100         109.099         0.066         0-35         40-75           LNW         LNW         LEC2         1100         101.1166         0.066         0-35         40-75           LNW         LNW         CMD2         2100         27.1452         0.0638         80-110         110-125           LNW         LNW         LEC1         2100         5.1166         0.0638         80-110         110-125           LNW         LNW         WDJ2         2200         183.0484         0.0616         0-35         40-75           LNW         LNW         MDD2         1100         20.0264         0.0572         0-35         40-75           LNW         LNW         CMD2         2100         14.0594         0.0528         40-75         80-110           LNW         <								
LNW								
LNW								
WES         WES         DJP         3100         109.099         0.066         0-35         40-75           LNW         LNW         LRW         LEC2         1100         101.1166         0.066         80-110         110-125           LNW         LNW         CMD2         2100         27.1452         0.0638         80-110         110-125           LNW         LNW         LEC1         2100         5.1166         0.0638         80-110         110-125           LNW         LNW         WDJ2         2200         183.0484         0.0616         0-35         40-75           LNW         LNW         BBM         2100         8.1232         0.0572         0-35         40-75           LNW         LNW         CMD2         1100         20.0264         0.0572         0-35         40-75           LNW         LNW         CMD1         2100         14.0594         0.0528         40-75         80-110           LNW         LNW         CMD2         2100         20.0264         0.0528         0-35         40-75           LNW         LNW         CMD1         2100         28.0572         0.0484         80-110         110-125 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
LNW								
LNW								
LNW         LNW         LECI         2100         5.1166         0.0638         80-110         110-125           LNW         LNW         WDj2         2200         183.0484         0.0616         0-35         40-75           LNW         LNW         BBM         2100         8.1232         0.0572         0-35         40-75           LNW         LNW         CMD2         1100         20.0264         0.0572         0-35         40-75           LNW         LNW         CMD1         2100         14.0594         0.0528         40-75         80-110           LNW         LNW         CMD2         2100         20.0264         0.0528         0-35         40-75           LNW         LNW         CMD1         2100         8.0572         0.0484         80-110         110-125           LNW         LNW         CMD1         1100         14.0638         0.0418         40-75         80-110           LNW         LNW         CMD2         2100         18.066         0.0418         40-75         80-110           LNW         LNW         LEC1         2100         28.0506         0.0374         80-110         110-125           WES <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
LNW         LNW         WDJ2         2200         183.0484         0.0616         0-35         40-75           LNW         LNW         BBM         2100         8.1232         0.0572         0-35         40-75           LNW         LNW         CMD2         1100         20.0264         0.0572         0-35         40-75           LNW         LNW         CMD1         2100         14.0594         0.0528         40-75         80-110           LNW         LNW         CMD2         2100         20.0264         0.0528         0-35         40-75           LNW         LNW         CMD1         2100         8.0572         0.0484         80-110         110-125           LNW         LNW         CMD1         1100         14.0638         0.0418         40-75         80-110           LNW         LNW         CMD2         2100         18.066         0.0418         40-75         80-110           LNW         LNW         LEC1         2100         28.0506         0.0374         80-110         110-125           WES         WES         FEC         2100         113.0011         0.0339         New         40-75           LNW         LN								
LNW         LNW         BBM         2100         8.1232         0.0572         0-35         40-75           LNW         LNW         CMD2         1100         20.0264         0.0572         0-35         40-75           LNW         LNW         CMD1         2100         14.0594         0.0528         40-75         80-110           LNW         LNW         CMD2         2100         20.0264         0.0528         0-35         40-75           LNW         LNW         CMD1         2100         8.0572         0.0484         80-110         110-125           LNW         LNW         CMD1         1100         14.0638         0.0418         40-75         80-110           LNW         LNW         CMD2         2100         18.066         0.0418         40-75         80-110           LNW         LNW         LEC1         2100         28.0506         0.0374         80-110         110-125           WES         WES         FEC         2100         113.0011         0.0339         New         40-75           LNW         LNW         LEC3         1100         133.0154         0.033         40-75         80-110           LNW         L								
LNW         LNW         CMD2         1100         20.0264         0.0572         0-35         40-75           LNW         LNW         CMD1         2100         14.0594         0.0528         40-75         80-110           LNW         LNW         CMD2         2100         20.0264         0.0528         0-35         40-75           LNW         LNW         CMD1         2100         8.0572         0.0484         80-110         110-125           LNW         LNW         CMD1         1100         14.0638         0.0418         40-75         80-110           LNW         LNW         CMD2         2100         18.066         0.0418         40-75         80-110           LNW         LNW         LEC1         2100         28.0506         0.0374         80-110         110-125           WES         WES         FEC         2100         113.0011         0.0339         New         40-75           LNW         LNW         LEC3         1100         133.0154         0.033         40-75         80-110           LNW         LNW         CMD1         2100         83.088         0.0333         40-75         80-110           LNW <t< td=""><td></td><td></td><td>•</td><td></td><td></td><td></td><td></td><td></td></t<>			•					
LNW         LNW         CMD1         2100         14.0594         0.0528         40-75         80-110           LNW         LNW         CMD2         2100         20.0264         0.0528         0-35         40-75           LNW         LNW         CMD1         2100         8.0572         0.0484         80-110         110-125           LNW         LNW         CMD1         1100         14.0638         0.0418         40-75         80-110           LNW         LNW         CMD2         2100         18.066         0.0418         40-75         80-110           LNW         LNW         LEC1         2100         28.0506         0.0374         80-110         110-125           WES         WES         FEC         2100         113.0011         0.0339         New         40-75           LNW         LNW         LEC3         1100         133.0154         0.033         40-75         80-110           LNW         LNW         CMD1         2100         83.088         0.033         40-75         80-110           LNW         LNW         CMD1         2100         1.0088         0.0308         40-75         80-110           LNW <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
LNW         LNW         CMD2         2100         20.0264         0.0528         0-35         40-75           LNW         LNW         CMD1         2100         8.0572         0.0484         80-110         110-125           LNW         LNW         CMD1         1100         14.0638         0.0418         40-75         80-110           LNW         LNW         CMD2         2100         18.066         0.0418         40-75         80-110           LNW         LNW         LEC1         2100         28.0506         0.0374         80-110         110-125           WES         WES         FEC         2100         113.0011         0.0339         New         40-75           LNW         LNW         LEC3         1100         133.0154         0.033         40-75         110-125           WES         WES         SWY         2100         83.088         0.033         40-75         80-110           LNW         LNW         CMD1         2100         1.0088         0.0308         40-75         80-110           LNW         LNW         CMD2         2100         36.044         0.0286         80-110         110-125           LNW         <								
LNW         LNW         CMDI         2100         8.0572         0.0484         80-110         110-125           LNW         LNW         CMDI         1100         14.0638         0.0418         40-75         80-110           LNW         LNW         CMD2         2100         18.066         0.0418         40-75         80-110           LNW         LNW         LEC1         2100         28.0506         0.0374         80-110         110-125           WES         WES         FEC         2100         113.0011         0.0339         New         40-75           LNW         LNW         LEC3         1100         133.0154         0.033         40-75         110-125           WES         WES         SWY         2100         83.088         0.033         40-75         80-110           LNW         LNW         CMD1         2100         1.0088         0.0308         40-75         80-110           LNW         LNW         CMD1         2100         13.0044         0.0286         80-110         110-125           LNW         LNW         CMD2         2100         36.044         0.0286         80-110         110-125           SCO								
LNW         LNW         CMDI         1100         14.0638         0.0418         40-75         80-110           LNW         LNW         CMD2         2100         18.066         0.0418         40-75         80-110           LNW         LNW         LECI         2100         28.0506         0.0374         80-110         110-125           WES         WES         FEC         2100         113.0011         0.0339         New         40-75           LNW         LNW         LEC3         1100         133.0154         0.033         40-75         110-125           WES         WES         SWY         2100         83.088         0.033         40-75         80-110           LNW         LNW         CMD1         2100         1.0088         0.0308         40-75         80-110           LNW         LNW         CMD1         2100         13.0044         0.0286         80-110         110-125           LNW         LNW         CMD2         2100         36.044         0.0286         80-110         110-125           SCO         SCO         MLA         3400         0.021         0.027         New         40-75           LNW         L								
LNW         LNW         CMD2         2100         18.066         0.0418         40-75         80-110           LNW         LNW         LECI         2100         28.0506         0.0374         80-110         110-125           WES         WES         FEC         2100         113.0011         0.0339         New         40-75           LNW         LNW         LEC3         1100         133.0154         0.033         40-75         110-125           WES         WES         SWY         2100         83.088         0.033         40-75         80-110           LNW         LNW         CMD1         2100         1.0088         0.0308         40-75         80-110           LNW         LNW         CMD1         2100         13.0044         0.0286         80-110         110-125           LNW         LNW         CMD2         2100         36.044         0.0286         80-110         110-125           SCO         SCO         MLA         3400         0.021         0.027         New         40-75           LNW         LNW         LEC1         1200         17.1078         0.0242         40-75         80-110           LNW         L								
LNW         LNW         LECI         2100         28.0506         0.0374         80-110         110-125           WES         WES         FEC         2100         113.0011         0.0339         New         40-75           LNW         LNW         LEC3         1100         133.0154         0.033         40-75         110-125           WES         WES         SWY         2100         83.088         0.033         40-75         80-110           LNW         LNW         CMD1         2100         1.0088         0.0308         40-75         80-110           LNW         LNW         CMD1         2100         13.0044         0.0286         80-110         110-125           LNW         LNW         CMD2         2100         36.044         0.0286         80-110         110-125           SCO         SCO         MLA         3400         0.021         0.027         New         40-75           LNW         LNW         LEC1         1200         17.1078         0.0242         40-75         80-110           LNW         LNW         PBJ         2800         7.1164         0.0224         New         0-35           LNW         LNW <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
WES         WES         FEC         2100         113.0011         0.0339         New         40-75           LNW         LNW         LEC3         1100         133.0154         0.033         40-75         110-125           WES         WES         SWY         2100         83.088         0.033         40-75         80-110           LNW         LNW         CMD1         2100         1.0088         0.0308         40-75         80-110           LNW         LNW         CMD1         2100         13.0044         0.0286         80-110         110-125           LNW         LNW         CMD2         2100         36.044         0.0286         80-110         110-125           SCO         SCO         MLA         3400         0.021         0.027         New         40-75           LNW         LNW         LEC1         1200         17.1078         0.0242         40-75         80-110           LNW         LNW         PBJ         2800         7.1164         0.0224         New         0-35           LNW         LNW         DCL         2100         129.11         0.022         0-35         40-75           LNW         LNW								
LNW         LNW         LEC3         1100         133.0154         0.033         40-75         110-125           WES         WES         SWY         2100         83.088         0.033         40-75         80-110           LNW         LNW         CMD1         2100         1.0088         0.0308         40-75         80-110           LNW         LNW         CMD1         2100         13.0044         0.0286         80-110         110-125           LNW         LNW         CMD2         2100         36.044         0.0286         80-110         110-125           SCO         SCO         MLA         3400         0.021         0.027         New         40-75           LNW         LNW         LEC1         1200         17.1078         0.0242         40-75         80-110           LNW         LNW         PBJ         2800         7.1164         0.0224         New         0-35           LNW         LNW         DCL         2100         129.11         0.022         0-35         40-75           LNW         LNW         DCL         1100         129.11         0.022         New         0-35           SCO         SCO								
WES         WES         SWY         2100         83.088         0.033         40-75         80-110           LNW         LNW         CMD1         2100         1.0088         0.0308         40-75         80-110           LNW         LNW         CMD1         2100         13.0044         0.0286         80-110         110-125           LNW         LNW         CMD2         2100         36.044         0.0286         80-110         110-125           SCO         SCO         MLA         3400         0.021         0.027         New         40-75           LNW         LNW         LEC1         1200         17.1078         0.0242         40-75         80-110           LNW         LNW         PBJ         2800         7.1164         0.0224         New         0-35           LNW         LNW         DCL         2100         129.11         0.022         0-35         40-75           LNW         LNW         DCL         1100         129.11         0.022         0-35         40-75           SCO         SCO         MLA         3400         0.14         0.022         New         0-35								
LNW         LNW         CMD1         2100         1.0088         0.0308         40-75         80-110           LNW         LNW         CMD1         2100         13.0044         0.0286         80-110         110-125           LNW         LNW         CMD2         2100         36.044         0.0286         80-110         110-125           SCO         SCO         MLA         3400         0.021         0.027         New         40-75           LNW         LNW         LEC1         1200         17.1078         0.0242         40-75         80-110           LNW         LNW         PBJ         2800         7.1164         0.0224         New         0-35           LNW         LNW         DCL         2100         129.11         0.022         0-35         40-75           LNW         LNW         DCL         1100         129.11         0.022         0-35         40-75           SCO         SCO         MLA         3400         0.14         0.022         New         0-35								
LNW         LNW         CMD1         2100         13.0044         0.0286         80-110         110-125           LNW         LNW         CMD2         2100         36.044         0.0286         80-110         110-125           SCO         SCO         MLA         3400         0.021         0.027         New         40-75           LNW         LNW         LEC1         1200         17.1078         0.0242         40-75         80-110           LNW         LNW         PBJ         2800         7.1164         0.0224         New         0-35           LNW         LNW         DCL         2100         129.11         0.022         0-35         40-75           LNW         LNW         DCL         1100         129.11         0.022         0-35         40-75           SCO         SCO         MLA         3400         0.14         0.022         New         0-35								
LNW         LNW         CMD2         2100         36.044         0.0286         80-110         110-125           SCO         SCO         MLA         3400         0.021         0.027         New         40-75           LNW         LNW         LEC1         1200         17.1078         0.0242         40-75         80-110           LNW         LNW         PBJ         2800         7.1164         0.0224         New         0-35           LNW         LNW         DCL         2100         129.11         0.022         0-35         40-75           LNW         LNW         DCL         1100         129.11         0.022         0-35         40-75           SCO         SCO         MLA         3400         0.14         0.022         New         0-35								
SCO         SCO         MLA         3400         0.021         0.027         New         40-75           LNW         LNW         LEC1         1200         17.1078         0.0242         40-75         80-110           LNW         LNW         PBJ         2800         7.1164         0.0224         New         0-35           LNW         LNW         DCL         2100         129.11         0.022         0-35         40-75           LNW         LNW         DCL         1100         129.11         0.022         0-35         40-75           SCO         SCO         MLA         3400         0.14         0.022         New         0-35								
LNW         LNW         LECI         1200         17.1078         0.0242         40-75         80-110           LNW         LNW         PBJ         2800         7.1164         0.0224         New         0-35           LNW         LNW         DCL         2100         129.11         0.022         0-35         40-75           LNW         LNW         DCL         1100         129.11         0.022         0-35         40-75           SCO         SCO         MLA         3400         0.14         0.022         New         0-35								
LNW         LNW         PBJ         2800         7.1164         0.0224         New         0-35           LNW         LNW         DCL         2100         129.11         0.022         0-35         40-75           LNW         LNW         DCL         1100         129.11         0.022         0-35         40-75           SCO         SCO         MLA         3400         0.14         0.022         New         0-35								
LNW         LNW         DCL         2100         129.11         0.022         0-35         40-75           LNW         LNW         DCL         1100         129.11         0.022         0-35         40-75           SCO         SCO         MLA         3400         0.14         0.022         New         0-35								
LNW         LNW         DCL         1100         129.11         0.022         0-35         40-75           SCO         SCO         MLA         3400         0.14         0.022         New         0-35			•					
SCO SCO MLA 3400 0.14 0.022 New 0-35								
3CO 3CO IYILA 3400 U 0.021 New 0-35								
	<u> </u>	300	I*ILA	3400	U	0.021	INEW	U-35

Table 94	Linespee	ed change - d	ecreases				
	Operating				Length	Old speed	New speed
Territory	Route	ELR	Track	Start mileage	(miles.yards)	band	band
WES	WES	ANL	1100	5.044	0.088	40-75	0-35
WES	WES	ANL	1100	5.132	1.0693	40-75	0-35
LNW	LNW	CGJ7	2100	14.0418	4.066	110-125	80-110
LNW	LNW	CGJ7	1100	14.044	4.0638	110-125	80-110
LNW	LNW	CGJ7	1100	20.0286	1.1298	110-125	80-110
LNW	LNW	CGJ7	1100	31.0308	5.132	110-125	80-110
LNW	LNW	CGJ7	2100	32.165	4.011	110-125	80-110
LNW	LNW	CGJ7	1100	36.1628	0.0638	110-125	80-110
LNW	LNW	CGJ7	2100	38.0704	2.0726	110-125	80-110
LNW	LNW	CGJ7	1100	38.0704	3.1364	110-125	80-110
LNW	LNW	CGJ7	2100	44.1254	2.0462	110-125	80-110
LNW	LNW	CGJ7	1100	44.1254	2.0704	110-125	80-110
LNW	LNW	CGJ7	1100	62.132	0.1166	110-125	80-110
LNW	LNW	CGJ7	2100	62.132	0.1628	110-125	80-110
LNW	LNW	CGJ7	2100	64.0704	2.1056	110-125	80-110
LNW	LNW	CGJ7	1100	64.088	2.088	110-125	80-110
LNW	LNW	CMDI	2100	1.0396	1.0286	110-125	80-110
LNW	LNW	CMP2	1800	188.0286	0.0616	40-75	0-35
LNW	LNW	CMP2	3202	188.066	0.0242	40-75	0-35
LNE	LNE	DSN2	1100	11.044	0.05	40-75	0-35
LNE	LNE	KWS	1100	67.121	0.225	40-75	0-35
LNE	LNE	KWS	2100	67.1232	0.2125	40-75	0-35
LNW	LNW	LECI	2200	21	0.033	80-110	40-75
LNW	LNW	LECI	1200	27.1386	0.0396	80-110	40-75
LNW	LNW	LECI	2100	28.011	0.0418	110-125	80-110
LNW	LNW	LECI	2100	42.0088	0.0396	110-125	80-110
LNW	LNW	LEC2	1100	110.0836	0.1342	110-125	80-110
LNW	LNW	LEC2	1100	116.0506	1.121	110-125	80-110
LNW	LNW	LEC2	2100	116.0616	0.055	110-125	80-110
LNW	LNW	LEC3	1100	133.0176	0.0308	110-125	40-75
LNW	LNW	LEC3	2100	133.0176	0.0572	110-125	40-75
LNW	LNW	LEC5	2100	157.0704	0.0264	110-125	80-110
LNW	LNW	MPR3	3400	13.1716	0.0396	40-75	0-35
SEA	SU	NFE	3400	18.055	0.0462	40-75	0-35
LNE	LNE	NOC	3700	14.1572	0.0568	40-75	0-35
LNE	LNE	NOC	3700	14.1672	0.0875	40-75	0-35
LNE	LNE	SMJ3	3700	15.016	0.0318	40-75	0-35
LNE	LNE	TCC	2300	122.1078	1.1125	40-75	0-35
LNE	LNE	TCC	2300	123.1276	0.029	40-75	0-35
LNE	LNE	TCC	2300	123.1327	0.121	40-75	0-35
LNW	LNW	WBS3	1100	18.022	0.0242	40-75	0-35

## Commentary

The principal change in the year has been a general upward movement of reported line speed capability largely as a result of the changed methodology. The net effect of this change is to move some 1,400 kilometres of track from the lowest category to the next two categories. The reduction in the network total is entirely attributable to cleansing and verification of the base data.

While there have been numerous minor alterations to speed restrictions, over short lengths of route and largely without affecting speed range, across the network there have been no significant changes to the overall line speed of operational routes. Notable changes include increases in local maximum speeds associated with the re-doubling of the West of England Main Line (Probus to Burngalow), Clifton Down Tunnel, and West Coast Main Line route improvements between Hemel Hempstead and Norton Bridge, and Colwich and Cheadle Hulme.

# Gauge capability (C2)

This is a measurement of the length of route in kilometres capable of accepting different freight vehicle types and loads by reference to size (gauge). This measurement is reported against five gauge bands:

- W6, height of vehicle (h)3338mm- width of vehicle (w)2600mm
- W7, (h)3531mm (w)2438mm
- W8, (h)3618mm (w)2600mm
- W9, (h)3695mm (w)2600mm
- W10, (h)3900mm (w)2500mm

#### Results

Table 95	Gauge capability			
Gauge band		March 2003	March 2004	March 2005
		km of route in each	km of route in each	km of route in each
		gauge band	gauge band	gauge band
W6A			5,223	4,955
W6 and W7			2,284	2,794
W8			6,340	5,648
W9			2,483	1,714
WIO and W6A			-	6
W10 and W8			-	60
W9 and W10			163	939
Total		16,670	16,493	16,116

## Reporting Confidence

This data merits a confidence grade of B3 because of the recent revision to both the organisation and the process, and a further review of data will take place in 2005/06.

## Commentary

The source data and the processes in place for determining these figures have been overhauled and revised during this year. In particular the ownership and control of all gauge capability information has been brought together within the Track Geometry & Gauging National Specialist Team, with direct traceable links from the issue of formal Certificates of Gauging Authority permitting the enhanced traffic. The basis of the existing data, used in the reporting for previous years, has been comprehensively reviewed and significant anomalies in its collection and control have been uncovered. In addition there has been some further cleansing of the underlying base asset data framework within GEOGIS and other core systems.

In particular, the basic network framework being used was found to contain many routes and branch lines which were no longer in operational use. These routes, accounting for the change to the overall total, and primarily of W6A to W8 profile capability, have now been removed. It would also appear that there may have been some confusion in the application of the framework of standard profiles especially at the level of W8. In addition, certain upgrading changes, principally associated with major projects such as the West Coast Main Line, have not always been rigorously reported in the relevant year.

As a result of this overhaul, rigorous processes are now in place to ensure improved reporting of changes affecting this measure in future years.

There has been no reduction in the gauge capability of sections of route across the network as measured against the available capability set out within the Sectional Appendices. Any apparent downward changes are entirely attributable to cleansing and verification of the base data.

Significant enhancements have been made, during the year, to gauge capability in increases to W10 for the Felixstowe (and Harwich) to Nuneaton (and Bescot and Lawley Street depots in Birmingham) via Forest Gate, Stratford, Camden, and WCML. Enhancements have also been undertaken to diversionary paths associated with the West Coast Main Line, including Winwick to Golbourne Junctions (via Newton-le-Willows).

# Route availability value (C3)

This is a measurement of the length of track in kilometres capable of accepting different loaded vehicle types by reference to the structures route availability (RA) value. There are three RA value bands:

- RAI-6
- RA 7-9
- RAI0

This measure represents the lesser of the maximum single axle weight or the maximum equivalent load effect of a whole vehicle for underline bridges and structures on a route, specified in the definitive operating publication.

#### Results

Table 96	Structures route availability		
RA bands	March 2003	March 2004	March 2005
	km of track in each RA	km of track in each RA	km of track in each RA
	band	band	band
RA 1-6	2,411	2,375	2,529
RA 7-9	24,262	26,297	26,319
RA 10	4,734	2,585	2,634
Total	31,407	31,257	31,482

# Commentary

This data is calculated from the source data for RA, which is now managed by the Head of Civil Engineering, combined with data on GEOGIS for the mileage of running line for each ELR.

# **Electrified track capability (C4)**

This is a measurement of the length of electrified track in kilometres in the following bands:

- overhead line at 25kV A.C.
- third rail 650/750V D.C.
- 1500V D.C. overhead

The measurement includes the length of running track, including loops but excluding sidings and depots. Lengths of track that have more than one type of electrification count towards each of the respective electrification types. In addition, line that is not energised and permanently earthed is not included.

#### Results

Table 97 Electrification capability		
Туре	March 2004	March 2005
	km of electrified track	km of electrified track
25 kV A.C. overhead	7,780	7,748
3 <sup>rd</sup> rail 650/750V D.C.	4,483	4,497
Dual A.C, overhead/3 <sup>rd</sup> rail D.C.	33	35
1500V D.C. overhead	19	39
Total electrified	12,315	12,319
Non- electrified	19,249	19,163
TOTAL	31,564	31,482

## Reporting confidence

This data is taken from GEOGIS, which has been subject to extensive data cleansing since the last year's Annual Return. Additionally, the method of calculation of this data has been revised to eliminate an approximation which was inherent in the previous process. All changes in capability since last year are accounted for by these improvements. In consequence it is considered that this data merits a confidence grade of B2.

#### Commentary

No material changes to electrified line capability have been implemented in 2004/05. A new GEOGIS code has been created for the I500v DC overhead line to permit improved accuracy in future. This was not available for these figures which therefore required a manual correction. It is intended to do further analysis and correction of GEOGIS data in 2005/06 which may make further minor changes to these figures.

# Section 6 – Finance and efficiency

This section compares the actual expenditure on renewals, enhancements and maintenance on the network during the year 2004/05 with the projections in the 2004 Business Plan.

All financial figures shown are at 2004/05 prices and are rounded to the nearest £1 million (unless otherwise stated). As a result of rounding, totals may not appear to be the exact sum of the individual lines, and an entry of "-" indicates spend between £0 and £0.5 million.

The Business Plan is reconciled against the 26 strategic routes for renewals and enhancements. The 26 routes align closely to the traffic flows in the planning areas, and form the basis of Route Utilisation Strategies (RUSs).

There is a separate page for maintenance, as maintenance on the network is done by area rather than by strategic route.

Section 6 also includes information on our current efficiency position.

#### **Network total**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Maintenance	1,290	1,271	(19)
Renewals			
Track	628	609	(19)
Signalling	309	183	(126)
Structures	310	263	(47)
Electrification	49	26	(23)
Plant and machinery	184	77	(107)
Information technology	128	86	(42)
Telecoms	231	201	(30)
Stations	135	124	(11)
Depots	29	29	-
Lineside buildings	17	19	2
Other	5	-	(5)
Total renewals (non-WCRM)	2,025	1,617	(408)
Renewals (WCRM)	1,080	1,048	(32)
TOTAL RENEWALS	3,105	2,665	(440)
Enhancements			
Enhancements (non-WCRM)	1,089	583	(506)
Enhancements (WCRM)	259	238	(21)
TOTAL ENHANCEMENTS	1348	821	(527)

A breakdown of this network total is shown in the remaining tables in this section giving details of expenditure for the 26 strategic routes, managed stations, central (other), and West Coast Route Modernisation (WCRM) and Maintenance by territory. The commentary below relates to non WCRM expenditure - WCRM has a separate page with commentary.

## Reconciliation with Regulatory accounts

The expenditure figures presented in this Annual Return are slightly different to those in the Regulatory accounts in two respects: (1) Enhancements – the Annual Return includes £120m of third party funded schemes that are not reported in our accounts; note also that this includes £50m of enhancements that have not yet been approved for addition to the RAB by ORR; (2) Renewals – the Annual Return includes expenditure on WCRM power supply points (£13m) to be consistent with the renewals forecast in the 2004 Business Plan that was classified as operating cost in the accounts.

As reported in the regulatory accounts, operating expenditure in the year was £1181m compared with the ACR 2003 Final Determination of £1248m

## Commentary

#### Maintenance

The £19m underspend was primarily the result of reductions in the costs of materials and plant, as well as reductions in employee costs in most territories.

A more detailed explanation of this variance is contained in the "Maintenance by Territory" section.

#### Renewals

The most significant variances in renewals expenditure were in the signalling, plant and machinery, information technology and electrification programmes. It should also be noted that some renewals expenditure was retained at a national or Territory level and later allocated to specific routes to cover emerging requirements.

#### Signalling

Much of the £126m underspend was the result of decisions to defer design and implementation on major projects (e.g. Portsmouth, Glasgow and Basingstoke) until efficient contracts could be agreed. Underspend also occurred as the result of delays in remitting and developing smaller projects due to internal resourcing issues. This work has been rescheduled into the later years of control period 3 and recruitment is progressing in line with the plan.

In addition, activity efficiencies have been achieved through conducting project development activities in-house and through tighter control of development outputs. This has resulted in release of project contingency and lower internal and contractor costs. Some scope efficiency has also been achieved through value engineering.

#### Plant and machinery

The largest single item of underspend was in relation to the high output ballast cleaning and track relaying plant procured during the year where savings were made from a reduced capital cost and reduced commissioning period for the plant. In addition, there was a large scope reduction within this portfolio resulting from a decision that it would not be necessary to undertake capital investment in depots to support the new plant as well as underspend relating to delays with the delivery of the second track renewals system.

#### Information technology

£1 Im savings were made on schemes where the decision was made not to proceed as well as £5m efficiency savings on schemes which were delivered (such as the Signalling Simulation Project - £1.2m). A further £10m relates to schemes that were specifically deferred as a result of maintenance being brought in-house and £32m due to unplanned slippage of schemes into future years – in particular, Enterprise Resource Planning (£6.7m), DREAM (£7.8m) and the Human Resources Management System (£4.5m).

#### Electrification

The £23m underspend in 2004/05 was principally the result of delays in programme development (e.g. late remitting and definition of projects) as the new organisation settled down. The majority of this expenditure has been re-scheduled into 2005/06 and 2006/07. We are now significantly increasing the resources within our electrification renewals teams and looking for new ways to increase the throughput of project remits produced by our engineering function without compromising on their quality.

Significant efficiencies have also been achieved on a number of projects through value engineering, tight control over contingency and utilising contractors already on site.

## **Enhancements**

The key variances were in centrally held expenditure – this is explained in more detail in the Central (Other) page.

#### **Route I Kent**

Expenditure (£m)				
(2004/05 prices)	Forecast	Actual	Variance	
Renewals				
Track	36	23	(13)	
Signalling	22	15	(7)	
Structures	35	36	I	
Electrification	4	3	(1)	
Plant and machinery	2	-	(2)	
Information technology	-	-	-	
Telecoms	-	4	4	
Stations	8	7	(1)	
Depots		-	(1)	
Lineside buildings		-	(1)	
Other	-	-	-	
Total renewals	109	88	(21)	
Total enhancements	12	7	(5)	

## Commentary

#### Track

 $\pounds$ 9.8m variance is the result of rescheduling of plain line works into 2005/06.  $\pounds$ 3.1m variance is due to the deferral of S&C works into 2005/06 and lower actual costs than originally planned.

## Signalling

The £7m variance was principally caused by the postponement of the East Kent Resignalling Project, following a decision to carry out a signalling infrastructure condition assessment (SICA) re-assessment. The revised project is going for investment authority in 2005/06. Other minor variances have been generated through the re-evaluation of engineering requirements via the SICA process.

#### **Enhancements**

The £5m variance was primarily caused by efficiencies achieved on the SRNTP platform extension programme and the slippage of Victoria and Tonbridge CET project into 2006/07.

# **Route 2 Brighton Main Line and Sussex**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	35	32	(3)
Signalling	23	17	(6)
Structures	17	9	(8)
Electrification	4	3	(1)
Plant and machinery	2	-	(2)
Information technology	-	-	-
Telecoms		3	2
Stations	5	4	(1)
Depots	I	-	(1)
Lineside buildings	l	-	(1)
Other	-	-	-
Total renewals	88	68	(21)
Total enhancements	12	11	(1)

## Commentary

## Signalling

£5m of the £6m variance was caused by the re-evaluation of engineering requirements for the minor projects via the SICA process. This resulted in revisions and delays in issuing work bank instructions. The remaining £1m variance was the result of a number of changes to scope and contracting strategy for the Barnham – Bognor project.

#### Structures

The variance comprises £1m efficiencies on Crucifix Lane and Grosvenor River Bridge, £3m of deferrals into 2005/06 to ensure correct contracting and packaging strategies were in place for Oxsted Viaduct and South Bermondsey Embankment and £1m deferral into 2005/06 for Hammersmith Road Bridgeguard strengthening works.

# **Route 3 South West Main Line**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	53	52	(1)
Signalling	27	П	(16)
Structures	17	16	(1)
Electrification	4	2	(2)
Plant and machinery	1	-	(1)
Information technology	-	-	-
Telecoms	-		
Stations	5	4	(1)
Depots	1		-
Lineside buildings	1		-
Other	-	-	-
Total renewals	110	88	(22)
Total enhancements	24	20	(4)

# Commentary

## Signalling

The £16m variance was largely caused by the re-evaluation of the Portsmouth and Basingstoke resignalling projects to create efficiencies. These two major projects have now been re-costed and are scheduled to meet their original end date.

#### **Enhancements**

The £4m underspend was primarily due to efficiencies achieved on the SRNTP platform extension programme.

# **Route 4 Wessex Routes**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	2		(1)
Signalling	3	-	(3)
Structures	5	5	-
Electrification	-	-	-
Plant and machinery	-	-	-
Information technology	-	-	-
Telecoms	-	-	-
Stations	-	-	-
Depots	-	-	-
Lineside buildings	-	-	-
Other	-		-
Total renewals	II	6	(5)
Total colonian conta			
Total enhancements	-	-	

# Commentary

# Signalling

The £3m variance was caused by the re-evaluation of engineering requirements for the minor projects via the SICA process, resulting in revisions and delays in issuing work bank instructions.

# **Route 5 West Anglia**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	28	19	(9)
Signalling	8	3	(5)
Structures	7	5	(2)
Electrification	-	I	1
Plant and machinery	1	-	(1)
Information technology	-	-	-
Telecoms	2	-	(2)
Stations	3	3	-
Depots	-	-	-
Lineside buildings		I	-
Other	-	-	-
Total renewals	51	32	(19)
Total enhancements	<u>-</u>	2	2

## Commentary

#### Track

 $\pounds$ 3.6m of the variance is due to a review of the 2004-05 plain line programme by the sponsor (see also Routes 6 and 7). A further  $\pounds$ 5.7m relates to the deferral of planned S&C renewal until 2005/06.

## Signalling

The £5m variance was caused by a re-evaluation of the remits and design development strategies for the Ely-Norwich Pole route project (£1.5m), Colchester-Clacton resignalling (£0.5m) and Signalling safety renewals (£1m). The remaining variance relates to the re-evaluation of engineering requirements for a variety of minor projects via the SICA process.

## **Route 6 North London Line and Thameside**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	42	24	(18)
Signalling	2	-	(2)
Structures	10	8	(2)
Electrification	5	2	(3)
Plant and machinery	-	-	-
Information technology	-	-	-
Telecoms	-		I
Stations	3	2	(1)
Depots		-	(1)
Lineside buildings	-	-	-
Other	-	-	-
Total renewals	63	37	(26)
Total enhancements	6	6	

## Commentary

#### Track

The £18m variance is due to a review of the 2004/05 plain line programme by the sponsor (see also Routes 6 and 7).

#### Electrification

Complexity of work and novelty of design coupled with commercial and engineering resource constraints have participated in progress being slower than anticipated. In particular, the North London Line OLE structure foundations study experienced some slippage as a result of emergency maintenance activity taking key possessions. Also, the Thameside contact wire renewal project was deferred because of a shortage of commercial and engineering resources.

#### **Route 7 Great Eastern**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	21	28	7
Signalling	14	6	(8)
Structures	15		(4)
Electrification	2		(1)
Plant and machinery	-	-	-
Information technology	-	-	-
Telecoms			-
Stations	3	2	(1)
Depots			-
Lineside buildings			-
Other	-	-	-
Total renewals	57	51	(6)
Total enhancements	<u> </u>	14	13

## Commentary

#### Track

The £7m variance is the result of a review of the 2004/05 plain line programme by the sponsor (see also Routes 5 and 6).

#### Signalling

The £8m variance was primarily caused by the re-scheduling of the train describer (TDM) project to competitively tender the work and the re-evaluation of the remit for the Reedham Junction project. Other minor variances have been generated through the re-evaluation of engineering requirements via the SICA process.

#### Structures

Some works have been deferred into 2005/06 in order to ensure efficient delivery. Other works have been re-evaluated as no longer required. There was also around £600k efficiencies generated.

#### **Enhancements**

The £13m variance was due to the reallocation of the Felixstowe to Nuneaton project to the route having previously been held centrally.

## **Route 8 East Coast Main Line**

Forecast		
1 Of CCase	Actual	Variance
52	55	3
13	12	(1)
5	12	7
6	5	(1)
3	-	(3)
-	-	-
-	12	12
-	-	-
I		-
-	-	-
-	-	-
80	97	17
15	<u> </u>	(10)
	13 5 6 3 - - - - !	13     12       5     12       6     5       3     -       -     -       -     12       -     -       I     I       -     -       80     97

# Commentary

#### Track

The £3m variance is due to changes in scope to the original planned S&C workbank for 2004/05.

## Structures

The £7m variance was primarily due to reallocation of expenditure from centrally held budgets for fencing (£0.5m), drainage renewals (£0.5m) and other structures (£3m).

#### **Enhancements**

£9.7m of the underspend was caused by the deferral of the ECML upgrade project by the SRA.

## **Route 9 Northeast Routes**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	8	8	-
Signalling	12	3	(9)
Structures	9		2
Electrification	-	-	-
Plant and machinery	-	-	-
Information technology	-	-	-
Telecoms	2		(1)
Stations	-	-	-
Depots	-	-	-
Lineside buildings	-	-	-
Other	-	-	-
Total renewals	31	23	(8)
Total enhancements	5	-	(5)

# Commentary

## Signalling

A proportion of this variance was also generated through a value engineering exercise on Boston West scheme which resulted in a £700k efficiency.

#### **Enhancements**

The £5m underspend was the result of an unanticipated insurance recovery on the Sunderland Direct project offsetting in-year spend.

# Route 10 North Transpennine, North and West Yorks

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	16	17	
Signalling	8	8	-
Structures	10	13	3
Electrification	-	-	-
Plant and machinery	2	-	(2)
Information technology	-	-	-
Telecoms			-
Stations	-		1
Depots	-	-	-
Lineside buildings	-	-	-
Other	-	-	-
Total renewals	37	40	3
Total enhancements		l	-

## Commentary

## Structures

The £3m variance was due to re-allocation of expenditure from centrally held budgets to llkley embankment stabilisation (£2m), fencing (£0.5m) and Mortons Leam (£0.6m).

# Route II South Transpennine, South Yorks and Lincs

Expenditure (£m) (2004/05 prices)	Forecast	Actual	Variance
(2004/03 prices)	FORECASE	Actual	variance
Renewals			
Track	25	19	(6)
Signalling	14	13	(1)
Structures	П	16	5
Electrification	-	-	-
Plant and machinery	-	-	-
Information technology	-	-	-
Telecoms	2	2	-
Stations	12	12	-
Depots	2		(1)
Lineside buildings			-
Other	-	-	-
Total renewals	67	64	(3)
Total enhancements	9	10	

## Commentary

## Track

The variance is due to deferral of works into 2005/06 and close-out of final accounts for projects that delivered volume prior to 2004/05.

## Structures

The variance is the result of improved definition and prioritisation of projects and the re-allocation of centrally held budgets to route-specific projects.

## **Route 12 Reading to Penzance**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	25	23	(2)
Signalling	10	5	(5)
Structures	21	26	5
Electrification	-	-	-
Plant and machinery	3		(2)
Information technology	-	-	-
Telecoms		-	(1)
Stations	7	6	(1)
Depots	3	2	(1)
Lineside buildings	2		(1)
Other	-	-	-
Total renewals	72	64	(8)
Total enhancements		8	(3)

## Commentary

## Signalling

The  $\pounds$ 5m variance was caused by delays in network change, finalisation of testing strategies and design approval for several projects within the Western Alliance programme as well as the re-evaluation of engineering requirements for the minor projects via the SICA process.

#### Structures

The  $\pounds 5m$  overspend was largely the result of higher than expected expenditure on emergency reactive work.

## **Enhancements**

The £3m underspend is largely due to efficiencies achieved on Probus to Bungullow project.

## **Route 13 Great Western Main Line**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	106	93	(13)
Signalling	24	12	(12)
Structures	30	16	(14)
Electrification	-	-	-
Plant and machinery	2	3	I
Information technology	-	-	-
Telecoms	4	9	5
Stations	5	4	(1)
Depots	4	3	(1)
Lineside buildings	-	-	-
Other	-		-
Total renewals	175	140	(35)
Total enhancements	9	29	20

## Commentary

#### Track

The largest element of the £13m variance related to the high output ballast cleaning project where the cost of mobilisation of the contractor and site costs were significantly lower than originally planned.

## Signalling

The £12m variance was principally the result of the re-packaging of the three major South Wales projects (Port Talbot, Newport and Cardiff resignalling). Other minor variances have been generated through the re-evaluation of engineering requirements via the SICA process.

#### Structures

The variance was principally caused by the following: £3m underpend on the Coalpit Heath project due to delays in receipt of local authority approvals; a £2m underspend resulting from a reduction in drainage works carried out; £1m underspend on the Severn Tunnel due to possession window being missed and a £1.5m underspend on Winterbourne Cutting due to a change in delivery mechanism to obtain increased efficiencies.

#### **Enhancements**

The £20.2m variance was caused by the allocation of Filton Junction project to the route from centrally held expenditure, additional safety improvement works and an additional performance enhancement improving the pumps at Chipping Sodbury tunnel.

# Route 14 South and Central Wales and Borders

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	6	5	(1)
Signalling	-	3	3
Structures	10	10	-
Electrification	-	-	-
Plant and machinery	-		I
Information technology	-	-	-
Telecoms	-	-	-
Stations			-
Depots	-	-	-
Lineside buildings	-	-	-
Other	-	-	-
Total renewals	18	20	2
Total enhancements	-	2	2

# Commentary

# Signalling

The £3m variance is as a result of expenditure on unplanned reactive minor works.

# **Route 15 South Wales Valleys**

Expenditure (£m) (2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	6	5	(1)
Signalling		l	-
Structures		2	I
Electrification	-	-	-
Plant and machinery	-	-	-
Information technology	-	-	-
Telecoms	-	-	-
Stations	-	-	-
Depots	-	-	-
Lineside buildings	-	-	-
Other	-	-	-
Total renewals	8	8	-
Total enhancements	17	9	(8)

# Commentary

## **Enhancements**

The  $\pounds 8m$  underspend was due to efficiencies and minor slippage on the Vale of Glamorgan project.

## **Route 16 Chilterns**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	16	10	(6)
Signalling			-
Structures	5	5	-
Electrification	-	-	-
Plant and machinery	-	-	-
Information technology	-	-	-
Telecoms	-	-	-
Stations	3	I	(2)
Depots	-	-	-
Lineside buildings	-	-	-
Other	-	-	-
Total renewals	24	17	(7)
Total enhancements		2	2

# Commentary

## Track

The £6m variance is due to a combination of re-evaluation of items in the workbank and deferral of items of work into 2005/06. £3m of this variance is specifically due to expenditure initially held at Territory level.

## **Route 17 West Midlands**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	43	42	(1)
Signalling	18	13	(5)
Structures	8	3	(5)
Electrification	2	-	(2)
Plant and machinery	2	-	(2)
Information technology	-	-	-
Telecoms	4	3	(1)
Stations	8	8	-
Depots	2		(1)
Lineside buildings	-	-	-
Other	-	-	-
Total renewals	86	70	(16)
Total enhancements	6	8	2

## Commentary

## Signalling

The £5m variance was primarily caused by the re-phasing of the Water-Orton project (£1m) and the Leamington resignalling project (£1.6m) following a decision to terminate the existing contract.

#### Structures

The variance of £5m is due to a combination of planned slippage at Lime Kiln Bridge and Soho South to Perry Bar intersection bridge 14 (total £0.7m), efficencies (£1m) and a reduced level of emergency works resulting in lower spend than anticipated.

## **Route 18 West Coast Main Line**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	23	14	(9)
Signalling	27	17	(10)
Structures	2	2	-
Electrification	10	3	(7)
Plant and machinery	2		(1)
Information technology	-	-	-
Telecoms	4		(3)
Stations	5	5	-
Depots	-	-	-
Lineside buildings	-	-	-
Other	-	-	-
Total renewals	72	43	(29)
Total enhancements	l		(0)

## Commentary

#### Track

The £9m variance is due to a combination of plain line works rescheduled into 2005/06 and various scope changes during 2004/05.

## Signalling

The £10m variance was largely caused by the re-phasing of the Willesden Suburban project to take account of blockade access in July 2005 and reduced development costs on the Coventry resignalling scheme.

#### **Telecoms**

The £3m variance was largely caused by the postponement of the Virgin CIS scheme in 2004/05. Following the re-drafting of the contract specification late last year the contract was successfully awarded in April 2005.

## Electrification

Underspend was mainly due to planned deferral – repackaging and rescheduling of work to ensure efficient delivery. In addition, there was also deferral related to reduced engineering access – for example, on the WCML OLE Condition Renewal project.

## Route 19 Midlands Main Line and East Midlands

Forecast	Actual	Variance
43	54	11
29	6	(23)
10	8	(2)
	-	(1)
2		(1)
-	-	-
2		(1)
10	9	(1)
-	-	-
-	-	-
-	-	-
99	79	(20)
113	84	(29)
	43 29 10 1 2  2 10 	43 54 29 6 10 8 1 - 2 1 - 2 1 10 9 99 79

## Commentary

#### Track

The £11m variance is primarily the result of scope changes during 2004/05.

## Signalling

The £23.4m variance was principally caused by the re-scoping of East Midlands resignalling. This project has now been re-validated and efficiency plans put into place. Other minor variances have been generated through the re-evaluation of engineering requirements via the SICA process.

#### **Enhancements**

The £29m variance was largely the result of provisions for project risk and additional scope on the CRTL Blockade project no longer being required.

## **Route 20 North West Urban**

Forecast	Actual	Variance
17	15	(2)
10	10	-
6	7	I
	-	(1)
I		-
-	-	-
	-	(1)
5	5	-
-	-	-
-	-	-
-	-	-
41	38	(3)
17	4	(13)
	17 10 6 1 1 - 1 5 -	17 15 10 10 6 7 1 - 1

## Commentary

#### **Enhancements**

£10m of the £13m variance relates to Liverpool South Parkway (Allerton Interchange) where as a result of a change in delivery strategy the works were undertaken by a third party. The balance is primarily the result of deferral of various third party projects such as St Helens central revitalisation.

# Route 21 Merseyrail

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	9	6	(3)
Signalling	-	-	-
Structures	I		-
Electrification	3		(2)
Plant and machinery	2	-	(2)
Information technology	-	-	-
Telecoms	I	-	(1)
Stations	I		-
Depots	-	-	-
Lineside buildings	-	-	-
Other	-	-	-
Total renewals	16	9	(7)
Total enhancements	13	-	(13)

## Commentary

## Electrification

The underspend is mainly a consequence of deferral of two projects (Bank Hall substation and Liverpool I I kv Renewal) which have been rescheduled for efficient delivery.

## **Enhancements**

The £13m underspend is due to the deferral of a number of third party funded station projects, such as Southport and Bootle Oriel Road.

# **Route 22 North Wales and Borders**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track			-
Signalling	5	5	-
Structures		3	2
Electrification	-	-	-
Plant and machinery	-	-	-
Information technology	-	-	-
Telecoms	-	-	-
Stations	-	-	-
Depots	-	-	-
Lineside buildings	-	-	-
Other	-	-	-
Total renewals	8	9	I
Total enhancements	-	l	l

# Commentary

None.

# **Route 23 North West Rural**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	7	9	2
Signalling	2	2	-
Structures	5	6	
Electrification	-	-	-
Plant and machinery	-	-	-
Information technology	-	-	-
Telecoms	-	-	-
Stations	-	-	-
Depots	-	-	-
Lineside buildings	-	-	-
Other	-	-	-
Total renewals	15	17	2
Total enhancements	<u> </u>		(1)

# Commentary

None.

## **Route 24 East of Scotland**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	14	5	(9)
Signalling	4	2	(2)
Structures	22	20	(2)
Electrification	-	-	-
Plant and machinery		-	(1)
Information technology	-	-	-
Telecoms		-	(1)
Stations			-
Depots			-
Lineside buildings			-
Other	-	-	-
Total renewals	45	30	(15)
Total enhancements	3	5	2

## Commentary

## Track

The £9m variance is due to the close-out of final accounts for projects that delivered volume prior to 2004/05 and the re-prioritisation of S&C renewals to route 26.

## Signalling

The £2m variance was largely due to the re-evaluation of engineering requirements for minor projects via the SICA process.

# **Route 25 Highlands**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	4	6	2
Signalling		2	
Structures			-
Electrification	-	-	-
Plant and machinery		-	(1)
Information technology	-	-	-
Telecoms		-	(1)
Stations		-	(1)
Depots		-	(1)
Lineside buildings	-	-	-
Other	-	-	-
Total renewals	20	19	(1)
Total coloniana	<u> </u>		(1)
Total enhancements	I	<del>-</del>	(I)

# Commentary

None.

# **Route 26 Strathclyde and South West Scotland**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	8	12	4
Signalling	13	3	(10)
Structures	8	8	-
Electrification	2	I	(1)
Plant and machinery	2	-	(2)
Information technology	-	-	-
Telecoms	3	2	(1)
Stations	4	3	(1)
Depots		-	(1)
Lineside buildings	-	-	-
Other	-	-	-
Total renewals	40	29	(11)
Total enhancements	22	25	(3)

## Commentary

#### Track

The £4m variance is the result of re-prioritisation of S&C renewals from route 24.

#### Signalling

The £10.3m variance was largely caused by the re-evaluation of the Glasgow re-signalling project to assess alternative technology options and ensure efficient delivery.

## **Managed Stations (Railway Estates)**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	-	-	-
Signalling	-	-	-
Structures	-	-	-
Electrification	-	-	-
Plant and machinery	-	-	-
Information technology		-	(1)
Telecoms	12	12	-
Stations	25	10	(15)
Depots	-	-	-
Lineside buildings	-	-	-
Other	3	-	(3)
Total renewals	41	22	(19)
Total enhancements	33	48	15

## Commentary

#### **Stations**

The underspend of £15m was primarily the result of planned deferral on the King's Cross Major Renewals project to ensure efficient delivery (£4.9m), efficiencies and scope changes on the Managed Stations Fire Alarm Renewals project (£0.8m) and some planned deferral on the Victoria Glazing scheme (£0.4m). Further efficiencies were realised on London Liverpool St Escalators (£0.6m), All Stations Lift Renewals Phase 2 (£0.2m), Waterloo and Kings Cross glazing projects (£0.3m) and Waterloo Station Regeneration Programme (£0.4m). Deferral was planned to ensure efficient delivery on the Manchester Piccadilly North Deck project (£0.6m), Leeds (£0.1m), Glasgow (£0.1m), London Bridge (£0.2m) and Gatwick (£0.2m) and CIS (£0.1m). In addition, there was unplanned slippage as a result of having to complete further investigations prior to commencing implementation on projects at Euston (£0.5m), Paddington (£0.3m) and Gatwick (£0.2m) with contractor procurement at Paddington & Gatwick also proving difficult.

#### **Enhancements**

The overspend was primarily a result of an additional  $\pounds 24.7m$  expenditure on the purchase of a number of Jarvis properties, which had not previously been planned. There was also an underspend of  $\pounds 11.4m$  due to a moratorium on Spacia enhancements to allow for thorough value engineering.

# **Central (Other)**

Forecast	Actual	Variance
264	265	I
(16)	31	47
17	13	(4)
29	(7)	(36)
4	4	-
153	69	(84)
127	86	(41)
189	147	(42)
20	35	15
9	18	9
6	13	7
2	-	(2)
540	409	(131)
757	201	(476)
	264  (16)  17  29  4  153  127  189  20  9  6 2	(16)       31         17       13         29       (7)         4       4         153       69         127       86         189       147         20       35         9       18         6       13         2       -         540       409

Some large projects which should be highlighted from the above totals are as follows:

Forecast Actual

	Forecast	Actual	Variance
Renewals			
Telecoms - GSM-R /FTN*	198	171	(27)
* includes expenditure reported within			
the strategic routes			
Enhancements			
SRNTP	407	255	(152)
Pollution prevention at LMDs	23	10	(13)

## Commentary

#### Maintenance

Significant maintenance savings were delivered following the completion of the in-sourcing of the Infrastructure Maintenance Companies during the year, although this was offset by the exceptional charges incurred in the in-sourcing and subsequent re-organisation.

#### Renewals

Track

The £47m variance relates to centrally held efficiency forecasts, indirect overheads for the National Delivery Service (not allocated to individual projects) and centrally held staff costs, offset by the release of provisions following settlement of outstanding claims.

Structures

£11m of centrally held contingency was not utilised. A further £18m of costs were centrally held in the 2004 Business Plan but subsequently allocated to route. In addition, a £10m central adjustment was made relating to the negotiated settlement on civils contracts in relation to prior year costs no longer required.

Information technology

£11m savings were made on schemes where the decision was made not to proceed as well as £5m efficiency savings on schemes which were delivered (such as the Signalling Simulation Project - £1.2m). A further £10m relates to schemes that were specifically deferred as a result of maintenance being brought in-house and unplanned slippage occurred on a number of other schemes – in particular, Enterprise Resource Planning (£6.7m), DREAM (£7.8m) and the HR Management System (£4.5m).

#### Depots

The variance was the result of scope changes at Whitemoor depot.

Plant and machinery

The underspend was primarily in relation to the high output ballast cleaning and track relaying plant procured during the year, where efficiencies were gained from a reduced capital cost and reduced commissioning period for the plant. In addition, there was a large scope reduction within this portfolio resulting from a decision that it would not be necessary to undertake capital investment in depots to support the new plant as well as underspend relating to delays with the delivery of the second track renewals system.

Telecoms (GSM-R/FTN)

Project expenditure in the year was £171m against a budget of £198m, representing an underspend of £27m against budget, comprising:

- construction activity lag in GSM-R (£10m below budget)
- expenditure on FTN route work construction (£11m over budget)
- FTN logistics £2m under budget
- core node equipment £2m over budget
- transmission expenditure £5m over budget, including a stage payment to Alcatel of £3.5m (from prior year, not budgeted in 2004/05)
- lower than expected spend on Telecoms Engineering Centre and support systems (£6m below budget)
- underspend of £7m on management costs caused by recruitment levels being below budget (although permanent employee levels have increased)
- no spend against cab mobile (£5m budget) or against the budgeted contingency (£16m).

#### **Enhancements**

Southern Region New Trains Programme (SRNTP)

At the time of preparation of the 2004 Business Plan the scope and timing of spend on the SRNTP was under development. As the 2004/05 financial year progressed, emerging costs were less than business plan projections for the following reasons:

- reductions in scope reductions were achieved in the number of new substations required as engineering modelling was refined leading to a £40m saving
- cost savings particularly reductions in the expected level of compensation to TOCs, led to a £48m saving
- programme re-profiling with spend moving to the 2005/06 financial year resulted in a £71m deferral.

#### Pollution prevention at LMDs

The 2004 Plan provision included £5.5m of uncommitted expenditure which was subsequently not incurred. A further £5.5m underspend resulted from unplanned deferral with additional planned slippage of £1m and activity efficiency of £1m.

#### Other enhancements

Underspend occurred as a result of unused contingency (£66m) which was included in the 2004 Business Plan to cover the risk of emerging changes to the scope of SRNTP, Thameslink and the CTRL Blockade project. Expenditure on the Safety & Environment Plan was £67m lower than assumed in the 2004 Business Plan as focus has been on quantifying the specific benefits of proposed schemes. Other safety related expenditure was £28m lower, primarily due to delays in the development of fitment designs on the TPWS+ project and an £18m underspend on ERTMS as changes occurred in the industry development strategy during the 2004/05 financial year. In addition, there was a £28m underspend on the SRA sponsored Thameslink project.

#### **WCRM**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Renewals			
Track	372	478	106
Signalling	310	269	(41)
Structures	84	70	(14)
Electrification	219	151	(68)
Plant and machinery	27	35	8
Information technology	-	-	-
Telecoms	68	45	(23)
Stations	-	-	-
Depots	-		-
Lineside buildings	-		-
Other	-		-
Total renewals	1,080	1,048	(32)
Total enhancements	259	238	(21)

## Commentary

#### Track

The re-assessment of the asset condition has led to certain scope increases, in particular in the Manchester Area.

#### Signalling

Following the challenge set by the regulator on efficiencies, the single option development of Rugby, Nuneaton and Crewe-Weaver has resulted in simplification of the schemes that had been previously instructed. This has allowed us to complete the preliminary design in-house in order to allow fixed price competitive tenders to be sought. The simplification of the scheme has resulted in elements of the expenditure being pushed back into future financial years and an overall reduction of cost.

#### **Telecoms**

The West Coast GSM-R roll-out was delivered £11m lower than budget and completed in the year. In addition, a further £5m efficiency was delivered through synergies with the national FTN programme on installation of fibre and troughing. The delivery of London North Western telephone concentrators has been elongated due to the interface issues with Coventry and Nuneaton resignalling schemes.

#### Structures

As part of delivering the efficiencies on the West Coast programme, the structures portfolio has undergone significant challenge to scope to ensure compliance with Policy B. This has allowed the programme to defer non-urgent works. In addition, the draw down for emergency embankment works has been lower than previous years and some buying gains have occurred.

#### Electrification

The upgrade of the power supply and distribution system using auto-transformer technology has continued during the year with the completion of the Project Hilton test site. However, the award of the remaining distribution sites has been postponed until 2006 to allow the completion of the system design to ensure the targeted efficiencies can be delivered. Due to planning issues with the site at Weaverham, the power supply point works has been delayed whilst alternative sites are investigated.

## **Maintenance by Territory**

Expenditure (£m)			
(2004/05 prices)	Forecast	Actual	Variance
Territory			
Scotland	89	86	(3)
London North Eastern	194	194	-
London North Western	254	252	(2)
South East	331	322	(9)
Western	158	152	(6)
Total territory maintenance	1,026	1,006	(20)

## Commentary

## London North Eastern (£0m)

Whilst the Territory was successful in managing plant and sub-contractor costs, employee costs were higher than envisaged. This was due to the levels of overtime and rest day working required to complete certain activities.

#### South East (£9m)

£3.4m of the variance was in the Anglia Areas (Great Eastern and West Anglia). This was driven by reduced rail cost and better than planned performance on remedial works.

The Kent area underspent by £2.0m - this was mainly due to reduced employee costs and the release of settlement provisions. Wessex was £1.8m better than plan due to reduced sub-contractor costs and other production and management costs. A further £0.7m saving was achieved by the rationalisation of vegetation works in Wessex. Sussex underspent the plan by £1.3m due to lower employee costs, lower sub-contractor costs and lower materials and plant costs.

#### Western (£6m)

£3.3m of the saving to plan was due to the release of prior year provisions relating to a contractual settlement. £1.1m savings were achieved on vegetation clearance and weed killing. The remaining savings were primarily due to lower volumes and lower rates for on-track plant, savings on materials and employee vacancies.

## London North Western (£2m)

£1.4m saving was achieved through deferral of tree clearing work in West Midlands and the Chilterns. The remainder related to a reduction in overtime and sub-contractor costs in the Preston Area and better control on the use of materials and plant.

#### Scotland (£3m)

£1m saving was achieved in vegetation clearance and weed killing. Tighter controls on sub-contractors delivered a further £400k saving. The remaining savings related to NDS materials and freight costs.

## **Efficiency**

## Introduction

The ACR 2003 set output targets and provided funding based on ORR's assessment of the expenditure needed to deliver these outputs. The expenditure determination included challenging targets for improving efficiency, through reductions in unit costs and scope efficiencies. The determination specified profiles for efficiency improvement over the control period, adding up to 35% for maintenance and 30% for controllable operating costs (opex) and renewals (excluding WCRM for which specific assumptions were made), equivalent to overall savings of 31% over CP3. Savings of 8% in all areas were assumed for 2004/05. This section summarises our progress in delivering improvements in efficiency.

It is important to note that the measurement of efficiency improvement against these targets is not, and will never be, a straightforward exercise. The determination did not define baseline volumes of activity or unit costs against which changes could be measured, and there is limited information on the unit costs of activities in 2003/04 to provide benchmarks. The assessment of efficiency improvement over the first year of CP3 set out here must be treated with caution as firm conclusions on efficiency trends can only be drawn over a period of years.

#### Overall assessment

Efficiency improvement in controllable opex and maintenance is assessed by comparing total expenditure with the ACR 2003 determination for 2004/05. While it is desirable to normalise maintenance figures for the increase in traffic over the year, we do not have sufficiently robust measures of the impact and have assumed no net change. For renewal expenditure, the assessment of efficiency is more complex as the volumes of activity required over the control period are not constant. The renewals figure identified in the table below is informed by the unit cost indices and budget variance analysis described further below.

Table 98	Efficiency improvement 2004/5		
Estimated % improven	nent	Target	Actual
Controllable opex		8%	16%
Maintenance		8%	10%
Renewals		8%	8%

## **Operating Costs**

The table below compares total controllable operating costs in 2004/05 with the level assumed by the ORR in the ACR 2003 determination, which includes the targeted 8% efficiency improvement. The comparison shows that controllable opex was around 8% lower than the efficient level assumed by ORR and therefore well ahead of the assumed profile of efficiency savings. Substantial savings were delivered in 2003/04 and further savings of around £110 million have been achieved in 2004/05.

Table 99 Opex efficiency improvement 2004-05				
£m 2004/05 prices	Target	Actual	Variance £m	Variance %
Total controllable opex 1	1018	934	(84)	(8%)

#### Maintenance

The table below compares the total level of maintenance expenditure in 2004/05 with the level assumed by the ORR in the ACR 2003 determination, which includes the 8% efficiency target. The comparison shows that maintenance expenditure was about 2% lower than the level assumed by ORR, and therefore ahead of the profile of efficiency savings assumed by the Regulator.

Table 100 Mainte	1aintenance efficiency improvement 2004-05							
£m 2004/05 prices	Target	Actual	Variance £m	Variance %				
Total maintenance <sup>1</sup>	1296	1271	(25)	(2%)				
Equated track miles (ETM)		22467						
Maintenance costs per ETM (£k)		57						

The overall assessment of maintenance efficiency requires the costs to be normalised to take account of changes in traffic, which is clearly a major cost driver. We have therefore proposed that the monitoring of efficiency over time should be based on costs per equated track mile (ETM). At present, we are not able to identify the actual change in ETMs over the year robustly and have therefore made no specific adjustment for the increase in traffic. We are currently establishing a process for recording changes in ETMs on a systematic basis which will inform the assessment of efficiency in future returns.

However, we note that our income from variable track usage charges (which are intended to recover the increased costs of additional wear and tear of our assets) increased by approximately 9% (£24 million) in 2004/05, indicating that the true improvement in maintenance efficiency is higher as the savings have been delivered in the context of increasing traffic and usage of our assets.

We also note that the performance and asset serviceability measures provide evidence of improvements in the quality of maintenance work that is being undertaken, a key element of the overall improvement in efficiency.

We have developed a process for recording the unit costs of key maintenance activities which will provide supporting indicators of progress in improving efficiency. We aim to establish consistent benchmarks during 2005/06 against which trends can be measured in subsequent years.

#### Renewals

Assessing the efficiency of our renewals programme is more complex. The level and nature of activity that is required (and for which we have been funded) over the control period is not constant and trends in total expenditure do not provide any indication of efficiency. The efficiency assessment draws on two key sources:

- unit cost indices: where consistent data is available to compare the unit costs of specific activities over time we have derived unit cost indices; and
- budget variance analysis: our financial control process involves recording and categorising all
  changes in budgets during the year between activity efficiency, changes in the scope of work
  necessary to deliver the outputs, and deferral of planned activity into later years. This analysis
  provides insights for the efficiency assessment.

#### Unit cost indices

A key element of improving efficiency is reducing the unit costs of specific activities on the network. We are implementing a comprehensive Cost Analysis Framework which will ensure that cost data is captured on a consistent basis across the company, providing a much more robust basis for estimating the costs of renewal projects and allowing trends in actual unit costs to be tracked.

Unit cost improvements in 2004/05 are shown in the table below for those activities for which sufficient cost data had been collected during 2003/04 to form a reliable benchmark. The actual costs in 2004/05 are expressed as an index where costs in 2003/4 = 100 and are an average of the changes in unit costs across a range of activities, weighted by the expenditure on each activity in 2004/05. The table indicates the approximate proportion of renewal expenditure for each asset that is covered by the unit cost analysis.

The unit cost indices are based on the reported costs of individual projects and do not take account of overall savings arising from contractual settlements during the year which are not reflected in the project costs, with the result that they understate the full efficiency savings. The alternative composite rate measures, shown below, do capture this impact.

Table 101	Unit cost indices – 2004-05			
£m 2004/05 prices	2003/04	2004/05	Coverage	% change
Track - plain line	100	94.5	90%	(5.0)%
Track - S&C	100	97.3	100%	(2.7)%
Track - total	100	95.3	90%	(4.7)%
Civils	100	86.0	50%	(14.0)%

The S&C index understates the true efficiency improvement as it includes the costs of development work which increased significantly during the year in preparation for delivery of the planned increase in renewal volumes in later years.

The other area of activity for which a unit cost benchmark has been established for 2003/04 is for complete resignalling schemes using SSI technology. However, no comparable projects have been commissioned in 2004/05 so no unit cost comparison can be made.

The unit cost indices show the reductions in unit cost for the work delivered but do not provide insight into the efficiency of the mix of work undertaken. Further indicators of track renewal efficiency are the composite unit rates shown in the table below. For plain line track this is the average expenditure per composite metre of rail, sleeper and ballast delivered, while for S&C it is average expenditure per complete unit renewal. These composite rates allow for the impact of contractual settlements on aggregate expenditure and therefore provide a fuller picture of the overall efficiency improvement.

Table 102	Composite rate r	measures - 2004-(	05		
Rate 2004/05 prices	2002/03	2003/04	2004/05	% reduction	% reduction
				from 03/04	from 02/03
Plain line (£/metre)	264	258	237	8%	10%
S&C (£k/unit)	585	589	511	13%	13%

The figures show plain line track renewals efficiency improved by around 8% in 2004/05, building on savings of around 2% in 2003/04. The S&C composite rate calculation overstates the true efficiency improvement as it is based on complete unit renewals and not all S&C activity.

Since the Regulator's assessment of the scope for efficiency improvement was based on analysis of activity in 2002/03, we believe that overall savings of 10% are the best indication of progress against the efficiency target for track.

## Variance analysis

The assessment of efficiency improvements in areas where we do not have robust unit cost information is more difficult. The best indicator is the budget variance analysis summarised below. Annual budgets for each delivery programme and project are set on the basis of meeting the efficiency improvement targets, i.e. 8% savings for 2004/05. During the year changes in project budgets, whether increases or savings, are classified according to whether they represent changes in unit costs or other activity efficiencies, scope of works or deferral.

The savings classified as activity efficiencies are a good indicator of efficiency improvements. The scope changes cover a range of factors, some of which reflect improvements in efficiency, but the interpretation of these changes is not always clear cut. The savings identified in the right-hand column cover the activity efficiency savings only.

_Table 103	Variance analysis - 2004/05			
Spend by programme	Actual	Scope	Activity	% savings
£m 2004/05	expenditure	Change	efficiency	
Track	567	(10)	35	6%
Civils	301	(12)	43	12%
Electrification and plant	26	7	2	7%
Signalling	172	5	28	14%
Telecoms	29	4	4	12%
Railway Estates	130	8	11	8%
Total	1,225	3	123	9%

These figures reflect MP&I programme budgets and may differ from expenditure by asset, shown on page 133. Machinery, IT, FTN/GSM-R and some operational property costs are excluded.

The activity efficiency savings identified for track and civils are partly offset by the net increase in work resulting from scope changes. The net impact is similar to the savings identified through the unit rate analysis described above, which we believe provides a more robust indicator of efficiency. The table indicates that overall savings across the other core renewals programme are broadly in line with the 8% target for 2004/05.

Our assessment is that improvements in efficiency on the overall renewals portfolio are broadly in line with the Regulator's target of 8% improvement in 2004/05. However, we believe that these figures should be treated with a degree of caution and that a more robust assessment of efficiency can only be made over a longer period of time and informed by the much more extensive unit cost framework that we are implementing during 2005/06.

# Section 7 – Customer reasonable requirements

This report summarises progress from I April 2004 to I April 2005.

CRRs form part of Network Rail's planning process and are reviewed at our account management meetings with operators and PTEs. Operators and PTEs can at any time add, or withdraw, CRRs and they can use the CRR process to record and track the delivery of their reasonable requirements.

## Key overall results

In summary, progress of CRRs during the year shows:

Table 104	Summary of customer reasonable requirements	
Live CRRs at	start of year	112
Numbers sub	mitted during the year	0
Numbers cor	mpleted or withdrawn during the year	60
Number of liv	ve CRRs at 31 March 2005	52

Efforts have continued with operators and PTEs to improve the clarity and robustness of CRRs, and numerous CRRs that were NON-SMART have either been withdrawn or redefined and resubmitted or, if funding was currently not available, reclassified as 'aspirations'.

Successfully completed CRRs during the year included:

- New waiting shelters at 17 stations (Merseyrail Electrics).
- Central Trains Class 170 use of HST Linespeed differentials Cardiff to Birmingham route section.
- Clearance and extension of Platform 1 at Leeds for Class 373/2 operation.
- CIS relocation of equipment at Yoker and Paisley Gilmour Street.
- R&C Electrification at Rutherglen East Junction to Whifflet North Junction.
- Provision of DDA compliant access to both platforms at Crossmyloof station.
- Glasgow Central low level station refurbishment, i.e. booking office relocated, renewed ceiling and lighting and CCTV enhancement.
- Station building replacement of life-expired building with a new temporary building at Elstree station.
- Refurbishment of main entrance, subway and booking office at Stockport station.

Table 105 Custo		ole requirements To	Breakdown o	Breakdown of Live CRRs by category			
	No. of live No. withdrawn/ No.of live			No.of live			, , ,
	CRRs (April	completed	No. submitted	CRRs (April			Agreement
Operator	04)	during the year	during the year	05)	Enhancement	Process	not reached
Anglia Railways	2	2	0	0	0	0	
Arriva Trains Wales	0	0	0	0	0	0	
ATOC	l	0	0		I	0	
C2C		0	0		I	0	
Central Trains	9	9	0	0	0	0	
Centro	I	I	0	0	0	0	
Chiltern Railways	I	0	0	I	I	0	
DRS	5	0	0	5	0	5	
Eurostar	8	0	0	8	0	8	
EWS – freight	20	0	0	20	20	0	
EWS – passenger	I	0	0		0	ı	
First Great Eastern	0	0	0	0	0	0	
First Great Western	0	0	0	0	0	0	
Freightliner	0	0	0	0	0	0	
Gatwick Express			0	0	0	0	
GB Railfreight	0	0	0	0	0	0	
GMPTE	4	4	0	0	0	0	
GNER	6	6	0	0	0	0	
Heathrow Express	0	0	0	0	0	0	
Hull Trains	0	0	0	0	0	0	
Island Line	0	0	0	0	0	0	
Merseyrail Electrics	2	2	0	0	0	0	
Merseytravel	1	0	0	1	ı	0	
Midland Mainline (MML)	l I	0	0	<u>'</u>	ı	0	
	<u> </u>				0		
Nexus	0	0	0	0		0	
Northern	0	0	0	0	0	0	
First Scotrail	0	0	0	0	0	0	
Silverlink	I	0	0	<u> </u>	ļ	0	
South Central	2	I	0	<u> </u>	1	0	
South Eastern	12	12	0	0	0	0	
South West Trains	3	0	0	3	3	0	
SPTE	19	13	0	6	6	0	
SYPTE	0	0	0	0	0	0	
Thames Trains	0	0	0	0	0	0	
Thameslink	7	6	0		I	0	
TPE	0	0	0	0	0	0	
Virgin CC	0	0	0	0	0	0	
Virgin WC	3	3	0	0	0	0	
WAGN	0	0	0	0	0	0	
Wessex Trains	0	0	0	0	0	0	
West Coast Railway		0	0		I	0	
WYPTE	0	0	0	0	0	0	
TOTALS	112	60	0	52	38	14	
Percentage of Total				100%	73%	27%	

# Section 8 - Customer and stakeholder satisfaction

This section provides an indication of customer and stakeholder satisfaction through the following measures:

- Passenger complaints
- Customer satisfaction passenger operators
- Customer satisfaction freight operators
- Supplier satisfaction.

## **Passenger complaints**

## Definition and Reporting Method

The passenger complaints survey is a survey carried out by the SRA, which assesses direct feedback from passengers. It is defined as an expression of dissatisfaction by a customer or potential customer about service delivery or about company or industry policy, and is measured as the number of complaints per 100,000 journeys.

#### Results

Table 106	Passenger complaints						
	Unit of Measure	2003/04	2003/04	Variance	2004/05	2004/05	Variance
		Target	Actual		Target	Actual	
Passenger complai	nts Number/100k journeys	120	78	42	110	68	42

#### Commentary

Passenger complaints continue to decline markedly and run ahead of target. It is believed that the principal reason behind this improvement is the significant increase in train punctuality over the past year.

# **Customer satisfaction – passenger operators**

## **Definition and Reporting Method**

We have a measure for customer satisfaction both for passenger and freight operators, which is based on a questionnaire administered by MORI. One of the questions on the questionnaire is used for this measure and asks:

"Which of these best describes how you feel about Network Rail?"

The respondent chooses an answer from the following exhaustive list, with a numerical value assigned to the response on data analysis (as shown in brackets), but which is not explicit to the respondent:

I would be critical without being asked [-2]

I would be critical if someone asked my opinion [-1]

I would be neutral if someone asked my opinion [0]

I would speak highly if someone asked my opinion [1]

I think so much that I would speak highly of them without being asked [2]

By summing the scores and dividing by the number of respondents a weighted index score is derived:

#### Results

Table 107	Customer Satisfaction - passenger operators			
	Unit of Measure	2001/02	2004/05	Variance
Customer Sati	sfaction Index from -2 to +2	-1.00	-0.47	0.53

## Commentary

This indicates a substantial improvement in customer satisfaction, although this falls significantly short of target levels. The principal reason behind the improvement appears to be the substantial reduction in train delay minutes and Network Rail will be working with train operators in the coming months to understand how the index can be improved still further.

## **Customer satisfaction – freight operators**

## Definition and Reporting Method

This is the same as that for Customer satisfaction – passenger operators.

#### Results

Table 108	Customer Satisfaction – freight operators			
	Unit of Measure	2001/02	2004/05	Variance
Customer Sat	isfaction Index from -2 to +2	-0.50	-0.87	-0.37

## Commentary

The KPI indicates a significant decline in customer satisfaction amongst freight operators. Network Rail is concerned about this result and is meeting with freight operators to discuss the reasons behind this outcome. The company will then seek to address the causes of freight operator dissatisfaction.

# **Supplier Satisfaction**

## Definition and Reporting Method

The supplier satisfaction survey is also carried out by MORI on behalf of Network Rail and is based on the same methodology as that for the passenger and freight surveys.

#### Results

Table 109	Supplier Satisfaction – major suppliers								
		Unit of Measure	2001/02	2004/05	Variance				
Customer Sat	tisfaction	n/a	n/a	n/a	n/a				

## Commentary

Following the conclusion of the programme to bring maintenance in-house, it was agreed that the supplier satisfaction survey (which had previously surveyed the 20 largest suppliers) required fundamental review. As a result of this, the survey was not conducted in 2004/05.

The review is nearing its conclusion and it is anticipated that a new survey will be introduced in 2005/06.

# Appendix I – List of station condition

Table List of station	ons and their gra	des						
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05
Station Name	inclusion	Zone	Route	Scores	Scores	Scores	Scores	Scores
Abbey Wood	02/03	STH	Kent	1.83	1.83	2.09	2.09	2.09
Aber Station	04/05	GW	Western	1.98	2.17	2.04	2.04	2.42
Abercynon North		GW	Western	2.04	2.04	2.04	2.04	2.04
Abercynon South Station	04/05	GW	Western	1.90	1.90	1.90	1.90	2.30
Aberdare		GW	Western	2.06	2.06	2.06	2.06	2.06
Aberdeen	02/03	SCT	SCT	2.51	2.51	2.6	2.55	2.55
Aberdour	04/05	SCT	SCT	2.12	2.12	2.1	2.12	1.11
Aberdovey	03/04	GW	Western	1.66	1.66	1.66	1.77	1.77
Aberech	03/04	GW	Western	1.80	1.80	1.80	2.22	2.22
Abergavenny		GW	Western	2.05	2.05	2.05	2.05	2.05
Abergele And Pensarn	01/02	NW	LNW	2.84	2.84	2.84	2.84	2.84
Aberystwyth	99/00	GW	Western	1.85	1.85	1.85	1.85	1.85
Accrington	03/04	NW	LNW	2.88	2.88	2.88	2.21	2.21
Achanalt	01/02	SCT	SCT	2.08	2.08	2.08	2.08	2.08
Achnasheen	01/02	SCT	SCT	2.03	2.03	2.03	2.03	2.03
Achnashellach	01/02	SCT	SCT	2.11	2.11	2.11	2.11	2.11
Acklington	99/00	LNE	LNE	1.95	1.95	1.95	1.95	1.95
Acle	04/05	EA	Anglia	1.31	1.31	1.31	1.31	2.00
Acocks Green	01/02	MID	LNW	1.77	1.77	1.77	1.77	1.77
Acton Bridge	04/05	NW	LNW	2.34	2.34	2.34	2.34	2.40
Acton Central	03/04	EA	Anglia	2.10	2.10	2.10	2.12	2.12
Acton Mainline	01/02	GW	Western	1.91	1.91	1.91	1.91	1.91
Adderley Park	01/02	MID	LNW	1.99	1.99	1.99	1.99	1.99
Addiewell	02/03	SCT	SCT	2.44	2.44	2.7	2.68	2.68
Addlestone	04/05	STH	Wessex	2.37	2.37	2.37	2.37	2.60
Adisham	01/02	STH	Kent	3.00	3.00	3.00	3.00	3.00
Adlington (Cheshire)	01/02	NW	LNW	2.12	2.12	2.12	2.12	2.12
Adlington (Lancashire)	01/02	NW	LNW	2.10	2.10	2.10	2.10	2.10
Adwick	02/03	LNE	LNE	1.60	1.60	2.09	2.09	2.09
Aigburth	04/05	NW	LNW	2.41	2.41	2.41	2.41	2.12
Ainsdale	03/04	NW	LNW	2.02	2.02	2.02	2.07	2.07
Aintree	02/03	NW	LNW	2.37	2.37	1.44	1.44	1.44
Airbles	02/03	SCT	SCT	1.94	2.63	2.14	2.14	2.14
Airdrie	03/04	SCT	SCT	2.26	2.26	2.32	2.32	2.32
Albany Park	99/00	STH	Kent	2.48	2.48	2.48	2.48	2.48
Albrighton	02/03	MID	LNW	2.77	2.77	2.90	2.90	2.90
Alderley Edge	01/02	NW	LNW	1.99	1.99	1.99	1.99	1.99
Aldermaston	02/03	GW	Western	2.07	2.07	1.98	1.98	1.98
Aldershot	01/02	STH	Wessex	2.15	2.15	2.15	2.15	2.15
Aldrington	01/02	STH	Sussex	2.33	2.33	2.33	2.33	2.33
Alexandra Palace	03/04	LNE	LNE	2.53	2.53	2.53	2.18	2.18
Alexandra Parade	03/04	SCT	SCT	2.93	2.93	2.72	2.31	2.31
Alexandria	03/04	SCT	SCT	2.15	2.15	2.03	2.10	2.10
Alfreton	03/04	MID	LNE	1.29	1.29	1.32	1.64	1.64
Allens West	03/04	LNE	LNE	1.99	1.99	1.99	2.56	2.56
Allerton	04/05	NW	LNW	2.34	2.34	2.34	2.34	2.13
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05
Jacob Hallic	i cai Oi	20110		30/01	01,02	02,03	05,01	0 1, 03

Table List of statio	ns and their gra	.des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Alness	99/00	SCT	SCT	2.59	2.59	2.59	2.59	2.59
Alnmouth	99/00	LNE	LNE	2.08	2.08	2.08	2.08	2.08
Alresford	03/04	EA	Anglia	2.89	2.89	2.89	2.50	2.50
Alsager	01/02	NW	LNW	2.56	2.56	2.56	2.56	2.56
Althorne	04/05	EA	Anglia	2.14	2.14	2.14	2.14	2.00
Althorpe	03/04	LNE	LNE	2.50	2.50	2.50	2.71	2.71
Altnabreac	01/02	SCT	SCT	2.42	2.42	2.42	2.42	2.42
Alton	04/05	STH	Wessex	2.58	2.58	2.58	2.58	2.81
Altrincham	01/02	NW	LNW	2.20	2.20	2.20	2.20	2.20
Alvechurch	03/04	MID	LNW	2.54	2.54	2.54	1.70	1.70
Ambergate	00/01	MID	LNE	2.43	2.43	2.43	2.43	2.43
Amberley	03/04	STH	Sussex	2.48	2.48	2.48	2.94	2.94
Ammanford		GW	Western	2.25	2.25	2.25	2.25	2.25
Ancaster	02/03	LNE	LNE	2.16	2.16	2.60	2.60	2.60
Anderston	02/03	SCT	SCT	2.18	2.18	2.19	2.19	2.19
Andover	03/04	STH	Wessex	2.05	2.05	2.35	2.40	2.40
Anerley	01/02	STH	Sussex	2.14	2.14	2.14	2.14	2.14
Angel Road	01/02	EA	Anglia	2.11	2.11	2.11	2.11	2.11
Angmering	01/02	STH	Sussex	2.51	2.51	2.51	2.51	2.51
Annan	03/04	SCT	SCT	2.00	2.00	2.22	2.15	2.15
Anniesland	03/04	SCT	SCT	2.21	2.93	2.18	2.13	2.13
Ansdell & Fairhaven	04/05	NW	LNW	2.81	2.81	2.18	2.14	2.14
	04/05	NW	LNW	2.34	2.34	2.34	2.34	2.18
Appleby In Westmorland	99/00			2.66				
Appledore		STH	Kent		2.66	2.66	2.66	2.66
Appleford	03/04	GW	Western	2.06	2.06	2.06	2.53	2.53
Appley Bridge	01/02	NW	LNW	2.30	2.30	2.30	2.30	2.30
Apsley	03/04	MID	LNW	2.24	2.24	2.24	2.07	2.07
Arbroath	04/05	SCT	SCT	2.23	2.23	2.3	2.34	1.42
Ardgay	01/02	SCT	SCT	2.52	2.52	2.52	2.52	2.52
Ardlui	04/05	SCT	SCT	2.00	2.00	2.13	2.13	1.22
Ardrossan Harbour	03/04	SCT	SCT	2.17	2.17	2.17	2.14	2.14
Ardrossan South Beach	03/04	SCT	SCT	2.21	2.21	2.21	2.14	2.14
Ardrossan Town	03/04	SCT	SCT	2.05	2.05	2.05	2.05	2.05
Ardwick	01/02	NW	LNW	2.04	2.04	2.04	2.04	2.04
Argyle Street	02/03	SCT	SCT	2.29	2.29	2.23	2.23	2.23
Arisaig	01/02	SCT	SCT	2.32	2.32	2.32	2.32	2.32
Arlesey	99/00	LNE	LNE	2.00	2.00	2.00	2.00	2.00
Armathwaite	99/00	NW	LNW	2.04	2.04	2.04	2.04	2.04
Arnside	01/02	NW	LNW	2.25	2.25	2.25	2.25	2.25
Arram	99/00	LNE	LNE	2.14	2.14	2.14	2.14	2.14
Arrochar & Tarbet	04/05	SCT	SCT	3.00	3.00	2.14	2.14	1.20
Arundel	02/03	STH	Sussex	2.59	2.59	3.55	3.55	3.55
Ascot	98/99	STH	Wessex	2.40	2.40	2.40	2.40	2.40
Ascott-Under-Wychwood	04/05	GW	Western	2.50	2.50	2.50	2.50	3.13
Ash	01/02	STH	Wessex	2.23	2.23	2.23	2.23	2.23
Ash Vale	01/02	STH	Wessex	2.44	2.44	2.44	2.44	2.44
Ashburys	03/04	NW	LNW	1.99	1.99	1.99	2.03	2.03
Ashchurch For Tewsksbury		GW	Western	2.00	2.00	2.00	2.00	2.00
Ashfield	04/05	SCT	SCT	2.17	2.17	2.06	2.06	2.00
Ashford (Surrey)	03/04	STH	Sussex	2.48	2.48	2.81	2.82	2.82
Ashford International	99/00	STH	Kent	1.86	1.86	1.86	1.86	1.86
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of sta								
	inclusion			Scores	Scores	Scores	Scores	Scores
Ashley	04/05	NW	LNW	2.44	2.44	2.44	2.44	2.29
Ashtead	04/05	STH	Sussex	2.21	2.21	2.21	2.21	2.16
Ashton-Under-Lyne	01/02	NW	LNW	2.75	2.75	2.75	2.75	2.75
Ashurst	02/03	STH	Sussex	2.52	2.52	2.65	2.65	2.65
Ashurst (New Forest)	04/05	STH	Wessex	2.26	2.26	2.26	2.26	2.31
Ashwell & Morden	99/00	LNE	LNE	2.34	2.34	2.34	2.34	2.34
Askam	04/05	NW	LNW	3.14	3.14	3.14	3.14	2.26
Aslockton	99/00	MID	LNE	1.15	1.15	1.23	1.23	1.23
Aspatria	02/03	NW	LNW	1.98	1.98	2.23	2.23	2.23
Aspley Guise	00/01	MID	LNE	2.23	2.23	2.23	2.23	2.23
Aston	01/02	MID	LNW	1.10	1.10	1.10	1.10	1.10
Atherstone	02/03	MID	LNW	2.47	2.47	2.44	2.44	2.44
Atherton	99/00	NW	LNW	2.36	2.36	2.36	2.36	2.36
Attadale	01/02	SCT	SCT	2.00	2.00	2.00	2.00	2.00
Attenborough	00/01	MID	LNE	1.43	1.43	1.43	1.43	1.43
Attleborough	99/00	EA	Anglia	0.00	0.00	2.45	2.45	2.45
Auchinleck	03/04	SCT	SCT	2.11	2.11	2.11	2.12	2.12
Audley End	01/02	EA	Anglia	1.42	1.42	1.42	1.42	1.42
Aughton Park	01/02	NW	LNW	2.05	2.05	2.05	2.05	2.05
Aviemore	01/02	SCT	SCT	1.47	1.47	1.47	1.47	1.47
Avoncliff	03/04	GW	Western	2.20	2.20	1.70	1.83	1.83
Avonmouth	04/05	GW	Western	3.03	3.03	2.13	2.13	2.71
Axminster	03/04	STH	Wessex	2.55	2.55	2.40	2.38	2.38
Aylesbury	02/03	MID	LNW	2.14	2.14	1.99	1.99	1.99
Aylesford	03/04	STH	Kent	2.42	2.42	2.42	3.04	3.04
Aylesham	01/02	STH	Kent	2.78	2.78	2.78	2.78	2.78
Ayr	03/04	SCT	SCT	2.78	2.78	2.78	2.40	2.40
Bache	01/02	NW	LNW	1.97	1.97	1.97	1.97	1.97
	01/02	GW	Western	1.77	1.27	1.77	1.27	0.00
Baglan	01/02	STH	Wessex	2.09	2.09	2.09	2.09	2.09
Bagshot Baildon	01/02	LNE				2.30	2.30	
	02/03	SCT	LNE SCT	2.30	2.30	2.10	2.10	2.30
Baillieston								
Balcombe	04/05	STH	Sussex	2.43	2.43	2.43	2.43	3.02
Baldock	99/00	LNE	LNE	2.06	2.06	2.06	2.06	2.06
Balham	03/04	STH	Sussex	2.00	2.00	2.00	2.78	2.78
Balloch	03/04	SCT	SCT	2.07	2.07	2.20	2.22	2.22
Balmossie Halt	04/05	SCT	SCT	2.43	2.43	2.8	2.81	1.90
Bamber Bridge	03/04	NW	LNW	2.45	2.45	2.45	2.10	2.10
Bamford	01/02	NW	LNW	2.40	2.40	2.40	2.40	2.40
Banavie	01/02	SCT	SCT	2.13	2.13	2.13	2.13	2.13
Banbury	01/02	MID	LNW	1.45	1.45	1.45	1.45	1.45
Bangor		NW	LNW	2.10	2.10	2.10	2.10	2.10
Bank Hall	01/02	NW	LNW	2.15	2.15	2.15	2.15	2.15
Banstead	99/00	STH	Sussex	2.42	2.42	2.42	2.42	2.42
Barassie	03/04	SCT	SCT	2.17	2.17	2.17	2.17	2.17
Bardon Mill	99/00	LNE	LNE	2.40	2.40	2.40	2.40	2.40
Bare Lane	02/03	NW	LNW	2.23	2.23	2.04	2.04	2.04
Bargeddie	02/03	SCT	SCT	2.22	2.22	2.17	2.17	2.17
Bargoed		GW	Western	2.03	2.03	2.03	2.03	2.03
Barking	04/05	EA	Anglia	1.88	1.88	1.92	1.92	2.09
Barlaston	00/01	NW	LNW	2.86	2.86	2.86	2.86	2.86
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of sta	ations and their grades							
	inclusion			Scores	Scores	Scores	Scores	Scores
Barming	03/04	STH	Kent	2.43	2.43	2.43	2.44	2.44
Barmouth	03/04	GW	Western	1.99	1.99	1.99	1.96	1.96
Barnehurst	04/05	STH	Kent	2.31	2.31	2.37	2.37	2.12
Barnes Bridge Station	03/04	STH	Wessex	1.71	1.71	1.15	1.99	1.99
Barnes Station	03/04	STH	Wessex	2.45	2.45	2.77	2.79	2.79
Barnetby	02/03	LNE	LNE	1.49	1.49	1.83	1.83	1.83
Barnham	02/03	STH	Sussex	2.53	2.53	2.94	2.94	2.94
Barnhill	03/04	SCT	SCT	2.21	2.21	2.24	2.24	2.24
Barnsley Exchange	03/04	LNE	LNE	1.10	1.10	1.10	1.10	1.10
Barnstaple	03/04	GW	Western	2.20	2.20	2.20	1.89	1.89
Barnt Green	01/02	MID	LNW	2.24	2.24	2.24	2.24	2.24
Barrhead	03/04	SCT	SCT	3.00	3.00	2.30	2.30	2.30
Barrhill	03/04	SCT	SCT	1.93	1.93	1.93	1.84	1.84
Barrow Haven	03/04	LNE	LNE	2.70	2.70	2.70	2.48	2.48
Barrow Upon Soar	00/01	MID	LNE	2.11	2.11	2.11	2.11	2.11
Barrow-in-Furness	01/02	NW	LNW	2.17	2.17	2.17	2.17	2.17
Barry (Town)	01/02	GW	Western	1.94	1.94	1.94	1.94	1.94
Barry Docks		GW	Western	2.12	2.12	2.12	2.12	2.12
Barry Island		GW	Western	2.00	2.00	2.00	2.00	2.00
Barry Links	04/05	SCT	SCT	2.76	2.76	2.5	2.49	1.33
Barton On Humber	03/04	LNE	LNE	2.75	2.35	2.35	2.35	2.35
BASILDON STATION	03/04	EA		0.00	0.00	2.14	2.13	2.13
	03/04	STH	Anglia	2.22		2.14	2.13	2.13
Basingstoke			Wessex		2.22			
Bat & Ball	02/03	STH	Kent	2.44	2.44	2.67	2.67	2.67
Bath Spa	02/03	GW	Western	2.21	2.21	2.13	2.12	2.12
Bathgate	04/05	SCT	SCT	2.07	2.07	2.07	2.07	1.90
Batley	03/04	LNE	LNE	2.00	2.00	2.00	2.19	2.19
Battersby	02/03	LNE	LNE	2.45	2.45	2.24	2.24	2.24
Battersea Park	03/04	STH	Sussex	2.23	2.23	2.23	2.88	2.88
Battle	02/03	STH	Kent	2.44	2.44	2.56	2.56	2.56
Battlesbridge	03/04	EA	Anglia	0.00	0.00	2.52	2.41	2.41
Bayford	03/04	LNE	LNE	2.83	2.83	2.83	1.96	1.96
Beaconsfield	04/05	MID	LNW	2.06	2.06	2.06	2.06	2.08
Bearley		MID	LNW	3.33	3.33	3.33	3.33	3.33
Bearsden	03/04	SCT	SCT	2.21	2.21	2.18	2.17	2.17
Bearsted	01/02	STH	Kent	2.75	2.75	2.75	2.75	2.75
Beasdale	01/02	SCT	SCT	2.10	2.10	2.10	2.10	2.10
Beaulieu Road	04/05	STH	Wessex	2.46	2.46	2.46	2.46	2.94
Beauly	02/03	SCT	SCT	0.00		1.00	1.00	1.00
Bebbington	01/02	NW	LNW	2.25	2.25	2.25	2.25	2.25
Beccles	04/05	EA	Anglia	1.23	1.23	1.23	1.23	1.83
Beckenham Hill	03/04	STH	Kent	2.37	2.37	2.37	2.95	2.95
Beckenham Junction	03/04	STH	Kent	2.54	2.54	2.54	2.82	2.82
Bedford	00/01	MID	LNE	1.67	1.67	1.67	1.67	1.67
Bedford St John'S	03/04	MID	LNE	1.67	1.67	1.67	2.20	2.20
Bedhampton	04/05	STH	Wessex	2.41	2.41	2.41	2.41	2.98
Bedminster	01/02	GW	Western	2.24	2.24	2.24	1.96	1.96
Bedworth	04/05	MID	LNW	1.91	1.91	2.37	2.37	2.81
Bedwyn	02/03	GW	Western	2.10	2.10	2.12	2.12	2.12
Beeston	00/01	MID	LNE	1.21	1.21	1.21	1.21	1.21
Bekesbourne Station	03/04	STH	Kent	2.34	2.34	2.34	3.02	3.02
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of sta			-					
	inclusion			Scores	Scores	Scores	Scores	Scores
Belle Vue	02/03	NW	LNW	2.48	2.48	1.98	1.98	1.98
Bellgrove	03/04	SCT	SCT	3.00	3.00	3.00	2.20	2.20
Bellingham	99/00	STH	Kent	2.43	2.43	2.43	2.43	2.43
Bellshill	02/03	SCT	SCT	3.01	3.01	2.48	2.48	2.48
Belmont	99/00	STH	Sussex	2.26	2.26	2.26	2.26	2.26
Belper	02/03	MID	LNE	1.80	1.80	2.28	2.28	2.28
Beltring	99/00	STH	Kent	2.26	2.26	2.26	2.26	2.26
Belvedere	02/03	STH	Kent	1.83	1.83	1.96	1.96	1.96
Bempton	99/00	LNE	LNE	1.72	1.72	1.72	1.72	1.72
Ben Rhydding	01/02	LNE	LNE	2.21	2.21	2.21	2.21	2.21
Benfleet	01/02	EA	Anglia	1.88	1.88	1.99	1.99	1.99
Bentham	01/02	NW	LNW	2.57	2.57	2.57	2.57	2.57
Bentley	01/02	STH	Wessex	2.45	2.45	2.45	2.45	2.45
Bentley [S.Yorks]	01/02	LNE	LNE	1.40	1.40	1.40	1.40	1.40
Bere Alston		GW	Western	2.16	2.16	2.16	2.16	2.16
Bere Ferrers		GW	Western	2.16	2.16	2.16	2.16	2.16
Berkhamsted	02/03	MID	LNW	1.98	1.98	1.97	1.97	1.97
Berkswell	01/02	MID	LNW	1.63	1.63	1.63	1.63	1.63
Berney Arms	03/04	EA	Anglia	3.20	3.20	3.20	3.22	3.22
Berry Brow	02/03	LNE	LNE	2.29	2.29	2.29	2.29	2.29
Berrylands	03/04	STH	Wessex	2.45	2.45	2.74	2.85	2.85
Berwick	02/03	STH	Sussex	2.60	2.60	3.61	3.61	3.61
Berwick-Upon-Tweed	99/00	LNE	LNE	2.14	2.14	2.14	2.14	2.14
Bescar Lane	03/04	NW	LNW	2.55	2.55	2.55	2.25	2.25
Bescot	01/02	MID	LNW	1.26	1.26	1.26	1.26	1.26
Betchworth	01/02	STH	Wessex	2.68	2.68	2.68	2.68	2.68
Bethnal Green	00/01	EA	Anglia	2.19	2.19	2.19	2.19	2.19
Betws-Y-Coed	04/05	NW	LNW	2.31	2.31	2.31	2.31	2.33
Beverley	99/00	LNE	LNE	2.26	2.26	2.26	2.26	2.26
Bexhill	02/03	STH	Sussex	2.11	2.11	3.28	3.28	3.28
Bexley	04/05	STH	Kent	2.57	2.57	2.57	2.57	2.31
Bexleyheath	01/02	STH	Kent	2.43	2.43	2.43	2.43	2.43
Bicester North	03/04	MID	LNW	2.03	2.43	2.43	1.82	1.82
Bicester Station	04/05	GW	Western	2.46		2.46	2.46	2.77
	03/04	STH		2.42	2.46	2.42	2.85	2.85
Bickley Bidston	03/04	NW	Kent LNW		2.42			
	99/00			3.17	3.17	3.17	3.17	3.17
Biggleswade		LNE	LNE	2.06	2.06	2.06	2.06	2.06
Bilbrook	04/05	MID	LNW	1.52	1.52	1.52	1.52	2.14
Billericay	01/02	EA	Anglia	2.10	2.10	2.14	2.14	2.14
Billingham	02/03	LNE	LNE	2.17	2.17	2.40	2.40	2.40
Billingshurst	02/03	STH	Sussex	2.52	2.52	2.90	2.90	2.90
Bingham	99/00	MID	LNE	1.28	1.28	1.28	1.28	1.28
Bingley	03/04	LNE	LNE	2.50	2.50	2.50	2.61	2.61
Birchgrove Station	04/05	GW	Western	2.03	2.03	2.01	2.01	2.34
Birchington-On-Sea	03/04	STH	Kent	2.44	2.44	2.44	2.73	2.73
Birchwood	01/02	NW	LNW	2.01	2.01	2.01	2.01	2.01
Birkbeck	99/00	STH	Sussex	2.18	2.18	2.18	2.18	2.18
Birkdale	03/04	NW	LNW	2.35	2.35	2.35	2.14	2.14
Birkenhead Central	04/05	NW	LNW	2.35	2.35	2.35	2.35	2.12
Birkenhead North	01/02	NW	LNW	2.24	2.24	2.24	2.24	2.24
Birkenhead Park	01/02	NW	LNW	2.04	2.04	2.04	2.04	2.04
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of stations and their grades									
	inclusion			Scores	Scores	Scores	Scores	Scores	
Birmingham International	01/02	MID	LNW	1.94	1.94	1.94	1.94	1.94	
Birmingham Moor Street	01/02	MID	LNW	1.83	1.83	1.83	1.83	1.83	
Birmingham New Street	04/05	MJS	Managed Stations	1.81	1.81	1.77	1.70	1.70	
Birmingham Snow Hill	01/02	MID	LNW	1.78	1.78	1.78	1.78	1.78	
Bishop Auckland	03/04	LNE	LNE	1.85	1.85	1.85	1.93	1.93	
Bishopbriggs	04/05	SCT	SCT	1.47	1.47	1.6	1.62	1.19	
Bishops Stortford	03/04	EA	Anglia	2.93	2.93	2.93	2.26	2.26	
Bishopstone	99/00	STH	Sussex	2.67	2.67	2.67	2.67	2.67	
Bishopton	01/02	SCT	SCT	2.00	2.00	2.00	2.00	2.00	
Bitterne	04/05	STH	Wessex	2.16	2.16	2.16	2.16	2.97	
Blackburn	01/02	NW	LNW	2.83	2.83	2.83	2.83	2.83	
Blackfriars	99/00	STH	Sussex	1.74	1.74	1.74	1.74	1.74	
Blackheath	01/02	STH	Kent	2.38	2.38	2.38	2.38	2.38	
Blackhorse Road	02/03	EA	Anglia			1.97	1.97	1.97	
Blackpool North	02/03	NW	LNW	2.37	2.37	2.17	2.17	2.17	
Blackpool Pleasure Beach	03/04	NW	LNW	2.84	2.84	2.84	2.27	2.27	
Blackpool South	03/04	NW	LNW	2.39	2.39	2.39	2.00	2.00	
Blackrod	01/02	NW	LNW	1.97	1.97	1.97	1.97	1.97	
Blackwater	01/02	STH	Wessex	2.65	2.65	2.65	2.65	2.65	
Blaenau Ffestiniog	04/05	NW	LNW	2.06	2.06	2.06	2.06	2.03	
Blair Atholl	01/02	SCT	SCT	2.05	2.05	2.05	2.05	2.05	
Blairhill	03/04	SCT	SCT	2.19	2.19	2.19	2.17	2.17	
Blake Street	02/03	MID	LNW	1.81	1.81	1.69	1.69	1.69	
Blakedown	04/05	MID	LNW	1.83	1.83	1.83	1.83	2.57	
Blantyre	02/03	SCT	SCT	1.91	2.72	2.14	2.14	2.14	
Blaydon	03/04	LNE	LNE	2.27	2.27	2.27	2.24	2.24	
Bleasby	02/03	MID	LNE	1.33	1.33	1.77	1.77	1.77	
Bletchley	02/03	MID	LNW	2.15	2.15	1.90	1.90	1.90	
Bloxwich	04/05	MID	LNW	2.47	2.47	2.47	2.49	2.22	
Bloxwich North	00/01	MID	LNW	2.40	2.40	2.40	2.40	2.40	
Blundellsands & Crosby	04/05	NW	LNW	2.53	2.53	2.53	2.53	2.18	
Blythe Bridge	03/04	MID	LNE	2.82	2.82	2.82	2.42	2.42	
Bodmin Parkway	01/02	GW	Western	2.23	2.23	2.23	2.20	2.20	
Bodorgan	01/02	NW	LNW	2.54	2.54	2.50	2.50	2.50	
Bognor Regis	01/02	STH	Sussex	2.26	2.26	2.26	2.26	2.26	
Bogston	01/02	SCT	SCT	2.69	2.69	2.69	2.69	2.69	
Bolton	01/02	NW	LNW	2.20	2.20	2.20	2.20	2.20	
Bolton On Dearne	03/04	LNE	LNE	2.44	2.44	2.44	2.34	2.34	
Bookham	99/00	STH	Wessex	2.39	2.39	2.39	2.39	2.39	
	02/03		LNW						
Bootle  Reatle New Street	04/05	NW NW	LNW	2.14 1.97	1.97	2.02 1.97	2.02 1.97	2.02	
Bootle New Strand								1.68	
Bootle Oriel Road	01/02	NW	LNW	2.20	2.20	2.20	2.20	2.20	
Bordesley	01/02	MID	LNW	2.42	2.42	2.42	2.42	2.42	
Borough Green & Wrotham	01/02	STH	Kent	2.38	2.38	2.38	2.38	2.38	
Borth	03/04	GW	Western	2.12	2.12	2.12	1.82	1.82	
Bosham	02/03	STH	Sussex	2.51	2.51	3.00	3.00	3.00	
Boston	01/02	LNE	LNE	2.56	2.56	2.56	2.56	2.56	
Botley	04/05	STH	Wessex	1.97	1.97	1.97	1.97	2.56	
Bottesford	00/01	MID	LNE	2.23	2.23	2.23	2.23	2.23	
Bourne End		GW	Western	1.95	1.95	1.95	1.95	1.95	
	0.4:								
Bournemouth Station Name	04/05 <b>Year of</b>	STH <b>Zone</b>	Wessex Route	2.37 <b>00/01</b>	2.37 <b>01/02</b>	2.37 <b>02/03</b>	2.37 <b>03/04</b>	2.10 <b>04/05</b>	

Table Lis	st of stations and their gra	ations and their grades						
	inclusion			Scores	Scores	Scores	Scores	Scores
Bourneville	01/02	MID	LNW	1.96	1.96	1.96	1.96	1.96
Bow Brickhill	00/01	MID	LNE	1.67	1.67	1.67	1.67	1.67
Bowes Park	99/00	LNE	LNE	2.15	2.15	2.15	2.15	2.15
Bowling	03/04	SCT	SCT	2.90	2.68	2.16	2.35	2.35
Boxhill & Westhumb	le 01/02	STH	Sussex	2.41	2.41	2.41	2.41	2.41
Bracknell	98/99	STH	Wessex	2.40	2.40	2.40	2.40	2.40
Bradford Forster Squ	are 02/03	LNE	LNE	1.00	1.00	1.03	1.03	1.03
Bradford Interchange		LNE	LNE	1.20	1.20	1.20	1.20	1.20
Bradford on Avon	04/05	GW	Western	2.21	2.21	2.26	2.26	2.48
Brading	99/00	STH	Wessex	2.41	2.41	2.41	2.41	2.41
Braintree	04/05	EA	Anglia	1.96	1.96	1.96	1.96	1.95
Braintree Freeport	04/05	EA	Anglia	0.00	0.00	1.97	1.97	1.89
Bramhall	02/03	NW	LNW	2.33	2.33	1.54	1.54	1.54
Bramley	02/03	LNE	LNE	1.30	1.30	1.30	1.30	1.30
Bramley [Hants]	98/99	STH	Wessex	2.33	2.33	2.33	2.33	2.33
Brampton	03/04	LNE	LNE	2.61	2.61	2.61	2.28	2.28
Brampton [Suffolk]	00/01	EA	Anglia	2.38	2.38	2.38	2.26	2.20
Branchton	01/02	SCT	SCT	2.45	2.45	2.45	2.45	2.45
Brandon	03/04	EA		0.00	0.00	2.83	2.44	2.44
Branksome	03/04	STH	Anglia Wessex	2.46			2.46	2.90
	02/03		LNW		2.46	2.46		
Braystones		NW		2.48	2.48	2.04	2.04	2.04
Bredbury	04/05	NW	LNW	2.31	2.31	2.31	2.31	2.16
Breich	02/03	SCT	SCT	2.50	2.50	2.6	2.60	2.60
Brentford	03/04	STH	Wessex	2.04	2.04	1.52	2.51	2.51
Brentwood	01/02	EA	Anglia	2.20	2.20	2.35	2.35	2.35
Bricket Wood	03/04	MID	LNW	1.84	1.84	1.84	2.43	2.43
Bridge of Allan	01/02	SCT	SCT	2.69	2.69	2.69	2.69	2.69
Bridge Of Orchy	04/05	SCT	SCT	2.72	2.72	2.72	2.72	1.12
Bridgend		GW	Western	2.09	2.09	2.09	2.09	2.09
Bridgeton	02/03	SCT	SCT	2.17	2.17	2.18	2.18	2.18
Bridgwater	01/02	GW	Western	2.30	2.30	2.30	2.30	2.30
Bridlington	99/00	LNE	LNE	2.43	2.43	2.43	2.43	2.43
Brierfield	02/03	NW	LNW	2.60	2.60	2.05	2.05	2.05
Brigg	03/04	LNE	LNE	2.67	2.67	2.67	2.66	2.66
Brighouse	02/03	LNE	LNE	0.00		1.36	1.36	1.36
Brighton	01/02	STH	Sussex	2.51	2.51	2.51	2.51	2.51
Brimsdown	03/04	EA	Anglia	2.06	2.06	2.06	2.04	2.04
Brinnington	04/05	NW	LNW	2.22	2.22	2.22	2.22	2.28
Bristol Parkway	03/04	GW	Western	2.10	2.10	2.10	1.20	1.20
Bristol Temple Mead	s 02/03	GW	Western	2.90	2.90	2.05	2.05	2.05
Brithdir	04/05	GW	Western	1.80	1.80	1.80	1.80	1.99
British Steel Redcar	02/03	LNE	LNE	2.69	2.69	2.36	2.36	2.36
Briton Ferry		GW	Western	2.00	2.00	2.00	2.00	2.00
Brixton	99/00	STH	Kent	2.02	2.02	2.02	2.02	2.02
Broad Green	03/04	NW	LNW	2.27	2.27	2.27	2.06	2.06
Broadbottom	04/05	NW	LNW	2.15	2.15	2.15	2.15	2.61
Broadstairs	01/02	STH	Kent	2.23	2.23	2.23	2.23	2.23
Brockenhurst	04/05	STH	Wessex	2.60	2.60	2.60	2.60	2.44
Brockholes	02/03	LNE	LNE	2.64	2.64	2.52	2.52	2.52
Brockley	02/03	STH	Sussex	2.11	2.11	2.58	2.58	2.58
Brockley Whins	99/00	LNE	LNE	2.13	2.13	2.13	2.13	2.13
DI OCKICY VVIIIIS	77100	LINL	LINL	۷.۱۷	۷.۱۷	۷,۱۷	۷.۱۷	04/05

Table	List of stations a	st of stations and their grades							
		inclusion			Scores	Scores	Scores	Scores	Scores
Bromborough	(	03/04	NW	LNW	2.09	2.09	2.09	2.05	2.05
Bromborough Rak	ie l	01/02	NW	LNW	2.09	2.09	2.09	2.09	2.09
Bromley Cross	(	03/04	NW	LNW	2.31	2.31	2.31	2.10	2.10
Bromley North	(	02/03	STH	Kent	2.43	2.43	2.89	2.89	2.89
Bromley South	(	04/05	STH	Kent	2.51	2.51	2.51	2.51	2.26
Bromsgrove			GW	Western	2.00	2.00	2.00	2.00	2.00
Brondesbury	(	04/05	EA	Anglia	1.73	1.73	1.73	1.73	1.73
Brondesbury Park		04/05	EA	Anglia	1.73	1.73	1.73	1.73	1.75
Brookmans Park		03/04	LNE	LNE	2.53	2.53	2.53	2.07	2.07
Brookwood		01/02	STH	Wessex	2.32	2.32	2.32	2.32	2.32
Broome			GW	Western	2.00	2.00	2.00	2.00	2.00
Broomfleet		99/00	LNE	LNE	2.25	2.25	2.25	2.25	2.25
Brora		01/02	SCT	SCT	2.29	2.29	2.32	2.32	2.32
Brough		99/00	LNE	LNE	2.14	2.14	2.14	2.14	2.14
Broughty Ferry		04/05	SCT	SCT	1.54	1.54	2.1	2.10	1.37
Broxbourne		04/05	EA	Anglia	2.01	2.01	2.01	2.01	2.01
Bruce Grove		02/03	EA	Anglia	2.00	2.00	2.09	2.09	2.09
Brundall		03/04	EA	Anglia	2.55	2.55	2.55	2.39	2.39
Brundall Gardens		03/04	EA		2.19	2.19	2.19	2.47	2.47
		04/05	SCT	Anglia SCT	0.00	2.17	1.00	1.00	1.00
Brunstane		04/05 04/05	NW	LNW	1.00	1.00	1.00	1.00	1.00
Brunswick									
Bruton		03/04	GW	Western	2.88	2.88	2.88	2.17	2.17
Bryn		01/02	NW	LNW	2.71	2.71	2.72	2.72	2.72
Buckenham		04/05	EA	Anglia	1.72	1.72	1.72	1.72	2.38
Buckley		02/03	NW	LNW	2.30	2.30	2.13	2.13	2.13
Bucknell			GW	Western	2.00	2.00	2.00	2.00	2.00
Bugle			GW	Western	2.08	2.08	2.08	2.08	2.08
Builth Road			GW	Western	2.08	2.08	2.08	2.08	2.08
Bulwell		00/01	MID	LNE	1.77	1.77	1.77	1.77	1.77
Bures		00/01	EA	Anglia	2.25	2.25	2.25	2.25	2.25
Burgess Hill		02/03	STH	Sussex	2.37	2.37	3.22	3.22	3.22
Burley Park		03/04	LNE	LNE	1.60	1.60	3.00	1.99	1.99
Burley-in-Wharfda		01/02	LNE	LNE	2.10	2.10	2.10	2.10	2.10
Burnage		04/05	NW	LNW	2.20	2.20	2.20	2.20	2.13
Burneside	(	03/04	NW	LNW	2.23	2.23	2.23	2.15	2.15
Burnham		02/03	GW	Western	2.10	2.10	2.74	2.74	2.74
Burnham-On-Cro	uch	02/03	EA	Anglia			2.07	2.07	2.07
Burnley Barracks	(	04/05	NW	LNW	3.10	3.10	3.10	2.06	1.79
Burnley Central			NW	LNW	2.80	2.80	2.80	2.80	2.80
Burnley Mancheste	er Rd	03/04	NW	LNW	1.96	1.96	1.96	2.07	2.07
Burnside		02/03	SCT	SCT	2.19	2.19	2.17	2.17	2.17
Burntisland	(	04/05	SCT	SCT	2.21	2.21	2.2	2.22	1.41
Burscough Bridge	(	02/03	NW	LNW	1.80	1.80	1.51	1.51	1.51
Burscough Junction		01/02	NW	LNW	1.94	1.94	1.94	1.94	1.94
Burseldon		04/05	STH	Wessex	2.21	2.21	2.21	2.21	2.44
Burton Joyce		00/01	MID	LNE	1.36	1.36	1.36	1.36	1.36
Burton-on-Trent		02/03	MID	LNE	1.24	1.24	1.60	1.60	1.60
Bury St Edmunds		•	EA	Anglia	2.02	2.02	2.02	2.02	2.02
Busby		04/05	SCT	SCT	2.38	2.38	2.02	2.02	1.90
Bush Hill Park		01/02	EA	Anglia	1.91	1.91	1.91	1.91	1.91
Bushey		02/03	MID	LNW	2.32	2.32	2.00	2.00	2.00
Station Name		Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of station	tions and their grades							
	inclusion			Scores	Scores	Scores	Scores	Scores
Butlers Lane	02/03	MID	LNW	1.33	1.33	1.34	1.34	1.34
Butlins Penychain	03/04	GW	Western	1.56	1.56	1.56	1.65	1.65
Buxted	98/99	STH	Sussex	2.43	2.43	2.43	2.43	2.43
Buxton	04/05	NW	LNW	2.61	2.61	2.61	2.61	2.16
Byfleet & New Haw	98/99	STH	Wessex	2.12	2.12	2.12	2.12	2.12
Bynea		GW	Western	2.30	2.30	2.30	2.30	2.30
Cadoxton		GW	Western	1.94	1.94	1.94	1.94	1.94
Caergwrle	01/02	NW	LNW	2.21	2.21	2.21	2.21	2.21
Caerphilly Station	04/05	GW	Western	2.04	2.68	2.14	2.14	2.18
Caersws	03/04	GW	Western	2.08	2.08	2.08	1.99	1.99
Caldicot Station	04/05	GW	Western	2.03	2.03	2.03	2.03	1.98
Caledonian Road & Barnsbury		EA	Anglia	2.10	2.10	2.10	2.10	2.10
Calstock		GW	Western	2.24	2.24	2.24	2.24	2.24
Cam & Dursley Station	04/05	GW	Western	2.05	2.05	2.05	2.05	2.57
Camberley	04/05	STH	Wessex	2.49	2.49	2.49	2.49	2.66
Camborne	01/02	GW	Western	2.30	2.30	2.30	2.24	2.24
Cambridge	04/05	EA	Anglia	1.99	1.99	2.02	2.02	2.03
Cambridge Heath	00/01	EA	Anglia	2.13	2.13	2.13	2.13	2.13
Cambuslang	02/03	SCT	SCT	2.25	2.25	2.24	2.24	2.24
Camden Road	02/03	EA	Anglia	0.00	0.00	1.94	1.94	1.94
Camelon	02/03	SCT	SCT	2.34	2.26	2.2	2.19	2.19
Canley	01/02	MID	LNW	1.24	1.24	1.24	1.24	1.24
Canning Town	02/03	EA	Anglia	1.00	1.00	1.00	1.00	1.00
Cannock	02/03	MID	LNW	1.95	1.95	2.23	2.23	2.23
Cannon Street	04/05	MJS	Managed Stations	1.96	1.96	1.96	1.73	2.04
Canonbury	04/05	EA	Anglia Anglia	2.45	2.45	2.45	2.45	2.31
Canterbury East	04/05	STH	Kent	2.56	2.56	2.56	2.56	2.26
Canterbury West	03/04	STH	Kent	2.27	2.27	2.27	3.01	3.01
Cantley	03/04	EA	Anglia	2.76	2.76	2.76	2.68	2.68
Capenhurst	03/04	NW	LNW	2.13	2.13	2.13	2.11	2.11
Carbis Bay	04/05	GW	Western	2.05	2.05	2.05	2.05	3.01
Cardenden	04/05	SCT	SCT	2.22	2.22	2.2	2.24	1.33
Cardiff Bay Station	04/05	GW	Western	2.00	2.00	2.19	2.19	2.07
Cardiff Central	03/04	GW	Western	2.16	2.16	2.16	2.15	2.15
Cardiff Queen Street	03/01	GW	Western	2.05	2.05	2.05	2.05	2.15
Cardonald	03/04	SCT	SCT	2.03	2.03	2.03	2.03	2.03
Cardonaid	02/03	SCT	SCT	2.13	2.72	2.13	2.16	2.16
Carfin	01/02	SCT	SCT	1.83	1.83	1.83	1.83	1.83
Cark and Cartmel	01/02	NW	LNW	2.23	2.23	2.23	2.23	2.23
Carlisle Cartifiei	02/03	NW	LNW	2.23	2.23	2.23	2.23	2.23
Carlton	00/01	MID	LNE	1.45	1.45	1.45	1.45	1.45
Carluke	02/03	SCT	SCT	1.45	2.80	2.08	2.08	2.08
Carmarthen Station	04/05	GW	Western	2.08	2.08	2.08	2.08	2.22
Carmyle	02/03	SCT	SCT	2.16	2.16	2.13	2.13	2.13
Carnforth	01/02	NW	LNW	1.99	1.99	1.99	1.99	1.99
Carnoustie	04/05	SCT	SCT	2.22	2.22	2.6	2.57	1.44
Carnoustie Golf Street	04/05	SCT	SCT	3.02	3.02	1.6	1.63	1.22
Carntyne	03/04	SCT	SCT	2.39	2.39	2.20	2.20	2.20
Carpenders Park	03/04	MID	LNW	2.48	2.48	2.48	2.04	2.04
Carrbridge	01/02	SCT	SCT	2.23	2.23	2.23	2.23	2.23
Carshalton	04/05	STH	Sussex	2.43	2.43	2.43	2.43	2.28
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of stati	ons and their gra							
	inclusion			Scores	Scores	Scores	Scores	Scores
Carshalton Beeches	03/04	STH	Sussex	2.40	2.40	2.40	2.74	2.74
Carstairs	02/03	SCT	SCT	1.22	1.22	1.29	1.29	1.29
Cartsdyke	01/02	SCT	SCT	2.00	2.00	2.00	2.00	2.00
Castle Bar Park	04/05	GW	Western	2.09	2.09	2.09	2.09	2.39
Castle Cary	04/05	GW	Western	2.30	2.30	2.15	2.15	2.52
Castleford Central	03/04	LNE	LNE	1.90	1.90	1.90	2.22	2.22
Castleton	01/02	NW	LNW	2.19	2.19	2.19	2.19	2.19
Castleton Moor	99/00	LNE	LNE	2.67	2.67	2.67	2.67	2.67
Caterham	04/05	STH	Sussex	2.50	2.50	2.50	2.50	2.51
Catford	02/03	STH	Kent	2.45	2.45	2.95	2.95	2.95
Catford Bridge	04/05	STH	Kent	2.42	2.42	2.42	2.42	2.59
Cathays		GW	Western	2.88	2.88	2.88	2.88	2.88
Cathcart	02/03	SCT	SCT	2.07	2.07	2.14	2.14	2.14
Cattal	99/00	LNE	LNE	1.76	1.76	1.76	1.76	1.76
Causeland	03/04	GW	Western	2.00	2.00	2.00	2.06	2.06
Cefn-Y-Bedd	02/03	NW	LNW	3.00	3.00	1.95	1.95	1.95
Chadwell Heath	01/02	EA	Anglia	2.25	2.25	2.25	2.25	2.25
Chafford Hundred	00/01	EA	Anglia	1.30	1.30	1.30	1.30	1.30
Chalkwell	02/03	EA	Anglia	1.50	1.50	1.94	1.94	1.94
Chandlers Ford	02/03	STH	Wessex			1.7 1	1.7 1	1.7 1
Chapel-en-le-Frith	01/02	NW	LNW	3.20	3.20	3.20	3.20	3.20
Chapeltown	99/00	LNE	LNE	2.34	2.34	2.34	2.34	2.34
Chapleton	03/04	GW	Western	2.40	2.40	2.40	2.35	2.35
Chappel & Wakes Colne	03/04	EA		2.40	2.40	2.40	2.02	2.04
	04/05	STH	Anglia Kent	2.02	2.46	2.46	2.46	2.63
Charing Chass	03/04	SCT	SCT	1.67	1.67	1.67	2.46	2.00
Charing Cross	03/04	GW	Western	2.04	2.04	2.04	2.56	2.56
Charlbury	02/03					2.17		
Charlton		STH	Kent	2.00	2.00		2.17	2.17
Chartham	99/00	STH	Kent	2.37	2.37	2.37	2.37	2.37
Chassen Road	03/04	NW	LNW	2.28	2.28	2.28	2.01	2.01
Chatham	01/02	STH	Kent	2.48	2.48	2.48	2.48	2.48
Chathill	03/04	LNE	LNE	2.37	2.37	2.37	2.46	2.46
Cheadle Hulme	02/03	NW	LNW	2.08	2.08	2.07	2.07	2.07
Cheam	02/03	STH	Sussex	2.36	2.36	2.97	2.97	2.97
Cheddington	03/04	MID	LNW	2.12	2.12	2.12	2.03	2.03
Chelford	01/02	NW	LNW	2.18	2.18	2.18	2.18	2.18
Chelmsford	01/02	EA	Anglia	1.82	1.82	1.82	1.82	1.82
Chelsfield	99/00	STH	Kent	2.51	2.51	2.51	2.51	2.51
Cheltenham	03/04	GW	Western	2.48	2.48	2.48	2.28	2.28
Chepstow	04/05	GW	Western	2.00	2.00	2.00	2.00	2.75
Cherry Tree	03/04	NW	LNW	2.49	2.49	2.49	2.14	2.14
Chertsey	04/05	STH	Wessex	2.55	2.55	2.55	2.55	2.91
Cheshunt	02/03	EA	Anglia	0.00	0.00	2.16	2.16	2.16
Chessington North		STH	Wessex	2.52	2.52	2.52	2.52	2.52
Chessington South	98/99	STH	Wessex	2.46	2.46	2.46	2.46	2.46
Chester Midland	04/05	NW	LNW	2.42	2.42	2.42	2.42	2.17
Chester Road	04/05	MID	LNW	1.30	1.30	1.30	1.30	2.12
Chesterfield	02/03	LNE	LNE	2.48	2.48	1.36	1.36	1.36
Chester-Le-Street	99/00	LNE	LNE	1.69	1.69	1.69	1.69	1.69
Chestfield And Swalecliffe	03/04	STH	Kent	2.56	2.56	2.56	2.91	2.91
Chetnole	01/02	STH	Wessex	3.30	3.30	3.30	3.30	3.30
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of station	s and their gra	ıdes						
	inclusion			Scores	Scores	Scores	Scores	Scores
Chichester	03/04	STH	Sussex	2.53	2.53	2.53	2.98	2.98
Chilham	99/00	STH	Kent	2.91	2.91	2.91	2.91	2.91
Chilworth	01/02	STH	Wessex	2.81	2.81	2.81	2.81	2.81
Chingford	01/02	EA	Anglia	1.99	1.99	1.99	2.03	2.03
Chinley	01/02	NW	LNW	2.07	2.07	2.07	2.07	2.07
Chippenham	02/03	GW	Western	2.66	2.66	2.05	2.05	2.05
Chipstead	99/00	STH	Sussex	2.22	2.22	2.22	2.22	2.22
Chirk		GW	Western	2.04	2.04	2.04	2.04	2.04
Chislehurst	03/04	STH	Kent	2.47	2.47	2.47	2.85	2.85
Chiswick	99/00	STH	Wessex	2.36	2.36	2.36	2.36	2.36
Cholsey	02/03	GW	Western	2.10	2.10	2.80	2.80	2.80
Chorley	01/02	NW	LNW	2.04	2.04	2.04	2.04	2.04
Christchurch	04/05	STH	Wessex	2.48	2.48	2.48	2.48	2.87
Christs Hospital	99/00	STH	Sussex	2.36	2.36	2.36	2.36	2.36
Church & Oswaldtwistle	03/04	NW	LNW	2.11	2.11	2.11	2.18	2.18
Church Fenton	02/03	LNE	LNE	1.90	1.90	1.98	1.98	1.98
Church Stretton	03/04	GW	Western	2.10	2.10	2.10	1.77	1.77
Cilmeri		GW	Western	2.00	2.00	2.00	2.00	2.00
City Thameslink	99/00	STH	Sussex	1.41	1.41	1.41	1.41	1.41
Clacton-On-Sea	04/05	EA	Anglia	2.62	2.62	2.62	2.69	2.26
Clandon	99/00	STH	Wessex	2.62	2.62	2.62	2.62	2.62
Clapham	01/02	NW	LNW	2.45	2.45	2.38	2.38	2.38
Clapham High Street	02/03	STH	Sussex	2.08	2.08	1.93	1.93	1.93
Clapham Junction	01/02	STH	Wessex	2.39	2.39	2.39	2.39	2.39
Clapton	02/03	EA	Anglia	2.20	2.20	2.41	2.41	2.41
Clarbeston Road		GW	Western	2.03	2.03	2.03	2.03	2.03
Clarkston	04/05	SCT	SCT	2.23	2.23	2.19	2.19	2.08
Claverdon		MID	LNW	2.90	2.90	2.90	2.90	2.90
Claygate	03/04	STH	Wessex	2.38	2.38	2.38	2.76	2.76
Cleethorpes	99/00	LNE	LNE	2.39	2.39	2.39	2.39	2.39
Cleland	01/02	SCT	SCT	2.28	2.28	2.28	2.28	2.28
Clifton	03/04	NW	LNW	3.39	3.39	3.39	2.16	2.16
Clifton Down	03/04	GW	Western	2.20	2.20	2.53	2.38	2.38
Clitheroe	03/04	NW	LNW	1.51	1.51	1.51	2.00	2.00
Clock House	02/03	STH	Kent	2.55	2.55	2.96	2.96	2.96
Clunderwen	02/00	GW	Western	1.78	1.78	1.78	1.78	1.78
Clydebank Central	03/04	SCT	SCT	2.11	2.11	2.15	2.20	2.20
Coatbridge Central	01/02	SCT	SCT	2.16	2.16	2.16	2.16	2.16
Coatbridge Sunnyside	03/04	SCT	SCT	1.80	2.89	2.24	2.33	2.33
Coatdyke	03/04	SCT	SCT	2.75	2.99	2.55	2.25	2.25
Cobham & Stoke D'Abernon	99/00	STH	Wessex	2.58	2.58	2.58	2.58	2.58
Codsall	02/03	MID	LNW	2.73	2.73	2.42	2.42	2.42
Cogan	3200	GW	Western	2.00	2.00	2.00	2.00	2.00
Colchester North	04/05	EA	Anglia	2.02	2.02	2.05	2.05	2.09
Colchester Town	04/05	EA	Anglia	2.82	2.82	2.82	2.91	2.28
Collingham	02/03	LNE	LNE	1.42	1.42	1.95	1.95	1.95
Collington	04/05	STH	Sussex	2.36	2.36	3.30	3.30	2.73
Colne	01/02	NW	LNW	2.11	2.11	2.11	2.11	2.11
Colwall Station	04/05	GW	Western	2.41	2.41	2.41	2.41	2.09
Colwyn Bay	02/03	NW	LNW	2.41	2.19	2.41	2.41	2.09
Combe	02/03	GW	Western	2.19	2.17	2.37	2.20	2.20
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table L	ist of stations and their grad	of stations and their grades						
	inclusion			Scores	Scores	Scores	Scores	Score
Commondale	03/04	LNE	LNE	2.28	2.28	2.28	2.45	2.45
Congleton	02/03	NW	LNW	2.16	2.16	2.11	2.11	2.11
Conisbrough	02/03	LNE	LNE	1.55	1.55	1.80	1.80	1.80
Connel Ferry	04/05	SCT	SCT	2.43	2.43	2.43	2.43	1.18
Cononley	02/03	LNE	LNE	2.30	2.30	2.33	2.33	2.33
Conway Park	04/05	NW	LNW	1.08	1.08	1.08	1.08	1.15
Conwy	02/03	NW	LNW	2.02	2.02	2.17	2.17	2.17
Cooden Beach	01/02	STH	Sussex	2.37	2.37	2.37	2.37	2.37
Cookham		GW	Western	1.50	1.50	1.50	1.50	1.50
Cooksbridge	02/03	STH	Sussex	2.52	2.52	2.84	2.84	2.84
Coombe Halt	03/04	GW	Western	2.17	2.17	2.17	1.78	1.78
Copplestone	03/04	GW	Western	2.70	2.70	2.70	2.12	2.12
Corbridge	03/04	LNE	LNE	2.25	2.25	2.25	2.10	2.10
Corkerhill	04/05	SCT	SCT	2.32	2.30	2.25	2.25	1.50
Corkickle	01/02	NW	LNW	2.86	2.86	2.86	2.86	2.86
Corpach	01/02	SCT	SCT	2.07	2.07	2.07	2.07	2.07
Corrour	04/05	SCT	SCT	2.95	2.95	2.95	2.95	1.50
Coryton	0 1/05	GW	Western	2.21	2.21	2.21	2.21	2.21
Coseley	01/02	MID	LNW	1.32	1.32	1.32	1.32	1.32
Cosford	04/05	MID	LNW	2.63	2.63	2.63	2.63	2.87
Cosham	99/00	STH	Wessex	2.42	2.63	2.63	2.63	2.42
	02/03	LNE	LNE	2.42	2.42	2.45	2.45	2.45
Cottingham	03/04	LNE	LNE	3.10	3.10	3.10	2.43	2.43
Cottingley	03/04	STH			2.53			
Coulsdon South			Sussex	2.53		2.53	2.53	2.53
Coventry	01/02	MID	LNW	1.65	1.65	1.65	1.65	1.65
Cowden	03/04	STH	Sussex	2.55	2.55	2.55	3.23	3.23
Cowdenbeath	04/05	SCT	SCT	2.12	2.12	2.2	2.21	1.67
Cradley Heath	03/04	MID	LNW	1.57	1.57	1.58	1.75	1.75
Craigendoran	04/05	SCT	SCT	2.04	2.04	2.00	2.00	1.81
Cramlington	99/00	LNE	LNE	2.29	2.29	2.29	2.29	2.29
Craven Arms		GW	Western	2.00	2.00	2.00	2.00	2.00
Crawley	04/05	STH	Sussex	2.49	2.49	2.49	2.49	2.68
Crayford	01/02	STH	Kent	1.38	1.38	1.38	1.38	1.38
Crediton	03/04	GW	Western	2.47	2.47	2.47	2.36	2.36
Cressing	04/05	EA	Anglia	3.16	3.16	3.16	2.48	2.53
Cressington	02/03	NW	LNW	2.19	2.19	2.18	2.18	2.18
Creswell	02/03	LNE	LNE	0.00		1.88	1.88	1.88
Crewe	04/05	NW	LNW	2.18	2.18	2.18	2.18	2.82
Crewekerne Station		STH	Wessex	2.69	2.69	2.76	2.70	2.70
Crews Hill	99/00	LNE	LNE	2.04	2.04	2.04	2.04	2.04
Crianlarich	04/05	SCT	SCT	2.11	2.11	1.67	1.67	1.70
Criccieth	03/04	GW	Western	1.82	1.82	1.82	2.34	2.34
Cricklewood	03/04	MID	LNE	2.00	2.00	2.00	2.03	2.03
Croftfoot	02/03	SCT	SCT	2.19	2.19	2.18	2.18	2.18
Crofton Park	03/04	STH	Kent	2.30	2.30	2.30	2.92	2.92
Cromer	03/04	EA	Anglia	2.48	2.48	2.48	1.63	1.63
Cromford	00/01	MID	LNE	2.92	2.92	2.92	2.92	2.92
Crookston	04/05	SCT	SCT	2.00	2.00	2.25	2.25	1.13
Crossflatts		LNE	LNE	1.90	1.90	1.90	1.90	1.90
Crossgates	02/03	LNE	LNE	1.50	1.50	3.13	3.13	3.13
Crosshill	02/03	SCT	SCT	2.15	2.15	2.07	2.07	2.07
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table	List of stations and their g	tations and their grades						
	inclusion	,		Scores	Scores	Scores	Scores	Scores
Crossmyloof	01/02	SCT	SCT	2.39	2.39	2.39	2.39	2.39
Croston	01/02	NW	LNW	2.41	2.41	2.41	2.41	2.41
Crouch Hill	02/03	EA	Anglia			1.79	1.79	1.79
Crowborough	03/04	STH	Sussex	2.35	2.35	2.35	3.10	3.10
Crowhurst	02/03	STH	Kent	2.45	2.45	2.68	2.68	2.68
Crowle	99/00	LNE	LNE	1.99	1.99	1.99	1.99	1.99
Crowthorne	01/02	STH	Wessex	2.62	2.62	2.62	2.62	2.62
Croy	04/05	SCT	SCT	1.35	1.35	1.4	1.40	1.35
Crystal Palace	02/03	STH	Sussex	2.48	2.48	2.48	2.48	2.48
Cuddington	03/04	NW	LNW	2.78	2.78	2.78	2.50	2.50
Cuffley	99/00	LNE	LNE	2.02	2.02	2.02	2.02	2.02
Culham	03/04	GW	Western	2.70	2.70	2.70	2.28	2.28
Culrain	01/02	SCT	SCT	2.26	2.26	2.26	2.26	2.26
Cumbernauld	01/02	SCT	SCT	2.20	2.20	2.20	2.20	2.20
Cupar	04/05	SCT	SCT	2.05	2.05	2.05	2.05	1.53
Curriehill	02/03	SCT	SCT	2.01	2.01	2.0	2.02	2.02
Custom House		EA	Anglia	2.30	2.30	2.30	2.30	2.30
Cuxton	02/03	STH	Kent	2.68	2.68	3.00	3.00	3.00
Cwmbach		GW	Western	3.17	3.17	3.17	3.17	3.17
Cwmbran		GW	Western	2.65	2.65	2.65	2.65	2.65
Cynghordy		GW	Western	2.00	2.00	2.00	2.00	2.00
Dagenham Dock	•	EA	Anglia	2.00	2.00	2.00	2.00	2.00
Daisy Hill	01/02	NW	LNW	2.61	2.61	2.61	2.61	2.61
Dalgety Bay Halt		SCT	SCT	1.01	1.01	1.2	1.18	1.07
Dalmally	04/05	SCT	SCT	2.42	2.42	2.42	2.42	1.13
Dalmarnock	02/03	SCT	SCT	2.16	2.16	2.25	2.25	2.25
Dalmeny	04/05	SCT	SCT	2.34	2.34	2.4	2.37	1.48
Dalmuir Park	03/04	SCT	SCT	2.23	2.23	2.10	2.14	2.14
Dalreoch	04/05	SCT	SCT	2.10	2.10	2.14	2.14	1.96
Dalry	03/04	SCT	SCT	2.10	2.10	2.10	2.07	2.07
Dalston	04/05	NW	LNW	0.00				2.02
Dalston Kingsland		EA	Anglia	2.07	2.07	2.07	2.15	2.01
Dalton-in-Furnes		NW	LNW	2.23	2.23	2.23	2.23	2.23
Dalwhinnie	01/02	SCT	SCT	2.36	2.36	2.36	2.36	2.36
Danby	02/03	LNE	LNE	2.50	2.50	2.50	2.48	2.48
Danescourt Statio		GW	Western	3.19	2.27	2.20	2.20	2.25
Danzey	04/05	MID	LNW	1.86	1.86	1.86	1.86	2.65
Darlington [Bank		LNE	LNE	2.34	2.34	2.34	2.34	2.34
Darnall	99/00	LNE	LNE	2.24	2.24	2.24	2.24	2.24
Darsham	04/05	EA	Anglia	2.15	2.15	2.24	2.24	2.17
Dartford	04/05	STH	Kent	2.59	2.59	2.59	2.59	2.51
Darton	0 1/ 00	LNE	LNE	1.70	1.70	1.70	1.70	1.70
Darwen	01/02	NW	LNW	2.28	2.28	2.28	2.28	2.28
Datchet	03/04	STH	Wessex	2.24	2.24	2.11	2.23	2.23
Davenport	01/02	NW	LNW	2.19	2.19	2.19	2.19	2.19
Dawlish	01/02	GW	Western	2.45	2.45	2.45	2.45	2.45
Dawlish Warren	01/02	GW	Western	2.07	2.07	2.07	2.07	2.07
Deal	01/02	STH	Kent	2.73	2.73	2.73	2.73	2.73
Dean	04/05	STH	Wessex	2.33	2.33	2.33	2.33	2.86
Dean Lane	99/00	NW	LNW	2.88	2.88	2.88	2.88	2.88
Deansgate Deansgate	04/05	NW	LNW	2.10	2.10	2.10	2.10	2.21
Station Name	Year of	Zone	Route	2.10	01/02	02/03	03/04	04/05

Table List of stat	ations and their grades							
	inclusion			Scores	Scores	Scores	Scores	Scores
Deganwy	02/03	NW	LNW	2.09	2.09	2.13	2.13	2.13
Deighton	01/02	LNE	LNE	2.71	2.71	2.71	2.71	2.71
Delamere	03/04	NW	LNW	1.82	1.82	1.82	2.24	2.24
Denby Dale	99/00	LNE	LNE	2.22	2.22	2.22	2.22	2.22
Denham	02/03	MID	LNW	2.24	2.24	2.21	2.21	2.21
Denham Golf Club	00/01	MID	LNW	2.33	2.33	2.33	2.33	2.33
Denmark Hill	03/04	STH	Kent	2.46	2.46	2.46	2.83	2.83
Dent	99/00	NW	LNW	2.27	2.27	2.27	2.27	2.27
Denton	01/02	NW	LNW	3.06	3.06	3.06	3.06	3.06
Deptford	03/04	STH	Kent	2.42	2.42	2.42	2.54	2.54
Derby	02/03	MID	LNE	1.41	1.41	1.61	1.61	1.61
Derby Road (Ipswich)	01/02	EA	Anglia	1.93	1.93	1.93	1.93	1.93
Derker	01/02	NW	LNW	2.49	2.49	2.49	2.49	2.49
Devonport	01/02	GW	Western	2.96	2.96	2.96	2.55	2.55
Dewsbury		LNE	LNE	3.00	3.00	3.00	3.00	3.00
Didcot Parkway	02/03	GW	Western	1.80	1.80	2.21	2.21	2.21
Digby & Sowton	04/05	GW	Western	2.20	2.20	2.20	2.20	2.43
Dilton Marsh	0 1/ 03	GW	Western	1.45	1.45	1.45	1.45	1.45
Dinas [Mid-Glamorgan]		GW	Western	3.00	3.00	3.00	3.00	3.00
Dinas Powys		GW	Western	2.04	2.04	2.04	2.04	2.04
Dingle Road		GW	Western	1.81	1.81	1.81	1.81	1.81
Dingwall	01/02	SCT	SCT	2.10	2.10	2.10	2.10	2.10
Dinsdale	99/00	LNE	LNE	2.84	2.84	2.84	2.84	2.84
	04/05	NW	LNW	2.10	2.10	2.10	2.10	2.36
Dinting	04/03		LNW	2.02		2.10		
Disley		NW			2.02		2.03	2.03
Diss	03/04	EA C)A/	Anglia	2.68	2.68	2.68	2.75	2.75
Dockyard	01/02	GW	Western	2.76	2.76	2.76	2.19	2.19
Dodworth		LNE	LNE	1.80	1.80	1.80	1.80	1.80
Dolau	00/00	GW	Western	2.00	2.00	2.00	2.00	2.00
Doleham	99/00	STH	Kent	2.37	2.37	2.37	2.37	2.37
Dolgarrog	01/02	NW	LNW	2.23	2.23	2.23	2.23	2.23
Dolwyddelan	02/03	NW	LNW	2.28	2.28	2.40	2.40	2.40
Doncaster	03/04	LNE	LNE	1.88	1.88	1.88	1.73	1.73
Dorchester South	03/04	STH	Wessex	2.35	2.35	2.88	2.45	2.45
Dorchester West	99/00	STH	Wessex	2.68	2.68	2.68	2.68	2.68
Dore	99/00	LNE	LNE	2.00	2.00	2.00	2.00	2.00
Dorking	02/03	STH	Sussex	2.53	2.53	2.58	2.58	2.58
Dorking Deepdene	01/02	STH	Wessex	2.79	2.79	2.79	2.79	2.79
Dorking West	01/02	STH	Wessex	2.71	2.71	2.71	2.71	2.71
Dormans	99/00	STH	Sussex	2.62	2.62	2.62	2.62	2.62
Dorridge	01/02	MID	LNW	2.36	2.36	2.36	2.36	2.36
Dove Holes	01/02	NW	LNW	3.02	3.02	3.02	3.02	3.02
Dover Priory	04/05	STH	Kent	2.48	2.48	2.48	2.48	2.25
Dovercourt	04/05	EA	Anglia	2.78	2.78	2.78	2.86	2.84
Dovey Junction	03/04	GW	Western	2.50	2.50	2.50	1.54	1.54
Downham Market	01/02	EA	Anglia	2.00	2.00	2.00	2.00	2.00
Drayton Green	04/05	GW	Western	2.11	2.11	2.11	2.11	2.51
Drayton Park	99/00	LNE	LNE	2.08	2.08	2.08	2.08	2.08
Drem	04/05	SCT	SCT	2.11	2.11	2.2	2.20	1.36
Driffield	02/03	LNE	LNE	2.20	2.20	2.54	2.54	2.54
Drigg	01/02	NW	LNW	3.26	3.26	3.26	3.26	3.26
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of stations								
	inclusion			Scores	Scores	Scores	Scores	Scores
Droitwich Spa		GW	Western	2.10	2.10	2.10	2.10	2.10
Dronfield	99/00	LNE	LNE	2.30	2.30	2.30	2.30	2.30
Drumchapel	03/04	SCT	SCT	2.18	2.18	2.06	2.06	2.06
Drumfrochar	01/02	SCT	SCT	1.20	1.20	1.20	1.20	1.20
Drumgelloch	03/04	SCT	SCT	2.26	2.26	2.35	2.34	2.34
Drumry	03/04	SCT	SCT	2.20	2.20	2.12	2.05	2.05
Duddeston	01/02	MID	LNW	1.77	1.77	1.77	1.77	1.77
Dudley Port	01/02	MID	LNW	1.75	1.75	1.75	1.75	1.75
Duffield	02/03	MID	LNE	2.01	2.01	2.12	2.12	2.12
Duirinish	01/02	SCT	SCT	2.30	2.30	2.30	2.30	2.30
Duke Street	03/04	SCT	SCT	2.17	2.17	2.17	2.17	2.17
Dullingham	03/04	EA	Anglia	2.24	2.24	2.24	2.40	2.40
Dumbarton Central	03/04	SCT	SCT	2.37	2.37	2.53	2.58	2.58
Dumbarton East	03/04	SCT	SCT	3.37	2.66	2.01	2.22	2.22
Dumbreck	04/05	SCT	SCT	2.06	2.06	2.01	2.01	1.30
Dumfries	03/04	SCT	SCT	2.00	2.00	2.18	2.20	2.20
Dumpton Park	04/05	STH	Kent	2.23	2.23	2.23	2.23	2.34
Dunbar	04/05	SCT	SCT	1.86	1.86	1.86	1.86	1.04
Dunblane	02/03	SCT	SCT	2.33	2.33	2.3	2.34	2.34
Dunbridge Station	03/04	STH	Wessex	2.03	2.03	2.03	2.15	2.15
 Duncraig	01/02	SCT	SCT	2.19	2.19	2.19	2.19	2.19
Dundee Tay Bridge	02/03	SCT	SCT	2.46	2.46	2.5	2.47	2.47
Dunfermline	04/05	SCT	SCT	2.08	2.08	2.1	2.12	1.46
Dunfermline Queen Margaret	04/05	SCT	SCT	1.13	1.13	1.1	1.14	1.00
Dunkeld & Birnam	02/03	SCT	SCT	2.41	2.41	2.3	2.31	2.31
Dunlop	03/04	SCT	SCT	2.18	2.18	2.18	2.03	2.03
Dunrobin	01/02	SCT	SCT	2.47	2.47	2.47	2.47	2.47
Dunston	02/03	LNE	LNE	2.21	2.21	2.48	2.48	2.48
Dunton Green	04/05	STH	Kent	2.80	2.80	2.80	2.80	3.05
Durham	03/04	LNE	LNE	2.37	2.37	2.37	2.39	2.39
Durrington-on-Sea	01/02	STH	Sussex	2.48	2.48	2.48	2.48	2.48
Dyce	02/03	SCT	SCT	1.95	1.95	1.8	1.83	1.83
Dyffryn Ardudwy	03/04	GW	Western	1.40	1.40	1.40	2.01	2.01
Eaglescliffe	99/00	LNE	LNE	2.49	2.49	2.49	2.49	2.49
Ealing Broadway	01/02	GW	Western	2.39	2.39	2.39	2.39	2.39
Earley	98/99	STH	Wessex	2.29	2.29	2.34	2.34	2.34
Earlsfield	98/99	STH	Wessex	2.41	2.41	2.41	2.41	2.41
Earlstown	04/05	NW	LNW	2.98	2.98	2.98	2.98	2.22
Earlswood	04/05	MID	LNW	2.35	2.35	2.35	2.35	2.65
Earlswood	01/03	STH	Sussex	2.71	2.71	2.71	2.71	2.71
East Boldon	99/00	LNE	LNE	2.16	2.16	2.16	2.16	2.16
East Croydon	99/00	STH	Sussex	1.98	1.98	1.98	1.98	1.98
East Didsbury	01/02	NW	LNW	3.12	3.12	3.12	3.12	3.12
East Didsbury  East Dulwich	03/04	STH		2.11	2.11	2.11	2.28	2.28
	03/04	STH	Sussex					3.05
East Farleigh East Garforth	03/04	LNE	Kent LNE	2.46 1.50	2.46 1.50	2.46 1.31	3.05	1.31
East Grinstead	99/00	STH		2.51	2.51		2.51	2.51
	04/05		Sussex	2.15		2.51		1.94
East Kilbride		SCT	SCT		2.15	2.18	2.18	
East Malling	04/05	STH	Kent	2.50	2.50	2.53	2.53	2.44
East Tilbury	03/04	EA	Anglia	1.34	1.34	1.34	1.28	1.28
East Worthing	01/02	STH	Sussex	2.84	2.84	2.84	2.84	2.84
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of stat	ions and their gra	ns and their grades						
	inclusion			Scores	Scores	Scores	Scores	Scores
Eastbourne	99/00	STH	Sussex	1.95	1.95	1.95	1.95	1.95
Eastbrook		GW	Western	2.16	2.16	2.16	2.16	2.16
Easterhouse	03/04	SCT	SCT	2.89	2.82	2.30	2.22	2.22
Eastham Rake	03/04	NW	LNW	1.17	1.17	1.33	1.41	1.41
Eastleigh	99/00	STH	Wessex	2.48	2.48	2.48	2.48	2.48
Eastrington	02/03	LNE	LNE	2.40	2.40	2.42	2.42	2.42
Eccles	02/03	NW	LNW	2.90	2.90	2.10	2.10	2.10
Eccles Road	03/04	EA	Anglia	2.64	2.64	2.64	2.46	2.46
Eccleston Park	02/03	NW	LNW	2.20	2.20	2.08	2.08	2.08
Edale	03/04	NW	LNW	2.68	2.68	2.68	2.01	2.01
Eden Park	04/05	STH	Kent	2.43	2.43	2.43	2.43	2.86
Edenbridge	04/05	STH	Kent	2.75	2.75	2.87	2.87	2.87
Edenbridge Town	03/04	STH	Sussex	2.45	2.45	2.45	3.13	3.13
Edge Hill	03/04	NW	LNW	2.48	2.48	2.48	2.02	2.02
Edinburgh Haymarket	02/03	SCT	SCT	2.31	2.31	2.5	2.46	2.46
Edinburgh Waverley	04/05	MJS	Managed Stations	2.20	2.20	2.09	2.05	2.05
Edmonton Green	02/03	EA	Anglia	2.10	2.10	2.19	2.19	2.19
Effingham Junction	99/00	STH	Wessex	2.70	2.70	2.70	2.70	2.70
Eggesford	03/04	GW	Western	2.40	2.40	2.40	2.30	2.30
Egham	02/03	STH	Wessex	2.14	2.14	2.33	2.33	2.33
Egton	03/04	LNE	LNE	2.48	2.48	2.48	2.31	2.31
Elephant & Castle	04/05	STH	Sussex	2.02	2.02	2.02	2.02	2.16
Elgin	01/02	SCT	SCT	2.08	2.08	2.08	2.08	2.08
Ellesmere Port	03/04	NW	LNW	2.03	2.03	2.03	2.00	2.00
Elmers End	01/02	STH	Kent	2.63	2.63	2.63	2.63	2.63
Elmstead Woods	03/04	STH	Kent	2.55	2.55	2.55	2.82	2.82
Elmswell	03/04	EA	Anglia	1.96	1.96	1.96	2.10	2.10
Elsecar	03/04	LNE	LNE	2.30	2.30	2.30	2.24	2.24
Elsenham	01/02	EA	Anglia	1.94	1.94	1.94	1.94	1.94
Elstree & Borehamwood	99/00	MID	LNE	2.05	2.05	2.05	2.05	2.05
Eltham	98/99	STH	Kent	2.40	2.40	2.40	2.40	2.40
Elton & Orston	99/00	MID	LNE	1.65	1.65	1.65	1.65	1.65
Ely	03/04	EA	Anglia	2.79	2.79	2.85	2.42	2.42
Emerson Park	03/01	EA	Anglia	1.82	1.82	1.82	1.82	1.82
Emsworth	02/03	STH	Sussex	2.53	2.53	2.86	2.86	2.86
Enfield Chase	99/00	LNE	LNE	1.99	1.99	1.99	1.99	1.99
Enfield Lock	77100	EA	Anglia	2.10	2.10	2.10	2.10	2.10
Enfield Town	01/02	EA	Anglia	2.07	2.07	2.07	2.07	2.07
Entwhistle	01/02	NW	LNW	2.05	2.05	2.05	2.05	2.05
Epsom	03/04	STH	Sussex	2.52	2.52	2.52	2.84	2.84
Epsom Downs	99/00	STH	Sussex	2.20	2.20	2.20	2.20	2.20
Erdington Erdington	02/03	MID	LNW	1.74	1.74	1.26	1.26	1.26
Eridge Station	03/04	STH	Sussex	2.71	2.71	2.71	3.46	3.46
Erith	03/04	STH	Kent	2.44	2.44	2.44	2.44	2.46
Esher	04/05	STH	Wessex	2.13	2.13	2.13	2.13	2.30
Essex Road	99/00	LNE	LNE	2.13	2.13	2.13	2.13	2.26
Etchingham Etchingham	04/05	STH	Kent	2.73	2.73	2.20	2.20	2.65
Etruria	04/05	NW	LNW	2.73	2.73	2.44	2.44	2.26
Euxton Balshaw Lane	04/03	NW	LNW	0.00	Z.TT	1.89	1.89	1.89
	02/03	GW		2.07	2.07	2.07		2.31
Evesham  Fixed Fact	03/04		Western				2.31	
Ewell East		STH	Sussex	2.56	2.56	2.56	2.56	2.26
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of sta	ations and their grad	des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Ewell West	98/99	STH	Wessex	2.44	2.44	2.44	2.44	2.44
Exeter Central	04/05	GW	Western					2.03
Exeter St Davids	02/03	GW	Western	2.51	2.51	2.10	2.10	2.10
Exeter St Thomas	01/02	GW	Western	2.39	2.39	2.39	2.39	2.39
Exmouth Station	04/05	GW	Western	2.30	2.30	2.30	2.29	2.19
Exton	04/05	GW	Western	3.20	3.20	3.20	3.20	1.89
Eynsford	04/05	STH	Kent	1.97	1.97	1.97	1.97	2.38
Failsworth	99/00	NW	LNW	2.78	2.78	2.78	2.78	2.78
Fairbourne	03/04	GW	Western	1.42	1.42	1.42	1.73	1.73
Fairfield	03/04	NW	LNW	2.11	2.11	2.11	2.14	2.14
Fairlie	03/04	SCT	SCT	2.16	2.16	2.16	2.05	2.05
Fairwater Station	04/05	GW	Western	2.36	2.36	2.36	2.36	2.49
Falconwood	04/05	STH	Kent	2.48	2.48	2.48	2.48	2.65
Falkirk Grahamston	02/03	SCT	SCT	2.80	2.77	2.9	2.86	2.86
Falkirk High	04/05	SCT	SCT	2.18	2.18	2.2	2.21	1.64
Falls Of Cruachan	04/05	SCT	SCT	2.46	2.46	2.46	2.46	1.08
Falmer	04/05	STH	Sussex	2.48	2.48	2.48	2.48	2.68
Falmouth Docks	0 1/ 00	GW	Western	2.50	2.50	2.50	2.50	2.50
Falmouth Town	03/04	GW	Western	2.00	2.00	2.00	1.92	1.92
Fambridge	03/01	EA	Anglia	1.64	1.64	1.64	1.64	1.64
Fareham	99/00	STH	Wessex	2.02	2.02	2.02	2.02	2.02
Farnborough	04/05	STH	Wessex	2.52	2.52	2.52	2.52	2.72
Famborough North	01/02	STH	Wessex	2.96	2.96	2.96	2.96	2.96
Famcombe	99/00	STH	Wessex	2.58	2.58	2.58	2.58	2.58
Farnham	01/02	STH	Wessex	2.24	2.24	2.24	2.24	2.24
Farningham Road	99/00	STH	Kent	2.60	2.60	2.60	2.60	2.60
Farnworth	03/04	NW	LNW	2.10	2.10	2.10	2.25	2.25
	00/01	MID	LNE	2.00	2.00	2.00	2.00	2.00
Farringdon Fauldhouse	02/03	SCT	SCT	2.52	2.52	2.5	2.49	2.49
Faversham	04/05	STH	Kent	2.32	2.30	2.30	2.30	2.26
	01/02	STH		2.63	2.63	2.63	2.63	2.63
Faygate	01/02	NW	Sussex LNW	1.85	1.85	1.85	1.85	1.85
Fazakerley	01/02	SCT	SCT	2.33	2.33	2.33	2.33	2.33
Fearn								
Featherstone	03/04	LNE	LNE	2.15	2.15	2.15	2.36	2.36
Felixstowe	01/02	EA	Anglia	2.05	2.05	2.15	2.15	2.15
Feltham	03/04	STH	Wessex	2.26	2.26	1.93	1.93	1.93
Fenchurch Street	04/05	MJS	Managed Stations	0.00	2.40	2.25	2.39	2.17
Feniton	04/05	STH	Wessex	2.69	2.69	2.69	2.69	2.33
Fenny Stratford	00/01	MID	LNE	1.83	1.83	1.83	1.83	1.83
Fernhill	02/04	GW	Western	2.87	2.87	2.87	2.87	2.87
Ferriby	03/04	LNE	LNE	2.39	2.39	2.39	2.49	2.49
Ferryside	02/04	GW CVA	Western	1.70	1.70	1.70	1.70	1.70
Ffairfach	03/04	GW	Western	2.00	2.00	2.00	2.30	2.30
Filey	01/02	LNE	LNE	2.43	2.43	2.43	2.43	2.43
Filton Abbey Wood	03/04	GW	Western	1.80	1.80	1.80	1.90	1.90
Finchley Road and Frognal	00/01	EA	Anglia	2.18	2.18	2.18	2.18	2.18
Finnieston Exhibition Centr		SCT	SCT	2.16	2.16	2.18	2.18	2.18
Finsbury Park	99/00	LNE	LNE	2.17	2.17	2.17	2.17	2.17
Finstock	03/04	GW	Western	2.33	2.33	2.33	2.24	2.24
Fishbourne	99/00	STH	Sussex	2.56	2.56	2.56	2.56	2.56
Fishergate	04/05	STH	Sussex	2.54	2.54	2.54	2.54	2.35
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

 Table List of s	stations and their grad	des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Fishguard Harbour		GW	Western	2.15	2.15	2.15	2.15	2.15
Fiskerton	00/01	MID	LNE	1.00	1.00	1.00	1.00	1.00
Fitzwilliam		LNE	LNE	2.30	2.30	2.30	2.30	2.30
Five Ways	01/02	MID	LNW	1.60	1.60	1.60	1.60	1.60
Fleet	01/02	STH	Wessex	2.45	2.45	2.45	2.45	2.45
Flimby	02/03	NW	LNW	2.39	2.39	2.14	2.14	2.14
Flint	01/02	NW	LNW	2.96	2.96	2.96	2.96	2.96
Flitwick	03/04	MID	LNE	2.07	2.07	2.07	2.09	2.09
Flixton	03/04	NW	LNW	2.14	2.14	2.14	2.01	2.01
Flowery Field	01/02	NW	LNW	2.00	2.00	2.00	2.00	2.00
Folkestone Central	99/00	STH	Kent	2.28	2.28	2.28	2.28	2.28
Folkestone Harbour	03/04	STH	Kent	3.00	3.00	3.00	3.26	3.26
Folkestone West	00/01	STH	Kent	2.41	2.41	2.41	2.41	2.41
Ford	02/03	STH	Sussex	2.50	2.50	2.65	2.65	2.65
Forest Gate	03/04	EA	Anglia	1.90	1.90	1.90	2.31	2.31
Forest Hill	02/03	STH	Sussex	2.04	2.04	2.30	2.30	2.30
Formby	02/03	NW	LNW	2.17	2.17	2.15	2.15	2.15
Forres	02/03	SCT	SCT	2.27	2.27	2.5	2.49	2.49
Forsinard	01/02	SCT	SCT	2.76	2.76	2.76	2.76	2.76
Fort Matilda	01/02	SCT	SCT	2.28	2.28	2.28	2.28	2.28
Fort William	04/05	SCT	SCT	2.25	2.25	2.25	2.25	1.99
Four Oaks	02/03	MID	LNW	1.96	1.96	1.93	1.93	1.93
Foxfield	02/03	NW	LNW	3.10	3.10	1.92	1.92	1.92
Foxton	03/04	EA	Anglia	3.15	3.15	3.13	2.38	2.38
Frant	01/02	STH	Kent	2.58	2.58	2.58	2.58	2.58
Fratton	99/00	STH	Wessex	2.50	2.50	2.50	2.50	2.50
Freshfield	03/04	NW	LNW	1.99	1.99	1.99	2.10	2.10
Freshford	33.01	GW	Western	2.36	2.36	2.36	2.36	2.36
Frimley	01/02	STH	Wessex	2.43	2.43	2.43	2.43	2.43
Frinton On Sea	03/04	EA	Anglia	2.73	2.73	2.73	2.71	2.71
Frizinghall	33.01	LNE	LNE	2.10	2.10	2.10	2.10	2.10
Frodsham	03/04	NW	LNW	3.80	3.80	2.00	2.04	2.04
Frome	03/01	GW	Western	2.25	2.25	2.25	2.25	2.25
Fulwell	99/00	STH	Wessex	2.56	2.56	2.56	2.56	2.56
Furness Vale	01/02	NW	LNW	2.92	2.92	2.92	2.92	2.92
Furze Platt	01702	GW	Western	2.10	2.10	2.10	2.10	2.10
Gainsborough Central	99/00	LNE	LNE	3.43	3.43	3.43	3.43	3.43
Gainsborough Lea Road	00/01	LNE	LNE	1.86	1.86	1.86	1.86	1.86
Garelochhead	04/05	SCT	SCT	2.42	2.42	2.42	2.42	1.80
Garforth	03/04	LNE	LNE	1.50	1.50	1.50	2.36	2.36
Gargrave	03/04	LNE	LNE	1.30	1.30	1.30	1.95	1.95
Garrowhill	03/04	SCT	SCT	2.98	2.98	2.98	2.18	2.18
Garscadden	03/04	SCT	SCT	2.16	2.16	2.17	2.22	2.22
Garsdale	01/02	NW	LNW	2.78	2.78	2.78	2.78	2.78
Garston [Herts.]	00/01	MID	LNW	1.50	1.50	1.50	1.50	1.50
Garston [Merseyside]	02/03	NW	LNW	2.20	2.20	2.04	2.04	2.04
Garswood	04/05	NW	LNW	3.35	3.35	3.35	3.35	2.03
Garth	0 1/ 03	GW	Western	2.00	2.00	2.00	2.00	2.00
Garth [Mid-Glamorgan]		GW	Western	2.29	2.29	2.29	2.29	2.29
Garve Garnorgan	01/02	SCT	SCT	2.23	2.27	2.27	2.27	2.27
Gathurst	99/00	NW	LNW	2.16	2.16	2.16	2.16	2.16
	Year of			00/01	01/02	02/03	03/04	04/05
Station Name	i ear of	Zone	Route	00/01	01/02	02/03	03/04	U <del>1</del> /U3

Table List of statio	ns and their gra	.des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Gatley	01/02	NW	LNW	3.12	3.12	3.12	3.12	3.12
Gatwick Airport	04/05	MJS	Managed Stations	2.00	2.00	2.57	2.53	2.48
Georgemas Junction	01/02	SCT	SCT	2.17	2.17	2.17	2.17	2.17
Gerrards Cross	00/01	MID	LNW	2.25	2.25	2.25	2.25	2.25
Gidea Park	01/02	EA	Anglia	1.93	1.93	1.93	1.93	1.93
Giffnock	04/05	SCT	SCT	1.79	2.74	2.16	2.16	2.17
Giggleswick	01/02	NW	LNW	2.03	2.03	2.06	2.06	2.06
Gilberdyke	02/03	LNE	LNE	2.35	2.35	2.37	2.37	2.37
Gilfach Fargoed Station	04/05	GW	Western	2.28	2.28	2.74	2.74	2.94
Gillingham	01/02	STH	Kent	2.54	2.54	2.54	2.54	2.54
Gillingham	03/04	STH	Wessex	2.43	2.43	2.43	2.09	2.09
Gilshochill	04/05	SCT	SCT	2.22	2.22	2.06	2.06	2.00
Gipsy Hill	02/03	STH	Sussex	2.05	2.05	2.62	2.62	2.62
Girvan	03/04	SCT	SCT	2.29	2.29	2.29	2.27	2.27
Glaisdale	02/03	LNE	LNE	2.40	2.40	2.56	2.56	2.56
Glan Conwy	02/03	NW	LNW	2.30	2.30	2.13	2.13	2.13
Glasgow Central	04/05	MJS	Managed Stations	2.83	2.83	2.12	2.12	2.12
Glasgow Central Low Level	02/03	SCT	SCT	2.25	2.25	2.29	2.29	2.29
Glazebrook	03/04	NW	LNW	2.01	2.01	2.01	2.07	2.07
Gleneagles	01/02	SCT	SCT	2.84	2.84	2.84	2.84	2.84
Glenfinnan	01/02	SCT	SCT	2.08	2.08	2.08	2.08	2.08
Glengarnock	03/04	SCT	SCT	2.10	2.10	2.10	2.13	2.13
Glenrothes & Thornton	04/05	SCT	SCT	2.30	2.30	2.4	2.44	1.26
Glossop	04/05	NW	LNW	2.97	2.97	2.97	2.97	2.52
Gloucester		GW	Western	2.20	2.20	2.20	2.20	2.20
Glynde	02/03	STH	Sussex	3.44	3.44	3.45	3.45	3.45
Gobowen		GW	Western	1.98	1.98	1.98	1.98	1.98
Godalming	99/00	STH	Wessex	2.49	2.49	2.49	2.49	2.49
Godley	01/02	NW	LNW	2.17	2.17	2.17	2.17	2.17
Godstone	02/03	STH	Kent	2.73	2.73	3.28	3.28	3.28
Goldthorpe	01/02	LNE	LNE	2.25	2.25	2.25	2.25	2.25
Golspie	01/02	SCT	SCT	2.18	2.18	2.18	2.18	2.18
Gomshall Station	03/04	STH	Wessex	3.21	3.21	2.78	2.76	2.76
Goodmayes	03/04	EA	Anglia	1.76	1.76	1.76	2.26	2.26
Goole	01/02	LNE	LNE	2.12	2.12	2.12	2.12	2.12
Goostrey	02/03	NW	LNW	2.10	2.10	2.14	2.14	2.14
Gordon Hill	00/01	LNE	LNE	2.04	2.04	2.04	2.04	2.04
Goring and Streatley	02/03	GW	Western	2.30	2.30	2.67	2.67	2.67
Goring-by-Sea	99/00	STH	Sussex	2.52	2.52	2.52	2.52	2.52
Gorton	03/04	NW	LNW	2.33	2.33	2.33	2.13	2.13
Gospel Oak	01/02	EA	Anglia	2.05	2.05	2.05	2.05	2.05
Gourock	01/02	SCT	SCT	2.60	2.60	2.60	2.60	2.60
Gowerton	01102	GW	Western	2.00	2.00	2.00	2.00	2.00
Goxhill	03/04	LNE	LNE	2.22	2.22	2.22	2.14	2.14
Grange Park	99/00	LNE	LNE	2.22	2.22	2.22	2.22	2.22
Grange-over-Sands	01/02	NW	LNW	3.00	3.00	3.00	3.00	3.00
Grangetown	01/02	GW	Western	2.10	2.10	2.10	2.10	2.10
Grantham	02/03	LNE	LNE	2.19	2.19	2.23	2.23	2.23
Grateley	03/04	STH	Wessex	2.17	2.17	2.32	2.60	2.60
Gravelly Hill	03/04	MID	LNW	1.96	1.96	1.96	1.96	1.96
<u> </u>	99/00	STH	Kent	2.35	2.35		2.35	2.35
Gravesend Station Name						2.35		
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of stations	and their gra	des						
	inclusion			Scores	Scores	Scores	Scores	Score
Grays		EA	Anglia	1.99	1.99	1.99	1.99	1.99
Great Ayton	99/00	LNE	LNE	2.33	2.33	2.33	2.33	2.33
Great Bentley	03/04	EA	Anglia	2.77	2.77	2.77	2.46	2.46
Great Chesterford	01/02	EA	Anglia	1.82	1.82	1.82	1.82	1.82
Great Coates	99/00	LNE	LNE	2.47	2.47	2.47	2.47	2.47
Great Malvern Station	04/05	GW	Western	2.10	2.10	2.10	2.10	2.27
Great Missenden	04/05	MID	LNW	2.01	2.01	2.01	2.06	2.36
Great Yarmouth	04/05	EA	Anglia	1.92	1.92	1.92	1.92	1.88
Green Lane	02/03	NW	LNW	2.40	2.40	1.92	1.92	1.92
Green Road	99/00	NW	LNW	2.12	2.12	2.12	2.12	2.12
Greenbank	01/02	NW	LNW	2.41	2.41	2.41	2.41	2.41
Greenfaulds	01/02	SCT	SCT	2.07	2.07	2.07	2.07	2.07
Greenfield	99/00	NW	LNW	3.35	3.35	3.35	3.35	3.35
Greenhithe	04/05	STH	Kent	2.00	2.00	2.00	2.00	2.27
Greenock Central	02/03	SCT	SCT	1.37	2.29	1.96	1.96	1.96
Greenock West	01/02	SCT	SCT	1.59	1.59	1.59	1.59	1.59
Greenwich	03/04	STH	Kent	2.28	2.28	2.28	2.38	2.38
Gretna Green	03/04	SCT	SCT	2.26	2.26	2.26	2.33	2.33
Grimsby Docks	02/03	LNE	LNE	2.35	2.35	2.24	2.24	2.24
Grimsby Docks Grimsby Town	02/03	LNE	LNE	2.29	2.29	2.58	2.58	2.58
Grindleford	02/03	NW	LNW	2.40	2.40	2.36	2.36	2.36
Grosmont	03/04	LNE	LNE	2.40	2.86	2.86	2.53	2.53
	03/04						2.33	2.33
Grove Park		STH	Kent	2.42	2.42	2.42		
Guide Bridge	02/03	NW	LNW	2.36	2.36	2.30	2.30	2.30
Guildford	01/02	STH	Wessex	2.05	2.05	2.05	2.05	2.05
Guiseley	02/02	LNE	LNE	2.30	2.30	2.30	2.30	2.30
Gunnersbury	02/03	EA	Anglia	1.90	1.90	1.85	1.85	1.85
Gunnislake	00101	GW	Western	2.00	2.00	2.00	2.00	2.00
Gunton	03/04	EA	Anglia	2.59	2.59	2.59	2.16	2.16
Gwersyllt	03/04	NW	LNW	2.31	2.31	2.31	2.04	2.04
Gypsy Lane	03/04	LNE	LNE	2.50	2.50	2.50	2.50	2.50
Habrough	02/03	LNE	LNE	2.48	2.48	2.29	2.29	2.29
Hackbridge	04/05	STH	Sussex	2.18	2.18	2.18	2.18	2.24
Hackney Central	04/05	EA	Anglia	2.06	2.06	2.06	2.06	2.07
Hackney Downs	04/05	EA	Anglia	1.92	1.92	2.00	2.00	1.76
Hackney Wick	04/05	EA	Anglia	1.95	1.95	2.05	2.05	1.94
Haddenham & Thame Parkway	04/05	MID	LNW	1.74	1.74	1.74	1.74	1.99
Haddiscoe	04/05	EA	Anglia	2.36	2.36	2.36	2.36	2.12
Hadfield	02/03	NW	LNW	2.66	2.66	2.18	2.18	2.18
Hadley Wood	99/00	LNE	LNE	1.99	1.99	1.99	1.99	1.99
Hagfold	04/05	NW	LNW	2.32	2.32	2.32	2.32	2.29
Hagley	04/05	MID	LNW	1.33	1.33	1.33	1.33	2.15
Hairmyres	04/05	SCT	SCT	2.18	2.18	2.18	2.18	1.68
Hale ,	04/05	NW	LNW	2.27	2.27	2.27	2.27	2.29
Halesworth	04/05	EA	Anglia	1.64	1.64	1.64	1.64	1.73
Halewood	03/04	NW	LNW	2.29	2.29	2.29	2.05	2.05
Halifax	02/03	LNE	LNE	0.00		1.95	1.95	1.95
Hall Green	02/03	MID	LNW	2.00	2.27	2.51	2.51	2.51
Hall i' th' Wood	01/02	NW	LNW	2.43	2.43	2.43	2.43	2.43
Hall Road	03/04	NW	LNW	2.43	2.43	2.43	2.02	2.02
Halling	03/04	STH	Kent	2.41	2.41	2.41	2.20	2.20
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of stat	ions and their gra	des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Haltwhistle	03/04	LNE	LNE	2.26	2.26	2.26	1.98	1.98
Ham Street	99/00	STH	Kent	2.56	2.56	2.56	2.56	2.56
Hamble	04/05	STH	Wessex	2.19	2.19	2.19	2.19	2.65
Hamilton Central	02/03	SCT	SCT	2.11	2.81	2.21	2.21	2.21
Hamilton Square	99/00	NW	LNW	2.44	2.44	2.44	2.44	2.44
Hamilton West	02/03	SCT	SCT	2.35	2.35	2.16	2.16	2.16
Hammerton	02/03	LNE	LNE	0.00		1.64	1.64	1.64
Hampden Park	03/04	STH	Sussex	2.45	2.45	2.45	3.30	3.30
Hampstead Heath	02/03	EA	Anglia	1.80	1.80	2.05	2.05	2.05
Hampton	04/05	STH	Wessex	2.61	2.61	2.61	2.61	2.74
Hampton Court	03/04	STH	Wessex	2.97	2.97	3.28	3.27	3.27
Hampton In Arden	04/05	MID	LNW	2.23	2.23	2.23	2.23	2.12
Hampton Wick	98/99	STH	Wessex	1.73	1.73	1.73	1.73	1.73
Hamstead	01/02	MID	LNW	1.56	1.56	1.56	1.56	1.56
Hamworthy Station	03/04	STH	Wessex	2.60	2.60	3.22	3.20	3.20
Hanborough	03/04	GW	Western	2.41	2.41	2.41	1.37	1.37
Handforth	02/03	NW	LNW	2.10	2.10	1.28	1.28	1.28
Hanwell	02/03	GW	Western	2.31	2.31	2.64	2.64	2.64
Hapton	03/04	NW	LNW	2.10	2.10	2.10	2.10	2.10
Harlech		GW	Western	1.63	1.63	1.63	1.63	1.63
Harlesden	03/04	MID	LNW	2.17	2.17	2.17	2.06	2.06
Harling Road	03/04	EA	Anglia	2.57	2.57	2.57	2.39	2.39
Harlington	03/04	MID	LNE	1.98	1.98	1.98	2.10	2.10
Harlow Mill	04/05	EA	Anglia	0.00	0.00	2.17	2.17	2.01
Harlow Town	04/05	EA	Anglia	2.01	2.01	2.01	2.01	2.01
Harold Wood	01/02	EA	Anglia	1.97	1.97	1.97	1.97	1.97
Harpenden	00/01	MID	LNE	2.18	2.18	2.18	2.18	2.18
Harrietsham	04/05	STH	Kent	2.51	2.51	2.51	2.51	2.62
Harringay	99/00	LNE	LNE	2.37	2.37	2.37	2.37	2.37
Harringay Green Lanes	02/03	EA	Anglia	0.00	0.00	1.95	1.95	1.95
Harrington	04/05	NW	LNW	2.21	2.21	2.21	2.21	2.24
Harrogate	03/04	LNE	LNE	2.30	2.30	2.30	2.37	2.37
Harrow & Wealdstone	00/01	MID	LNW	2.41	2.41	2.41	2.41	2.41
Hartford	01/02	NW	LNW	1.98	1.98	1.98	1.98	1.98
Hartlebury	02/03	MID	LNW	1.00	1.00	1.08	1.08	1.08
Hartlepool	02/03	LNE	LNE	2.20	2.20	2.35	2.35	2.35
Hartwood	01/02	SCT	SCT	2.19	2.19	2.19	2.19	2.19
Harwich International Port	04/05	EA	Anglia	1.89	1.89	1.95	1.95	1.70
Harwich Town	03/04	EA	Anglia	2.72	2.72	2.72	2.56	2.56
Haslemere	99/00	STH	Wessex	2.05	2.05	2.05	2.05	2.05
Hassocks	02/03	STH	Sussex	2.40	2.40	3.26	3.26	3.26
Hastings	02/03	STH	Kent	0.00	۷, ۱۰	5,20	5.20	0.00
Hatch End	00/01	MID	LNW	2.29	2.29	2.29	2.29	2.29
Hatfield	99/00	LNE	LNE	1.83	1.83	1.83	1.83	1.83
Hatfield & Stainforth	02/03	LNE	LNE	2.50	2.50	2.10	2.10	2.10
Hatfield Reverel	03/04	EA	Anglia	2.86	2.86	2.86	2.10	2.10
Hathersage	01/02	NW	LNW	2.12	2.12	2.12	2.12	2.12
Hattersley	01/02	NW	LNW	2.12	2.12	2.12	2.12	2.12
Hatton	04/03	MID	LNW	1.53	1.53	1.53	1.53	1.53
	99/00	STH	Wessex	2.39	2.39	2.39	2.39	2.39
Havant	02/03		LNE LNE					
Havenhouse Station Name		LNE		1.76	1.76	2.35	2.35	2.35
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of stat	ions and their gra	des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Haverfordwest		GW	Western	1.92	1.92	1.92	1.92	1.92
Hawarden	03/04	NW	LNW	2.65	2.65	2.65	2.05	2.05
Hawarden Bridge	04/05	NW	LNW	2.71	2.71	2.71	2.71	2.23
Hawkhead	04/05	SCT	SCT	2.22	2.22	2.19	2.19	1.49
Haydon Bridge	03/04	LNE	LNE	2.08	2.08	2.08	2.17	2.17
Haydons Road	03/04	STH	Sussex	2.44	2.44	2.44	2.30	2.30
Hayes	01/02	STH	Kent	2.68	2.68	2.68	2.68	2.68
Hayes and Harlington	02/03	GW	Western	2.18	2.18	2.37	2.37	2.37
Hayle	02/03	GW	Western	2.05	2.05	2.51	2.51	2.51
Haywards Heath	03/04	STH	Sussex	2.44	2.44	2.44	2.66	2.66
Hazel Grove	02/03	NW	LNW	1.20	1.20	2.17	2.17	2.17
Headcom	02/03	STH	Kent	2.38	2.38	2.55	2.55	2.55
Headingley		LNE	LNE	2.80	2.80	2.80	2.80	2.80
Headstone Lane	00/01	MID	LNW	2.03	2.03	2.03	2.03	2.03
Heald Green	04/05	NW	LNW	3.09	3.09	3.09	3.09	2.35
Healing	01/02	LNE	LNE	3.24	3.24	3.24	3.24	3.24
Heath High Station	04/05	GW	Western	2.09	2.09	2.09	2.09	2.60
Heath Low Level Station	04/05	GW	Western	2.83	2.42	2.30	2.30	2.38
Heaton Chapel	04/05	NW	LNW	1.90	1.90	1.90	1.90	2.41
Hebden Bridge	02/03	LNE	LNE	2.26	2.26	2.29	2.29	2.29
Heckington	03/04	LNE	LNE	1.89	1.89	1.89	2.46	2.46
Hedge End	04/05	STH	Wessex	2.03	2.03	2.03	2.03	2.06
Hednesford	02/03	MID	LNW	1.93	1.93	1.86	1.86	1.86
Heighington	03/04	LNE	LNE	1.61	1.61	1.61	1.86	1.86
Helensburgh Central	03/04	SCT	SCT	2.22	2.22	2.19	2.15	2.15
Helensburgh Upper	03/04	SCT	SCT	2.57	2.57	2.57	2.36	2.36
Hellifield	99/00	NW	LNW	2.26	2.26	2.26	2.26	2.26
Helmsdale	01/02	SCT	SCT	2.39	2.39	2.39	2.39	2.39
Helsby	03/04	NW	LNW	2.07	2.07	2.07	2.00	2.00
Hemel Hempstead	02/03	MID	LNW	2.12	2.12	2.13	2.13	2.13
Hendon	00/01	MID	LNE	2.23	2.23	2.23	2.23	2.23
Hengoed Station	04/05	GW	Western	2.16	2.16	2.16	2.16	1.87
Henley In Arden	03/04	MID	LNW	3.36	3.36	3.36	3.41	3.41
Henley-On-Thames	03/04	GW	Western	2.00	2.00	2.00	2.00	2.00
Hensall	01/02	LNE	LNE	1.93	1.93	1.93	1.93	1.93
Hereford	01/02	GW	Western	2.01	2.01	2.01	2.01	2.01
Herne Bay Station	03/04	STH		2.39	2.39	2.39	2.79	2.79
	99/00	STH	Kent	2.56				
Herne Hill	98/99		Kent Wessex		2.56	2.56	2.56	2.56
Hersham		STH		2.52	2.52	2.52	2.52	2.52
Hertford East	02/03 99/00	EA	Anglia 1 NIE	2.40	2.40	2.22	2.22	2.22
Hertford North		LNE	LNE	2.12	2.12	2.12	2.12	2.12
Hessle	03/04	LNE	LNE	2.22	2.22	2.22	2.40	2.40
Heswall	99/00	NW	LNW	2.34	2.34	2.34	2.34	2.34
Hever	03/04	STH	Sussex	2.27	2.27	2.27	3.02	3.02
Heworth	99/00	LNE	LNE	2.43	2.43	2.43	2.43	2.43
Hexham	03/04	LNE	LNE	2.15	2.15	2.15	2.08	2.08
Heyford	01/02	MID	LNW	2.07	2.07	2.07	2.07	2.07
Heysham Port	02/03	NW	LNW	2.80	2.80	2.48	2.48	2.48
High Brooms	01/02	STH	Kent	2.41	2.41	2.41	2.41	2.41
High Street	03/04	SCT	SCT	2.84	2.57	2.38	2.29	2.29
High Wycombe	00/01	MID	LNW	2.14	2.14	2.14	2.14	2.14
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of stations		des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Higham	03/04	STH	Kent	2.34	2.34	2.34	2.80	2.80
Highams Park	01/02	EA	Anglia	1.95	1.95	1.95	1.95	1.95
Highbridge & Burnham-On-Sea	03/04	GW	Western	2.90	2.90	2.90	2.66	2.66
Highbury & Islington [Gn City								
Line]	99/00	LNE	LNE	2.32	2.32	2.32	2.32	2.32
Highbury & Islington								
[N.London Line]		EA	Anglia	2.34	2.34	2.34	2.34	2.34
Hightown	02/03	NW	LNW	2.57	2.57	2.12	2.12	2.12
Hildenborough	01/02	STH	Kent	2.37	2.37	2.37	2.37	2.37
Hill Side	03/04	NW	LNW	2.06	2.06	2.06	2.11	2.11
Hillfoot	03/04	SCT	SCT	2.18	2.18	2.33	2.27	2.27
Hillington East	03/04	SCT	SCT	2.16	2.16	2.16	2.08	2.08
Hillington West	03/04	SCT	SCT	2.33	2.33	2.33	2.37	2.37
Hilsea	99/00	STH	Wessex	2.40	2.40	2.40	2.40	2.40
Hinchley Wood	98/99	STH	Wessex	2.61	2.61	2.61	2.61	2.61
Hinckley	00/01	MID	LNE	1.70	1.70	1.70	1.70	1.70
Hindley	04/05	NW	LNW	2.32	2.32	2.32	2.32	2.26
Hinton Admiral	04/05	STH	Wessex	2.70	2.70	2.70	2.70	2.62
Hitchin	99/00	LNE	LNE	2.59	2.59	2.59	2.59	2.59
Hither Green	99/00	STH	Kent	2.44	2.44	2.44	2.44	2.44
Hockley	00/01	EA	Anglia	2.50	2.50	2.50	2.50	2.50
Hollingbourne	04/05	STH	Kent	2.96	2.96	2.96	2.96	2.45
Hollinwood	03/04	NW	LNW	2.34	2.34	2.34	2.05	2.05
Holmes Chapel	02/03	NW	LNW	2.30	2.30	2.15	2.15	2.15
Holmwood	01/02	STH	Sussex	2.70	2.70	2.70	2.70	2.70
Holton Heath	01/02	STH	Wessex	2.67	2.67	2.67	2.67	2.67
Holyhead	02/03	NW	LNW	2.13	2.13	2.09	2.09	2.09
· · · · · · · · · · · · · · · · · · ·	01/02		SCT	2.13	2.13	2.42		2.42
Holytown		SCT					2.42	
Homerton	01/02	EA C)A/	Anglia	2.07	2.07	2.07	2.07	2.07
Honeybourne Station	04/05	GW	Western	2.37	2.37	2.37	2.37	2.24
Honiton	03/04	STH	Wessex	2.32	2.32	2.44	2.44	2.44
Honley	02/03	LNE	LNE	2.54	2.54	2.51	2.51	2.51
Honor Oak Park	02/03	STH	Sussex	2.02	2.02	2.52	2.52	2.52
Hook	01/02	STH	Wessex	2.40	2.40	2.40	2.40	2.40
Hooton	03/04	NW	LNW	2.06	2.06	2.06	2.05	2.05
Норе	01/02	NW	LNW	2.17	2.17	2.17	2.17	2.17
Hope [Flintshire]	04/05	NW	LNW	2.37	2.37	2.37	2.37	1.89
Hopton Heath		GW	Western	2.32	2.32	2.32	2.32	2.32
Horley	02/03	STH	Sussex	2.50	2.50	2.89	2.89	2.89
Hornbeam Park	02/03	LNE	LNE	2.10	2.10	2.67	2.67	2.67
Hornsey	99/00	LNE	LNE	2.54	2.54	2.54	2.54	2.54
Horsforth	98/99	LNE	LNE	2.40	2.40	2.40	2.40	2.40
Horsham	04/05	STH	Sussex	2.62	2.62	2.62	2.62	2.71
Horsley	03/04	STH	Wessex	2.62	2.62	2.62	3.19	3.19
Horton in Ribblesdale	01/02	NW	LNW	2.56	2.56	2.56	2.56	2.56
Hoscar	01/02	NW	LNW	2.64	2.64	2.64	2.64	2.64
Hough Green	03/04	NW	LNW	3.18	3.18	3.18	2.04	2.04
Hounslow	98/99	STH	Wessex	2.52	2.52	2.52	2.52	2.52
Hove	04/05	STH	Sussex	2.50	2.50	2.50	2.50	2.72
Hoveton & Wroxham	00/01	EA	Anglia	1.94	1.94	1.94	1.94	1.94
How Wood	04/05	MID	LNW	1.75	1.75	1.75	1.75	2.46
					, 🔾			

Table	List of stations and their gra	des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Howden	02/03	LNE	LNE	3.30	3.30	2.97	2.97	2.97
Howwood	03/04	SCT	SCT	2.00	2.00	2.00	2.00	2.00
Hoylake	03/04	NW	LNW	2.18	2.18	2.18	2.01	2.01
Hubberts Bridge	01/02	LNE	LNE	2.67	2.67	2.67	2.67	2.67
Hucknal	03/04	MID	LNE	1.52	1.52	1.52	1.08	1.08
Huddersfield	02/03	LNE	LNE	2.20	2.20	2.38	2.38	2.38
Hull	03/04	LNE	LNE	2.76	2.76	2.76	2.47	2.47
Humphrey Park	01/02	NW	LNW	2.08	2.08	2.08	2.08	2.08
Huncoat	03/04	NW	LNW	1.20	1.20	1.20	2.15	2.15
Hungerford	02/03	GW	Western	2.40	2.40	1.87	1.87	1.87
Hunmanby	00/01	LNE	LNE	1.98	1.98	1.98	1.98	1.98
Huntingdon	99/00	LNE	LNE	2.28	2.28	2.28	2.28	2.28
Huntly	01/02	SCT	SCT	1.22	1.22	1.22	1.22	1.22
Hunts Cross	01/02	NW	LNW	2.08	2.08	2.08	2.08	2.08
Hurst Green	03/04	STH	Sussex	2.40	2.40	2.40	2.89	2.89
Hutton Cranswic		LNE	LNE	2.69	2.69	2.69	2.69	2.69
Huyton	04/05	NW	LNW	2.15	2.15	2.15	2.15	2.04
Hyde Central	04/05	NW	LNW	2.30	2.30	2.30	2.30	2.56
Hyde North	01/02	NW	LNW	3.65	3.65	3.65	3.65	3.65
Hykeham	01/02	LNE	LNE	2.80	2.80	2.80	2.80	2.80
Hyndland	03/04	SCT	SCT	3.04	3.04	3.04	2.09	2.09
Hythe	03/04	EA	Anglia	2.69	2.69	2.69	2.83	2.83
IBM Halt	01/02	SCT	SCT	1.97	1.97	1.97	1.97	1.97
Ifield	04/05	STH	Sussex	2.52	2.52	2.52	2.52	2.79
Ilford	07/03	EA		1.89	1.89	1.89	1.89	1.89
Ilkley	01/02	LNE	Anglia LNE	2.30	2.30	2.30	2.30	2.30
Ince [Manchester		NW	LNW	3.65	3.65	2.00	2.00	2.00
Ince [Manchester				2.57			2.00	
	04/05	NW	LNW		2.57	2.08		2.11
Ingatestone	01/02	EA	Anglia	2.07	2.07	2.07	2.07	2.07
Insch	02/03	SCT	SCT	1.49	1.49	1.4	1.37	1.37
Invergordon	01/02	SCT	SCT	2.57	2.57	2.57	2.57	2.57
Invergowrie	04/05	SCT	SCT	2.76	2.76	2.9	2.89	1.74
Inverkeithing	04/05	SCT	SCT	2.14	2.14	2.1	2.15	1.37
Inverkip	01/02	SCT	SCT	2.09	2.09	2.09	2.09	2.09
Inverness	01/02	SCT	SCT	2.16	2.16	2.16	2.16	2.16
Invershin	01/02	SCT	SCT	2.11	2.11	2.11	2.11	2.11
Inverurie	01/02	SCT	SCT	1.97	1.97	1.97	1.97	1.97
lpswich	04/05	EA	Anglia	1.93	1.93	1.93	1.93	1.95
Irlam	02/03	NW	LNW	2.30	2.30	1.96	1.96	1.96
Irvine	03/04	SCT	SCT	2.09	2.09	2.09	2.17	2.17
Isleworth	04/05	STH	Wessex	2.81	2.81	2.81	2.81	2.54
Islip Station	04/05	GW	Western	2.00	2.00	2.00	2.00	2.40
lver	02/03	GW	Western	2.43	2.43	2.53	2.43	2.43
lvybridge	02/03	GW	Western	2.00	2.00	1.84	1.84	1.84
James Street		NW	LNW	2.30	2.30	2.30	2.30	2.30
Jewellery Quarte	r 01/02	MID	LNW	1.01	1.01	1.01	1.01	1.01
Johnston		GW	Western	1.70	1.70	1.70	1.70	1.70
Johnstone	03/04	SCT	SCT	2.11	2.11	2.11	2.13	2.13
Jordanhill	03/04	SCT	SCT	2.26	2.26	2.07	2.02	2.02
Kearsley	02/03	NW	LNW	4.00	4.00	2.39	2.39	2.39
Kearsney	98/99	STH	Kent	2.66	2.66	2.66	2.66	2.66
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of stat	ions and their gra	.des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Keighley		LNE	LNE	2.70	2.70	2.70	2.70	2.70
Keith	02/03	SCT	SCT	1.88	1.88	2.0	2.02	2.02
Kelvedon	04/05	EA	Anglia	1.95	1.95	1.95	1.95	1.91
Kemble	01/02	GW	Western	2.30	2.30	2.30	2.30	2.30
Kempston Hardwick	00/01	MID	LNE	1.67	1.67	1.67	1.67	1.67
Kempton Park	04/05	STH	Wessex					2.54
Kemsing	02/03	STH	Kent	2.50	2.50	2.66	2.66	2.66
Kemsley	02/03	STH	Kent	2.87	2.87	2.50	2.50	2.50
Kendal	01/02	NW	LNW	2.56	2.56	2.56	2.56	2.56
Kenley	04/05	STH	Sussex	2.49	2.49	2.49	2.49	2.26
Kennett	03/04	EA	Anglia	2.39	2.39	2.39	3.14	3.14
Kennishead		SCT	SCT	2.40	2.40	2.40	2.40	2.40
Kensal Green	03/04	MID	LNW	1.80	1.80	1.80	1.91	1.91
Kensal Rise	00/01	EA	Anglia	1.95	1.95	1.95	1.95	1.95
Kensington Olympia	99/00	STH	Sussex	2.43	2.43	2.43	2.43	2.43
Kent House	99/00	STH	Kent	2.54	2.54	2.54	2.54	2.54
Kentish Town	02/03	MID	LNE	2.24	2.24	2.27	2.27	2.27
Kentish Town West	04/05	EA	Anglia	2.00	2.00	2.00	2.00	2.15
Kenton	00/01	MID	LNW	2.05	2.05	2.05	2.05	2.05
Kents Bank		NW	LNW	2.00	2.00	2.00	2.00	2.00
Kettering	00/01	MID	LNE	1.75	1.75	1.75	1.75	1.75
Kew Bridge	04/05	STH	Wessex	3.01	3.01	3.01	3.01	2.71
Kew Gardens	02/03	EA	Anglia	2.00	2.00	2.02	2.02	2.02
Keyham	03/04	GW	Western	2.56	2.56	2.56	2.34	2.34
Keynsham	02/03	GW	Western	2.62	2.62	2.05	2.05	2.05
Kidbrooke	99/00	STH	Kent	2.49	2.49	2.49	2.49	2.49
Kidderminster	03/04	MID	LNW	1.85	1.85	1.85	1.81	1.81
Kidsgrove	04/05	NW	LNW	3.11	3.11	3.11	3.11	2.51
Kidwelly		GW	Western	1.78	1.78	1.78	1.78	1.78
Kilburn High Road	03/04	MID	LNW	1.81	1.81	1.81	2.02	2.02
Kildale	03/04	LNE	LNE	2.30	2.30	2.30	2.79	2.79
Kildonan	01/02	SCT	SCT	2.61	2.61	2.61	2.61	2.61
Kilgetty		GW	Western	1.71	1.71	1.71	1.71	1.71
Kilmarnock	03/04	SCT	SCT	1.98	1.98	1.98	2.03	2.03
Kilmaurs	03/04	SCT	SCT	2.31	2.31	2.31	2.23	2.23
Kilpatrick	03/04	SCT	SCT	2.11	2.11	2.21	2.49	2.49
Kilwinning	03/04	SCT	SCT	2.28	2.28	2.28	2.32	2.32
Kinbrace	01/02	SCT	SCT	2.75	2.75	2.75	2.75	2.75
Kingham	0.702	GW	Western	2.31	2.31	2.31	2.31	2.31
Kinghorn	04/05	SCT	SCT	2.11	2.11	2.2	2.16	1.22
Kings Cross Thameslink	00/01	MID	LNE	2.07	2.07	2.07	2.07	2.07
Kings Langley	04/05	MID	LNW	2.01	2.01	2.01	2.01	2.11
Kings Lynn	01/02	EA	Anglia	1.87	1.87	1.87	1.87	1.87
Kings Norton	01/02	MID	LNW	2.16	2.16	2.16	2.16	2.16
Kings Nympton	03/04	GW	Western	3.30	3.30	3.30	2.75	2.75
Kings Park	02/03	SCT	SCT	2.90	2.16	2.10	2.73	2.10
Kings Sutton	01/02	MID	LNW	2.18	2.18	2.18	2.18	2.18
Kingsknowe	02/03	SCT	SCT	2.16	2.16	2.0	2.03	2.03
Kingston	98/99	STH	Wessex	2.53	2.53	2.53	2.53	2.53
Kingswood	99/00	STH	Sussex	2.53 2.57	2.53	2.53	2.53	2.53
	01/02	SCT	SCT	2.00	2.00	2.00	2.00	2.00
Kingussie Station Name								
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of stati	ons and their gra	des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Kintbury		GW	Western	2.39	2.39	2.39	2.39	2.39
Kirby Cross	03/04	EA	Anglia	0.00	0.00	2.55	2.39	2.39
Kirk Sandall	99/00	LNE	LNE	2.59	2.59	2.59	2.59	2.59
Kirkby	04/05	NW	LNW	2.06	2.06	2.06	2.06	2.07
Kirkby in Ashfield	02/03	MID	LNE	1.35	1.35	1.27	1.27	1.27
Kirkby Stephen	01/02	NW	LNW	2.37	2.37	2.37	2.37	2.37
Kirkby-in-Furness	02/03	NW	LNW	1.88	1.88	2.01	2.01	2.01
Kirkcaldy	04/05	SCT	SCT	2.05	2.05	2.0	2.03	1.44
Kirkconnel	03/04	SCT	SCT	3.00	3.00	2.31	2.23	2.23
Kirkdale	02/03	NW	LNW	1.18	1.18	1.65	1.65	1.65
Kirkham & Wesham	03/04	NW	LNW	2.49	2.49	2.49	2.23	2.23
Kirkhill	02/03	SCT	SCT	2.33	2.33	2.20	2.20	2.20
Kirknewton	02/03	SCT	SCT	3.19	3.19	2.2	2.22	2.22
Kirkwood	02/03	SCT	SCT	2.00	2.00	2.06	2.06	2.06
Kirton Lindsey	01/02	LNE	LNE	3.18	3.18	3.18	3.18	3.18
Kiveton Bridge	01/02	LNE	LNE	2.17	2.17	2.17	2.17	2.17
Kiveton Park	02/03	LNE	LNE	2.14	2.14	2.09	2.09	2.09
Knaresborough	03/04	LNE	LNE	2.40	2.40	2.40	2.49	2.49
Knebworth	99/00	LNE	LNE	2.23	2.23	2.23	2.23	2.23
Knighton Station	04/05	GW	Western	2.07	2.07	2.07	2.07	2.11
Knockholt	99/00	STH	Kent	2.57	2.57	2.57	2.57	2.57
Knottingley	03/04	LNE	LNE	2.41	2.41	2.41	2.42	2.42
Knucklas		GW	Western	2.00	2.00	2.00	2.00	2.00
Knutsford	04/05	NW	LNW	2.38	2.38	2.38	2.38	2.07
Kyle of Lochalsh	01/02	SCT	SCT	2.02	2.02	2.02	2.02	2.02
Ladybank	04/05	SCT	SCT	2.28	2.28	2.3	2.35	1.17
Ladywell	01/02	STH	Kent	2.46	2.46	2.46	2.46	2.46
Laindon	01/02	EA	Anglia	1.82	1.82	1.93	1.93	1.93
Lairg	01/02	SCT	SCT	2.25	2.25	2.25	2.25	2.25
Lake	99/00	STH	Wessex	2.44	2.44	2.44	2.44	2.44
Lakenheath	03/04	EA	Anglia	1.57	2.56	1.83	1.97	1.97
Lamphey	02/03	GW	Western	1.57	2.07	2.00	2.00	2.00
Lanark	02/03	SCT	SCT	1.57	2.46	2.26	2.26	2.26
Lancaster	02/03	NW	LNW	2.11	2.11	1.94	1.94	1.94
Lancing	01/02	STH	Sussex	2.30	2.30	2.30	2.30	2.30
Landywood	04/05	MID	LNW	2.02	2.02	2.02	2.16	2.12
Langbank	01/02	SCT	SCT	2.49	2.49	2.49	2.49	2.49
Langho	04/05	NW	LNW	1.68	1.68	1.68	1.68	2.15
Langley	02/03	GW	Western	2.00	2.00	2.53	2.53	2.53
Langley Green	02/03	MID	LNW	1.19	1.19	1.20	1.20	1.20
Langley Mill	99/00	MID	LNE	1.75	1.75	1.75	1.75	1.75
Langside	02/03	SCT	SCT	2.60	2.75	2.65	2.65	2.65
Langwathby	99/00	NW	LNW	1.51	1.51	1.51	1.51	1.51
Langwith Whaley Thorns	02/03	LNE	LNE	0.00	1.01	2.00	2.00	2.00
Lapford	03/04	GW	Western	2.36	2.36	2.36	2.31	2.31
Lapworth	01/02	MID	LNW	1.44	1.44	1.44	1.44	1.44
Larbert	01/02	SCT	SCT	2.09	2.09	2.09	2.09	2.09
Largs	03/04	SCT	SCT	1.43	1.43	1.43	1.51	1.51
Largs Lawrence Hill	03/04	GW	Western	2.15	2.15	1.43	2.24	2.24
	03/04	NW	LNW	2.15	2.15	2.36	2.24	2.24
Layton	99/00	NW						
Lazonby & Kirkoswald			LNW	1.66	1.66	1.66	1.66	1.66
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of station	ons and their gra	.des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Lea Green	02/03	NW	LNW	0.00		1.92	1.92	1.92
Lea Hall	01/02	MID	LNW	1.34	1.34	1.34	1.34	1.34
Leagrave	00/01	MID	LNE	2.00	2.00	2.00	2.00	2.00
Lealholm	02/03	LNE	LNE	2.39	2.39	2.39	2.39	2.39
Leamington Spa	01/02	MID	LNW	1.81	1.81	1.81	1.81	1.81
Leasowe	02/03	NW	LNW	2.14	2.14	2.00	2.00	2.00
Leatherhead	03/04	STH	Sussex	2.49	2.49	2.49	2.92	2.92
Ledbury	03/04	GW	Western	2.04	2.04	2.04	2.31	2.31
Lee	01/02	STH	Kent	2.16	2.16	2.16	2.16	2.16
Leeds City	04/05	MJS	Managed Stations	3.02	3.02	1.91	1.97	1.97
Leicester	00/01	MID	LNE	1.55	1.55	1.55	1.55	1.55
Leigh (Kent)	02/03	STH	Sussex	2.54	2.54	3.06	3.06	3.06
Leigh-on-Sea	01/02	EA	Anglia	1.95	1.95	1.95	1.95	1.95
Leighton Buzzard	02/03	MID	LNW	2.00	2.00	1.84	1.84	1.84
Lelant Slatings	04/05	GW	Western	2.08	2.08	2.08	2.08	2.16
Lelant Station	04/05	GW	Western	2.06	2.06	2.06	2.06	2.16
Lenham	04/05	STH	Kent	2.62	2.62	2.62	2.62	2.58
Lennam Lenzie	04/05	SCT	SCT	2.62	۷.0۷	2.62	2.62	1.39
	03/04	GW			1.96	1.96	2.22	
Leominster			Western	1.96				2.00
Letchworth	99/00	LNE	LNE	2.10	2.10	2.10	2.10	2.10
Leuchars	04/05	SCT	SCT	2.09	2.09	2.1	2.14	1.14
Levenshulme	04/05	NW	LNW	2.19	2.19	2.19	2.19	2.19
Lewes	01/02	STH	Sussex	2.13	2.13	2.13	2.13	2.13
Lewisham	04/05	STH	Kent	2.43	2.43	2.43	2.43	2.50
Leyland	01/02	NW	LNW	2.29	2.29	2.29	2.29	2.29
Leyton Midland Road	03/04	EA	Anglia	2.80	2.80	2.80	2.00	2.00
Leytonstone High Road	00/01	EA	Anglia	1.81	1.81	1.81	1.81	1.81
Lichfield City	02/03	MID	LNW	2.99	2.05	2.53	2.53	2.53
Lichfield Trent Valley	03/04	MID	LNW	2.91	2.91	2.91	2.61	2.61
Lidlington	00/01	MID	LNE	2.00	2.00	2.00	2.00	2.00
Limehouse	04/05	EA	Anglia	2.29	2.29	2.29	2.29	2.28
Lincoln Central	03/04	LNE	LNE	1.27	1.27	1.27	2.28	2.28
Lingfield	04/05	STH	Sussex	2.48	2.48	2.48	2.48	2.52
Lingwood	03/04	EA	Anglia	1.86	1.86	1.86	2.31	2.31
Linlithgow	04/05	SCT	SCT	2.37	2.37	2.4	2.35	1.59
Liphook	99/00	STH	Wessex	2.61	2.61	2.61	2.61	2.61
Liskeard	01/02	GW	Western	2.61	2.61	2.61	2.61	2.61
Liss	99/00	STH	Wessex	2.51	2.5	2.51	2.51	2.51
Lisvane & Thornhill	98/99	GW	Western	2.00	2.00	2.00	2.00	2.00
Little Kimble	04/05	MID	LNW	2.75	2.75	2.75	2.75	2.64
Little Sutton	02/03	NW	LNW	2.30	2.30	2.06	2.06	2.06
Littleborough	02/03	NW	LNW	2.13	2.13	2.06	2.06	2.06
Littlehampton	02/03	STH	Sussex	2.49	2.49	2.63	2.63	2.63
Littlehaven	03/04	STH	Sussex	2.59	2.59	2.59	2.58	2.58
Littleport	01/02	EA	Anglia	2.04	2.04	2.04	2.04	2.04
Liverpool Central	-	NW	LNW	2.31	2.31	2.31	2.31	2.31
Liverpool Lime Street	04/05	MJS	Managed Stations	2.55	2.55	2.55	2.55	2.42
Liverpool Lime Street (Low	55	,						
Level)	02/03	NW	LNW	0.00		2.90	2.90	2.90
Liverpool Sandhills	04/05	NW	LNW	2.21	2.21	2.21	2.21	1.96
Livingston North	04/05	SCT	SCT	2.26	2.26	2.3	2.33	1.94
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of station	ns and their gra	ides						
	inclusion			Scores	Scores	Scores	Scores	Scores
Livingston South	02/03	SCT	SCT	2.30	2.30	2.5	2.53	2.53
Llanaber	03/04	GW	Western	1.80	1.80	1.80	1.90	1.90
Llanbedr	03/04	GW	Western	1.25	1.25	1.25	2.29	2.29
Llanbister Road		GW	Western	2.00	2.00	2.00	2.00	2.00
Llanbradach Station	04/05	GW	Western	2.09	2.17	1.73	1.73	1.99
Llandaf		GW	Western	2.92	2.92	2.92	2.92	2.92
Llandanwyg	03/04	GW	Western	1.31	1.31	1.31	1.87	1.87
Llandecwyn	03/04	GW	Western	1.46	1.46	1.46	1.97	1.97
Llandeilo		GW	Western	3.11	3.11	3.11	3.11	3.11
Llandovery		GW	Western	2.00	2.00	2.00	2.00	2.00
Llandrindod Wells	04/05	GW	Western	2.00	2.00	2.00	1.95	2.47
Llandudno	02/03	NW	LNW	2.27	2.27	2.09	2.09	2.09
Llandudno Junction	04/05	NW	LNW	2.23	2.23	2.23	2.23	2.04
Llandybie		GW	Western	2.02	2.02	2.02	2.02	2.02
Llanelli		GW	Western	2.11	2.11	2.11	2.11	2.11
Llanfairfechan	04/05	NW	LNW	2.19	2.19	2.19	2.19	2.04
Llanfairpwll	99/00	NW	LNW	2.22	2.22	2.22	2.22	2.22
Llangadog		GW	Western	2.10	2.10	2.10	2.10	2.10
Llangammarch		GW	Western	2.00	2.00	2.00	2.00	2.00
Llangennech		GW	Western	2.17	2.17	2.17	2.17	2.17
Llangynllo		GW	Western	2.00	2.00	2.00	2.00	2.00
Llanishen		GW	Western	2.07	2.07	2.07	2.07	2.07
Llansamlet		GW	Western	2.00	2.00	2.00	2.00	2.00
Llanwrda		GW	Western	2.00	2.00	2.00	2.00	2.00
Llanwrst	04/05	NW	LNW	2.11	2.11	2.11	2.11	2.00
Llanwrtyd	0 1/05	GW	Western	2.57	2.57	2.57	2.57	2.57
Llwyngwril	03/04	GW	Western	2.23	2.23	2.23	1.61	1.61
Llwynypia	03/01	GW	Western	2.10	2.10	2.10	2.10	2.10
Loch Awe	04/05	SCT	SCT	2.47	2.47	2.47	2.47	1.18
Lochailort	01/02	SCT	SCT	2.23	2.23	2.77	2.77	2.23
Locheil Outward Bound	01/02	SCT	SCT	2.00	2.00	2.00	2.00	2.00
Locheilside Locheilside	01/02	SCT	SCT	2.00	2.00	2.00	2.00	2.00
	04/05	SCT	SCT	2.17	2.17	2.2	2.16	1.30
Lochgelly	04/03							
Lochluichart		SCT	SCT	1.99	1.99	1.99	1.99	1.99
Lochwinnoch	03/04	SCT	SCT	2.04	2.04	2.04	2.02	2.02
Lockerbie	02/03	SCT	SCT	2.05	2.05	2.18	2.18	2.18
Lockwood	99/00	LNE	LNE	2.38	2.38	2.38	2.38	2.38
London Bridge	04/05	MJS	Managed Stations	2.11	2.11	3.09	2.91	2.65
London Charing Cross	04/05	MJS	Managed Stations	2.40	2.40	2.17	2.17	2.17
London Euston	04/05	MJS	Managed Stations	2.40	2.40	2.64	2.29	2.29
London Fields	03/04	EA	Anglia	2.00	2.00	2.00	2.04	2.04
London Kings Cross	04/05	MJS	Managed Stations	2.11	2.11	2.37	2.44	2.44
London Liverpool Street	04/05	MJS	Managed Stations	3.13	3.13	2.10	2.10	2.10
London Paddington	04/05	MJS	Managed Stations	3.12	3.12	2.35	2.40	2.40
London Road (Brighton)	99/00	STH	Sussex	2.52	2.52	2.52	2.52	2.52
London Road (Guildford)	99/00	STH	Wessex	2.58	2.58	2.58	2.58	2.58
London Victoria	04/05	MJS	Managed Stations	2.70	2.70	2.56	2.54	2.45
	04/05	MJS	Managed Stations	2.78	2.78	2.63	2.38	2.22
London Waterloo				$\gamma$ $1$ $\gamma$	$\gamma$ $1$ $\gamma$	$\gamma$ $1$ $\gamma$	2 1 /	O 1 /
Long Buckby	03/04	MID	LNW	2.13	2.13	2.13	2.16	2.16
Long Buckby Long Eaton	00/01	MID	LNE	1.31	1.31	1.31	1.31	1.31
Long Buckby								

Table List of static	ons and their gra								
	inclusion			Scores	Scores	Scores	Scores	Scores	
Longbeck	99/00	LNE	LNE	2.57	2.57	2.57	2.57	2.57	
Longbridge	02/03	MID	LNW	1.68	1.68	1.83	1.83	1.83	
Longcross	03/04	STH	Wessex	2.82	2.82	3.44	3.37	3.37	
Longfield	99/00	STH	Kent	2.36	2.36	2.36	2.36	2.36	
Longniddry	04/05	SCT	SCT	2.40	2.40	2.3	2.25	1.24	
Longport	04/05	NW	LNW	3.23	3.23	3.23	3.23	2.57	
Longton	00/01	MID	LNE	2.79	2.79	2.79	2.79	2.79	
Looe	03/04	GW	Western	2.17	2.17	2.17	2.24	2.24	
Lostock	03/04	NW	LNW	2.10	2.10	2.10	2.32	2.32	
Lostock Gralam	01/02	NW	LNW	3.68	3.68	2.00	3.68	3.68	
Lostock Hall	03/04	NW	LNW	2.39	2.39	2.39	2.24	2.24	
Lostwithiel		GW	Western	2.67	2.67	2.67	2.67	2.67	
Loughborough	00/01	MID	LNE	1.91	1.91	1.91	1.91	1.91	
Loughborough Junction	99/00	STH	Sussex	2.46	2.46	2.46	2.46	2.46	
Lowdham	00/01	MID	LNE	1.42	1.42	1.42	1.42	1.42	
Lower Sydenham	99/00	STH	Kent	2.48	2.48	2.48	2.48	2.48	
Lowestoft	00/01	EA	Anglia	1.34	1.34	1.20	1.24	1.24	
Ludlow	33701	GW	Western	2.00	2.00	2.00	2.00	2.00	
Luton	03/04	MID	LNE	2.68	2.68	2.68	2.08	2.08	
Luton Airport Parkway	02/03	MID	LNE	0.00	2.00	1.02	1.02	1.02	
Luxulyan	04/05	GW	Western	2.08	2.08	2.08	2.08	2.61	
Lydney	0 1/05	GW	Western	2.09	2.09	2.09	2.09	2.09	
Lye	04/05	MID	LNW	1.82	1.82	1.82	1.82	2.48	
Lymington Pier	01/02	STH	Wessex	2.21	2.21	2.21	2.21	2.21	
Lymington Town	99/00	STH	Wessex	2.48	2.48	2.48	2.48	2.48	
Lympstone Commando	04/05	GW	Western	2.80	2.80	2.80	2.80	1.99	
Lympstone Village	04/05	GW	Western	2.70	2.70	2.70	2.70	2.02	
Lytham	01/02	NW	LNW	2.47	2.47	2.47	2.47	2.47	
Macclesfield	01/02	NW	LNW	2.47	2.29	2.47	2.47	2.47	
Machynlleth	01/02	GW	Western	1.70	1.70	1.70	1.70	1.70	
<u> </u>		GW	Western	2.14	2.14	2.14	2.14	2.14	
Maesteg (Funnam Band)		GW		2.14	2.14	2.14	2.14		
Maesteg (Ewenny Road)	02/02		Western					2.14	
Maghull	02/03	NW	LNW	1.87	1.87	1.79	1.79	1.79	
Maiden Newton	03/04	STH	Wessex	3.00	3.00	2.94	2.57	2.57	
Maidenhead	02/03	GW	Western	2.20	2.20	2.62	2.62	2.62	
Maidstone Barracks Station	03/04	STH	Kent	2.24	2.24	2.24	2.61	2.61	
Maidstone East	04/05	STH	Kent	2.51	2.51	2.51	2.51	2.65	
Maidstone West	99/00	STH	Kent	2.53	2.53	2.53	2.53	2.53	
Malden Manor	98/99	STH	Wessex	2.55	2.55	2.55	2.55	2.55	
Mallaig	01/02	SCT	SCT	2.07	2.07	2.07	2.07	2.07	
Malton	03/04	LNE	LNE	2.18	2.18	2.18	2.28	2.28	
Malvern Link		GW	Western	2.09	2.09	2.09	2.09	2.09	
Manchester Airport	04/05	NW	LNW	1.61	1.61	1.61	1.61	2.03	
Manchester Oxford Road	02/03	NW	LNW	2.21	2.21	2.01	2.01	2.01	
Manchester Piccadilly	04/05	MJS	Managed Stations	0.00	2.00	1.50	2.80	1.69	
Manchester Victoria	02/03	NW	LNW	2.67	2.67	2.02	2.02	2.02	
Manea	03/04	EA	Anglia	2.35	2.35	2.35	2.23	2.23	
Manningtree	00/01	EA	Anglia	2.13	2.13	2.13	2.13	2.13	
Manor Park		EA	Anglia	2.30	2.30	2.30	2.30	2.30	
Manor Road	03/04	NW	LNW	2.07	2.07	2.07	2.08	2.08	
Manorbier		GW	Western	2.00	2.00	2.00	2.00	2.00	
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05	

Table	List of station	tions and their grades							
,		inclusion			Scores	Scores	Scores	Scores	Scores
Manors		99/00	LNE	LNE	2.65	2.65	2.65	2.65	2.65
Mansfield		00/01	MID	LNE	1.10	1.10	1.10	1.10	1.10
Mansfield Woodh	ouse	03/04	MID	LNE	1.01	1.01	1.01	1.35	1.35
March		00/01	EA	Anglia	2.49	2.49	2.49	2.49	2.49
Marden		04/05	STH	Kent	2.51	2.51	2.51	2.51	2.53
Margate		01/02	STH	Kent	2.29	2.29	2.29	2.29	2.29
Market Harborou	gh	00/01	MID	LNE	1.99	1.99	1.99	1.99	1.99
Market Rasen		03/04	LNE	LNE	1.28	1.28	1.32	2.42	2.42
Markinch		04/05	SCT	SCT	2.22	2.22	2.2	2.23	1.41
Marks Tey		01/02	EA	Anglia	1.98	1.98	1.98	1.98	1.98
Marlow			GW	Western	2.19	2.19	2.19	2.19	2.19
Marple		04/05	NW	LNW	2.07	2.07	2.07	2.07	2.26
Marsden		03/04	NW	LNW	2.36	2.36	2.36	1.95	1.95
Marske		03/04	LNE	LNE	1.73	1.73	1.73	2.56	2.56
Marston Green		01/02	MID	LNW	1.39	1.39	1.39	1.39	1.39
Martin Mill		02/03	STH	Kent	4.35	4.35	2.62	2.62	2.62
Martin'S Heron		03/04	STH	Wessex	2.11	2.11	2.12	2.22	2.22
Marton		02/03	LNE	LNE	2.61	2.61	3.06	3.06	3.06
Maryhill		02/03	SCT	SCT	2.33	2.33	2.13	2.13	2.13
Maryland		04/05	EA	Anglia	2.23	2.23	2.23	2.23	2.31
Marylebone		0 1/05	MID	LNW	2.03	2.03	2.03	2.03	2.03
Maryport		02/03	NW	LNW	1.88	1.88	2.00	2.00	2.00
Matlock		02/03	MID	LNE	2.75	2.75	2.75	2.21	2.21
Matlock Bath		00/01	MID	LNE	2.73	2.73	2.73	2.47	2.47
Mauldeth Road		01/02	NW	LNW	3.04	3.04	3.04	3.04	3.04
Maxwell Park		01/02	SCT	SCT	2.71	2.71			
		02/03	SCT	SCT	2.71	2.71	2.14	2.14	2.14
Maybole					2.33		2.33	2.51	
Maze Hill		03/04	STH	Sussex		2.37			2.51
Meadowhall		02/03	LNE	LNE	1.35	1.35	1.46	1.46	1.46
Meldreth		01/02	EA	Anglia	1.77	1.77	1.77	1.77	1.77
Melksham		0.1.702	GW	Western	2.25	2.25	2.25	2.25	2.25
Melton		01/02	EA	Anglia	1.75	0.00	1.89	1.89	1.89
Melton Mowbray		00/01	MID	LNE	3.90	3.90	3.90	3.90	3.90
Menheniot		01/02	GW	Western	3.14	3.14	3.14	3.14	3.14
Menston		03/04	LNE	LNE	2.50	2.50	2.50	2.33	2.33
Meols		03/04	NW	LNW	2.18	2.18	2.18	2.36	2.36
Meols Cop		03/04	NW	LNW	2.58	2.58	2.58	2.58	2.58
Meopham		99/00	STH	Kent	2.47	2.47	2.47	2.47	2.47
Merstham		03/04	STH	Sussex	2.51	2.51	2.51	3.08	3.08
Merthyr Tydfil Sta		04/05	GW	Western	2.79	2.79	2.79	2.79	2.01
Merthyr Vale Stati	on	04/05	GW	Western	2.86	2.86	2.86	2.86	2.12
Metheringham		02/03	LNE	LNE	1.38	1.38	2.14	2.14	2.14
Metrocentre		02/03	LNE	LNE	2.08	2.08	2.42	2.42	2.42
Mexborough		02/03	LNE	LNE	2.19	2.19	1.90	1.90	1.90
Micheldever		01/02	STH	Wessex	2.23	2.23	2.23	2.23	2.23
Micklefield		03/04	LNE	LNE	1.30	1.30	1.30	2.09	2.09
Middlesbrough		99/00	LNE	LNE	2.48	2.48	2.48	2.48	2.48
Middlewood		01/02	NW	LNW	2.75	2.75	2.75	2.75	2.75
Midgham		02/03	GW	Western	2.17	2.17	2.22	2.22	2.22
Milford		99/00	STH	Wessex	2.59	2.59	2.59	2.59	2.59
Milford Haven			GW	Western	2.00	2.00	2.00	2.00	2.00
Station Name		Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of station:	s and their gra	des								
	inclusion			Scores	Scores	Scores	Scores	Scores		
Mill Hill [Lancashire]	03/04	NW	LNW	3.03	3.03	3.03	2.03	2.03		
Mill Hill Broadway [N.London]	00/01	MID	LNE	2.63	2.63	2.63	2.63	2.63		
Millbrook	04/05	STH	Wessex	2.68	2.68	2.68	2.68	2.48		
Millbrook Staton	03/04	MID	LNE	1.00	1.00	1.00	1.10	1.10		
Milliken Park	03/04	SCT	SCT	2.13	2.13	2.13	2.09	2.09		
Millom	02/03	NW	LNW	1.88	1.88	2.00	2.00	2.00		
Mills Hill	03/04	NW	LNW	2.46	2.46	2.46	2.10	2.10		
Milngavie	03/04	SCT	SCT	2.02	2.02	2.02	2.04	2.04		
Milnrow	99/00	NW	LNW	2.58	2.58	2.58	2.58	2.58		
Milton Keynes Central	02/03	MID	LNW	2.00	2.00	1.93	1.93	1.93		
Minffordd	03/04	GW	Western	1.32	1.32	1.32	2.01	2.01		
Minster	99/00	STH	Kent	2.26	2.26	2.26	2.26	2.26		
Mirfield	02/03	LNE	LNE	1.00	1.00	2.44	2.44	2.44		
Mistley	00/01	EA	Anglia	2.22	2.22	2.22	2.22	2.22		
Mitcham Junction	02/03	STH	Sussex	2.22	2.22	2.86	2.86	2.86		
Mobberley	03/04	NW	LNW	2.70	2.70	2.70	2.35	2.35		
Monifieth	04/05	SCT	SCT	2.36	2.36	2.36	2.36	1.42		
Monks Risborough	02/03	MID	LNW	2.40	2.40	2.00	2.00	2.00		
Montpelier Montpelier	03/04	GW	Western	1.48	1.48	2.45	2.35	2.35		
Montrose	03/04	SCT	SCT	2.07	2.07	2.43	2.07	1.40		
Moorfields	04/03	NW	LNW	2.48	2.48	2.48	2.48	2.48		
	99/00	LNE	LNE	2.40	2.40	2.40	2.40	2.22		
Moorgate Moorside	04/05	NW	LNW				2.22			
				2.41	2.41	2.41		2.46		
Moorthorpe	99/00	LNE	LNE	2.41	2.41	2.41	2.41	2.41		
Morar	01/02	SCT	SCT	2.20	2.20	2.20	2.20	2.20		
Morchard Road	03/04	GW	Western	2.22	2.22	2.22	1.87	1.87		
Morden South	03/04	STH	Sussex	2.15	2.15	2.15	2.81	2.81		
Morecambe	01/02	NW	LNW	2.05	2.05	2.05	2.05	2.05		
Moreton	03/04	STH	Wessex	2.23	2.23	2.67	2.78	2.78		
Moreton [Merseyside]	02/03	NW	LNW	2.13	2.13	2.11	2.11	2.11		
Moreton in the Marsh	03/04	GW	Western	2.10	2.10	2.10	2.88	2.88		
Morfa Mawddach	03/04	GW	Western	1.54	1.54	1.54	1.75	1.75		
Morley	02/03	LNE	LNE	2.04	2.04	2.04	2.04	2.04		
Morpeth	03/04	LNE	LNE	2.22	2.22	2.22	2.19	2.19		
Mortimer	04/05	STH	Wessex	2.42	2.42	2.42	2.42	2.66		
Mortlake	03/04	STH	Wessex	2.67	2.67	2.70	2.71	2.71		
Moses Gate	03/04	NW	LNW	2.70	2.70	2.70	2.00	2.00		
Moss Side (Lanc)	03/04	NW	LNW	2.58	2.58	2.58	2.42	2.42		
Mossley	03/04	NW	LNW	2.34	2.34	2.34	2.05	2.05		
Mossley Hill	03/04	NW	LNW	2.25	2.25	2.25	2.01	2.01		
Mosspark	04/05	SCT	SCT	2.11	2.11	2.11	2.11	1.25		
Moston	03/04	NW	LNW	2.66	2.66	2.66	2.23	2.23		
Motherwell		SCT	SCT	2.29	2.29	2.29	2.29	2.29		
Motspur Park	98/99	STH	Wessex	2.37	2.37	2.40	2.40	2.40		
Mottingham	01/02	STH	Kent	2.51	2.51	2.51	2.51	2.51		
Mouldsworth	03/04	NW	LNW	2.30	2.30	2.30	2.49	2.49		
Moulsecoomb	02/03	STH	Sussex	2.44	2.44	3.00	3.00	3.00		
Mount Florida	02/03	SCT	SCT	2.20	2.20	2.15	2.15	2.15		
Mount Vernon	02/03	SCT	SCT	2.00	2.00	2.09	2.09	2.09		
Mountain Ash		GW	Western	2.78	2.78	2.78	2.78	2.78		
Muir of Ord	01/02	SCT	SCT	2.28	2.28	2.28	2.28	2.28		
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05		

Table List o	f stations and their grad							
	inclusion			Scores	Scores	Scores	Scores	Scores
Muirend	02/03	SCT	SCT	1.92	2.16	2.20	2.20	2.20
Musselburgh	04/05	SCT	SCT	2.01	2.01	2.0	2.01	1.33
Mytholmroyd	02/03	LNE	LNE	2.19	2.19	2.89	2.89	2.89
Nafferton	03/04	LNE	LNE	2.25	2.25	2.25	2.25	2.25
Nailsea & Backwell		GW	Western	2.43	2.43	2.43	2.43	2.43
Nairn	01/02	SCT	SCT	1.66	1.66	1.66	1.66	1.66
Nantwich	03/04	GW	Western	2.62	2.62	2.62	2.13	2.13
Narberth		GW	Western	1.67	1.67	1.67	1.67	1.67
Narborough	00/01	MID	LNE	1.87	1.87	1.87	1.87	1.87
Navigation Road	01/02	NW	LNW	2.05	2.05	2.05	2.05	2.05
Neath Station	04/05	GW	Western	2.24	2.24	2.49	2.49	2.11
Needham Market	00/01	EA	Anglia	2.41	2.41	2.41	2.41	2.41
Neilston	02/03	SCT	SCT	2.14	2.14	2.18	2.18	2.18
Nelson		NW	LNW	3.10	3.10	3.10	3.10	3.10
Neston	00/01	NW	LNW	1.69	1.69	1.69	1.69	1.69
Netherfield	03/04	MID	LNE	1.13	1.13	1.13	1.91	1.91
Nethertown	04/05	NW	LNW	3.39	3.39	3.39	3.39	2.45
Netley	04/05	STH	Wessex	2.57	2.57	2.57	2.57	2.71
New Barnet	99/00	LNE	LNE	2.40	2.40	2.40	2.40	2.40
New Beckenham	01/02	STH	Kent	2.38	2.38	2.38	2.38	2.38
New Brighton	01/02	NW	LNW	2.25	2.25	2.25	2.25	2.25
New Clee	02/03	LNE	LNE	2.47	2.47	2.33	2.33	2.33
New Cross	02/03	STH	Kent	2.38	2.38	2.65	2.65	2.65
New Cross Gate	02/03	STH	Sussex	2.01	2.01	2.28	2.28	2.28
New Cumnock	03/04	SCT	SCT	2.11	2.11	2.11	2.06	2.06
New Eltham	98/99	STH	Kent	2.28	2.28	2.29	2.29	2.29
New Hey	01/02	NW	LNW	2.00	2.00	2.00	2.00	2.00
New Holland	99/00	LNE	LNE	2.68	2.68	2.68	2.68	2.68
New Hythe	03/04	STH	Kent	2.77	2.77	2.77	3.44	3.44
New Lane	03/04	NW	LNW	2.64	2.64	2.64	2.28	2.28
New Malden	04/05	STH	Wessex	2.48	2.48	2.48	2.48	2.90
New Mills Central	03/04	NW	LNW	2.15	2.15	2.15	2.08	2.08
New Mills Newton	01/02	NW	LNW	2.74	2.74	2.74	2.74	2.74
New Milton	04/05	STH	Wessex	2.64	2.64	2.64	2.64	2.94
New Pudsey	01/02	LNE	LNE	2.01	2.01	2.01	2.01	2.01
New Fudsey  New Southgate	99/00	LNE	LNE	2.41	2.41	2.41	2.41	2.41
Newark Castle	02/03	LNE	LNE	1.26	1.26	1.55	1.55	1.55
Newark Castle  Newark North Gate	02/03	LNE	LNE	2.15	2.15	2.20	2.20	2.20
Newbury	02/03	GW	Western	2.13	2.13	2.32	2.32	2.20
Newbury Racecourse	02/03	GW	Western	2.00	2.00	2.06	2.06	2.06
Newcastle	02/03	LNE	LNE	2.64	2.64	2.43	2.43	2.43
	04/05	SCT	SCT	0.00	∠.07	1.00	1.00	1.00
Newcraighall	99/00	STH		2.83	2.83	2.83	2.83	2.83
Newhaven Harbour	99/00	STH	Sussex					
Newhaven Town	99/00		Sussex	2.56	2.56	2.56	2.56	2.56
Newington		STH	Kent	2.80	2.80	2.80	2.80	2.80
Newmarket	03/04 04/05	EA	Anglia Anglia	2.24	2.24	2.24	2.40	2.40
Newport		EA	Anglia	2.31	2.31	2.31	2.31	2.40
Newport	03/04	GW	Western	2.17	2.17	2.17	2.30	2.30
Newquay Station	04/05	GW	Western	2.30	2.30	2.30	2.30	2.61
Newstead	00/01	MID	LNE	1.31	1.31	1.31	1.31	1.31
Newton	02/03	SCT	SCT	2.25	2.25	2.31	2.31	2.31
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table	List of stati	f stations and their grades							
		inclusion			Scores	Scores	Scores	Scores	Scores
Newton Abbot		04/05	GW	Western	1.90	1.90	2.26	2.26	2.07
Newton Aycliffe		02/03	LNE	LNE	1.88	1.88	2.80	2.80	2.80
Newton For Hyd	de	02/03	NW	LNW	2.25	2.25	2.33	2.33	2.33
Newton On Ayr		03/04	SCT	SCT	2.56	2.56	2.56	2.24	2.24
Newton St Cyre	S		GW	Western	2.00	2.00	2.00	2.00	2.00
Newton-le-Willo	OWS	02/03	NW	LNW	2.40	2.40	2.27	2.27	2.27
Newtonmore		01/02	SCT	SCT	2.30	2.30	2.30	2.30	2.30
Newtown [Powy	ys]		GW	Western	2.06	2.06	2.06	2.06	2.06
Ninian Park		04/05	GW	Western	2.00	2.00	2.05	2.05	2.22
Nitshill		03/04	SCT	SCT	2.59	2.59	2.59	1.82	1.82
Norbiton		98/99	STH	Wessex	2.24	2.24	2.24	2.24	2.24
Norbury		03/04	STH	Sussex	2.33	2.33	2.33	2.23	2.23
Normans Bay		99/00	STH	Sussex	2.38	2.38	2.38	2.38	2.38
Normanton		01/02	LNE	LNE	2.44	2.44	2.44	2.44	2.44
North Berwick		04/05	SCT	SCT	2.02	2.02	2.1	2.07	1.27
North Camp		01/02	STH	Wessex	2.51	2.51	2.51	2.51	2.51
North Dulwich		04/05	STH	Sussex	2.11	2.11	2.11	2.11	1.92
North Llanwrst		01/02	NW	LNW	2.76	2.76	2.76	2.76	2.76
North Queensfe	rry	04/05	SCT	SCT	2.28	2.28	2.4	2.39	1.52
North Road [Da	rlington]	99/00	LNE	LNE	2.22	2.22	2.22	2.22	2.22
North Sheen Sta		03/04	STH	Wessex	2.38	2.38	2.95	2.74	2.74
North Walsham		00/01	EA	Anglia	1.76	1.76	1.83	1.83	1.83
North Wembley	,	03/04	MID	LNW	2.07	2.07	2.07	2.16	2.16
North Woolwich		02/03	EA	Anglia	0.00	0.00	2.18	2.18	2.18
Northallerton		02/03	LNE	LNE	2.24	2.24	2.22	2.22	2.22
Northampton		03/04	MID	LNW	2.00	2.00	2.00	1.95	1.95
Northfield		01/02	MID	LNW	1.28	1.28	1.28	1.28	1.28
Northfleet Static	n	03/04	STH	Kent	2.73	2.73	2.73	3.05	3.05
Northolt Park			MID	LNW	2.29	2.29	2.29	2.29	2.29
Northumberland	l Park	02/03	EA	Anglia	1.69	1.69	1.99	1.99	1.99
Northwich		04/05	NW	LNW	2.41	2.41	2.41	2.41	2.21
Norton Bridge		04/05	NW	LNW	3.18	3.18	3.18	3.18	2.51
Norwich Thorpe	<u>;</u>	99/00	EA	Anglia	0.00	0.00	1.72	1.72	1.72
Norwood Junction	on	02/03	STH	Sussex	2.07	2.07	2.62	2.62	2.62
Nottingham		03/04	MID	LNE	2.30	2.30	2.30	2.03	2.03
Nuneaton		02/03	MID	LNW	1.79	1.79	1.66	1.66	1.66
Nunhead		02/03	STH	Kent	2.55	2.55	2.94	2.94	2.94
Nunthorpe		03/04	LNE	LNE	2.43	2.43	2.43	2.13	2.13
Nutbourne		04/05	STH	Sussex	2.62	2.62	2.62	2.62	2.55
Nutfield		04/05	STH	Kent	2.93	2.93	2.93	2.93	2.65
Oakengates		02/03	MID	LNW	1.81	1.81	1.91	1.91	1.91
Oakham		00/01	MID	LNE	2.03	2.03	2.03	2.03	2.03
Oakleigh Park		99/00	LNE	LNE	2.56	2.56	2.56	2.56	2.56
Oban		04/05	SCT	SCT	2.58	2.58	2.58	2.58	1.97
Ockendon		01/02	EA	Anglia	2.18	2.18	2.18	2.18	2.18
Ockley		01/02	STH	Sussex	2.43	2.43	2.43	2.43	2.43
Old Hill		04/05	MID	LNW	1.84	1.84	2.07	2.07	2.15
Old Roan		03/04	NW	LNW	2.16	2.16	2.16	1.00	1.00
Old Street		99/00	LNE	LNE	2.45	2.45	2.45	2.45	2.45
Oldfield Park			GW	Western	1.88	1.88	1.88	1.88	1.88
Oldham Mumps		01/02	NW	LNW	2.58	2.58	2.58	2.58	2.58
Station Name		Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of sta	tions and their gra							
	inclusion			Scores	Scores	Scores	Scores	Scores
Oldham Werneth	01/02	NW	LNW	2.74	2.74	2.74	2.74	2.74
Olton	01/02	MID	LNW	1.36	1.36	1.36	1.36	1.36
Ore	99/00	STH	Kent	2.70	2.70	2.70	2.70	2.70
Ormskirk	02/03	NW	LNW	2.04	2.04	2.10	2.10	2.10
Orpington	04/05	STH	Kent	2.49	2.49	2.49	2.49	2.23
Orrell	04/05	NW	LNW	2.47	2.47	2.47	2.47	2.18
Orrell Park	02/03	NW	LNW	2.13	2.13	2.07	2.07	2.07
Otford	04/05	STH	Kent	0.00				2.26
Oulton Broad North	03/04	EA	Anglia	2.71	2.71	2.71	2.43	2.43
Oulton Broad South	00/01	EA	Anglia	2.38	2.38	2.38	2.38	2.38
Outwood	02/03	LNE	LNE	1.60	1.60	2.27	2.27	2.27
Overpool	03/04	NW	LNW	2.11	2.11	2.11	2.00	2.00
Overton	03/04	STH	Wessex	2.13	2.13	2.21	2.01	2.01
Oxenholme	04/05	NW	LNW	2.69	2.69	2.69	2.69	2.17
Oxford	03/04	GW	Western	2.00	2.00	2.00	2.65	2.65
Oxshott	03/04	STH	Wessex	2.31	2.31	2.89	2.70	2.70
Oxted	03/04	STH	Sussex	2.49	2.49	2.49	2.95	2.95
Paddock Wood	04/05	STH	Kent	2.46	2.46	2.46	2.46	2.65
Padgate	03/04	NW	LNW	2.18	2.18	2.18	2.07	2.07
Paignton	03/04	GW	Western	2.99	2.99	2.99	2.60	2.60
Paisley Canal	04/05	SCT	SCT	1.98	1.98	1.96	1.96	1.11
Paisley Gilmour St	03/04	SCT	SCT	2.53	2.53	2.53	2.41	2.41
Paisley St James	01/02	SCT	SCT	2.33	2.33	2.33	2.33	2.33
Palmers Green	99/00	LNE	LNE	2.24	2.24	2.24	2.24	2.24
Pangbourne	02/03	GW	Western	2.30	2.30	2.72	2.72	2.72
Pannal		LNE	LNE	1.60	1.60	1.60	1.60	1.60
Pantyffynnon	03/04	GW	Western	3.44	3.44	3.44	2.92	2.92
Par	01/02	GW	Western	2.24	2.24	2.24	2.24	2.24
Parbold	01/02	NW	LNW	2.27	2.27	2.51	2.51	2.51
Park	04/05	SCT	SCT	0.00	0.00	0.0		1.00
Park Street	03/04	MID	LNW	1.73	1.73	1.73	2.07	2.07
Parkstone	04/05	STH	Wessex	2.54	2.54	2.54	2.54	2.97
Parson Street		GW	Western	2.30	2.30	2.30	2.30	2.30
Partick	03/04	SCT	SCT	2.22	2.22	2.16	2.22	2.22
Parton	04/05	NW	LNW	2.22	2.22	2.22	2.22	2.73
Patchway	03/04	GW	Western	3.20	3.20	2.19	2.06	2.06
Patricroft	04/05	NW	LNW	2.50	2.50	2.50	2.50	2.12
Patterton	02/03	SCT	SCT	1.92	2.23	2.05	2.05	2.05
Peartree	00/01	MID	LNE	2.15	2.15	2.15	2.15	2.15
Peckham Rye	04/05	STH	Kent	2.60	2.60	2.60	2.60	2.89
Pegswood	99/00	LNE	LNE	2.48	2.48	2.48	2.48	2.48
Pemberton	99/00	NW	LNW	2.30	2.30	2.30	2.30	2.30
Pembrey & Burry Port		GW	Western	1.70	1.70	1.70	1.70	1.70
Pembroke	03/04	GW	Western	2.97	2.97	2.97	2.00	2.00
Pembroke Dock		GW	Western	1.78	1.78	1.78	1.78	1.78
Penally		GW	Western	1.89	1.89	1.89	1.89	1.89
Penarth		GW	Western	1.96	1.96	1.96	1.96	1.96
Pencoed		GW	Western	2.22	2.22	2.22	2.22	2.22
Pengam Station	04/05	GW	Western	2.01	2.13	2.39	2.39	2.51
Penge East	01/02	STH	Kent	2.46	2.46	2.46	2.46	2.46
						2.65		
Penge West	02/03	STH	Sussex	2.14	2.14	165	2.65	2.65

Table List of s	tations and their gra	des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Penhelig	03/04	GW	Western	1.42	1.42	1.42	1.64	1.64
Penistone		LNE	LNE	1.30	1.30	1.30	1.30	1.30
Penkridge	02/03	NW	LNW	2.67	2.67	2.14	2.14	2.14
Penmaenmawr	02/03	NW	LNW	2.24	2.24	2.26	2.26	2.26
Penmere		GW	Western	2.23	2.23	2.23	2.23	2.23
Penrhiwceiber		GW	Western	2.10	2.10	2.10	2.10	2.10
Penrhyndeurdraeth	03/04	GW	Western	1.85	1.85	1.85	1.85	1.85
Penrith	03/04	NW	LNW	2.67	2.67	2.67	2.39	2.39
Penryn		GW	Western	2.00	2.00	2.00	2.00	2.00
Pensarn	03/04	GW	Western	1.31	1.31	1.31	1.94	1.94
Penshurst	02/03	STH	Kent	2.65	2.65	2.87	2.87	2.87
Pentrebach	04/05	GW	Western	2.43	2.43	2.43	2.43	2.55
Pen-Y-Bont		GW	Western	2.00	2.00	2.00	2.00	2.00
Penyfford	01/02	NW	LNW	1.96	1.96	1.96	1.96	1.96
Penzance	02/03	GW	Western	2.85	2.85	2.15	2.13	2.13
Perranwell		GW	Western	2.06	2.06	2.06	2.06	2.06
Perry Barr	01/02	MID	LNW	2.03	2.03	2.03	2.03	2.03
Pershore Station	04/05	GW	Western	2.30	2.30	2.30	2.30	2.27
Perth	01/02	SCT	SCT	2.69	2.69	2.69	2.69	2.69
Peterborough	99/00	LNE	LNE	2.22	2.22	2.22	2.22	2.22
Petersfield	99/00	STH	Wessex	2.15	2.15	2.15	2.15	2.15
Petts Wood	99/00	STH	Kent	2.46	2.46	2.46	2.46	2.46
Pevensey & Westham	99/00	STH	Sussex	2.41	2.41	2.41	2.41	2.41
Pevensey Bay	99/00	STH	Sussex	2.63	2.63	2.63	2.63	2.63
Pewsey	04/05	GW	Western	2.18	2.18	2.70	2.70	2.34
Pilning	03/04	GW	Western	3.62	3.62	2.30	2.87	2.87
Pinhoe	03/04	GW	Western	2.62	2.62	2.62	2.85	2.85
Pitlochry	01/02	SCT	SCT	2.54	2.54	2.54	2.54	2.54
	02/03	EA		0.00	0.00	2.16	2.16	2.16
Pitsea	03/04	NW	Anglia			2.60		2.16
Pleasington			LNW	2.60	2.60		2.04	
Plockton	01/02	SCT	SCT	2.13	2.13	2.13	2.13	2.13
Pluckley	02/03	STH	Kent	2.46	2.46	2.94	2.94	2.94
Plumley	03/04	NW	LNW	2.24	2.24	2.24	2.41	2.41
Plumpton	02/03	STH	Sussex	2.53	2.53	2.92	2.92	2.92
Plumstead	02/03	STH	Kent	2.00	2.00	2.06	2.06	2.06
Plymouth	02/03	GW	Western	2.58	2.58	2.07	2.07	2.07
Pokesdown	04/05	STH	Wessex	2.67	2.67	2.67	2.67	2.98
Polegate	02/03	STH	Sussex	2.47	2.47	3.08	3.08	3.08
Polesworth	02/03	MID	LNW	2.65	2.65	2.79	2.79	2.79
Pollokshaws East	02/03	SCT	SCT	2.49	2.49	2.29	2.29	2.29
Pollokshaws West	02/03	SCT	SCT	2.21	2.21	2.4	2.40	2.40
Pollokshields East	02/03	SCT	SCT	2.23	2.23	2.05	2.05	2.05
Pollokshields West	02/03	SCT	SCT	2.40	2.40	2.08	2.08	2.08
Polmont	04/05	SCT	SCT	2.15	2.15	2.2	2.22	1.46
Polsloe Bridge Station	04/05	GW	Western	4.00	4.00	4.00	4.00	2.19
Ponders End	02/03	EA	Anglia	2.10	2.10	2.15	2.15	2.15
Pontarddulais		GW	Western	2.00	2.00	2.00	2.00	2.00
Pontefract Baghill	03/04	LNE	LNE	3.00	3.00	3.00	2.35	2.35
Pontefract Monkhill	03/04	LNE	LNE	2.29	2.29	2.29	2.27	2.27
Pontefract Tanshelf	02/03	LNE	LNE	1.60	1.60	2.36	2.36	2.36
Pontlottyn Station	04/05	GW	Western	2.03	2.03	2.03	2.03	2.41
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of statio	ns and their gra	.des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Pontyclun		GW	Western	2.00	2.00	2.00	2.00	2.00
Pont-y-Pant	02/03	NW	LNW	2.22	2.22	2.24	2.24	2.24
Pontypool & New Inn		GW	Western	2.07	2.07	2.07	2.07	2.07
Pontypridd Station	04/05	GW	Western	2.33	2.33	2.79	2.79	2.72
Poole	01/02	STH	Wessex	2.44	2.44	2.44	2.44	2.44
Poppleton		LNE	LNE	1.70	1.70	1.70	1.70	1.70
Port Glasgow	01/02	SCT	SCT	1.47	1.47	1.47	1.47	1.47
Port Sunlight	01/02	NW	LNW	2.14	2.14	2.14	2.14	2.14
Port Talbot Parkway		GW	Western	2.09	2.09	2.09	2.09	2.09
Portchester	99/00	STH	Wessex	2.58	2.58	2.58	2.58	2.58
Porth		GW	Western	2.16	2.16	2.16	2.16	2.16
Porthmadog	03/04	GW	Western	1.23	1.23	1.23	2.02	2.02
Portlethen	04/05	SCT	SCT	2.17	2.17	2.3	2.25	1.27
Portslade	01/02	STH	Sussex	2.36	2.36	2.36	2.36	2.36
Portsmouth & Southsea	99/00	STH	Wessex	2.50	2.50	2.50	2.50	2.50
Portsmouth Arms	03/04	GW	Western	3.10	3.10	3.10	2.49	2.49
Portsmouth Harbour		STH	Wessex					0.00
Possilpark & Parkhouse	04/05	SCT	SCT	2.14	2.14	2.06	2.06	2.00
Potters Bar	99/00	LNE	LNE	2.50	2.50	2.50	2.50	2.50
Poulton-Le-Fylde	02/03	NW	LNW	2.63	2.63	2.32	2.32	2.32
Poynton	02/03	NW	LNW	2.25	2.25	2.24	2.24	2.24
Prees	03/04	GW	Western	1.84	1.84	1.84	2.13	2.13
Prescot	01/02	NW	LNW	3.13	3.13	3.13	3.13	3.13
Prestatyn	01/02	NW	LNW	2.96	2.96	2.96	2.96	2.96
Prestbury	02/03	NW	LNW	2.35	2.35	2.29	2.29	2.29
Preston	04/05	NW	LNW	2.43	2.43	2.43	2.43	2.44
Preston Park	02/03	STH	Sussex	2.38	2.38	3.28	3.28	3.28
Prestonpans	04/05	SCT	SCT	2.17	2.17	2.17	2.17	1.21
Prestwick Town	03/04	SCT	SCT	1.99	1.99	1.99	2.14	2.14
Priesthill & Darnley	03/04	SCT	SCT	2.24	2.24	2.24	2.00	2.00
Princes Risborough		MID	LNW	1.77	1.77	1.77	1.77	1.77
Prittlewell	00/01	EA	Anglia	2.09	2.09	2.09	2.09	2.09
Prudhoe	03/04	LNE	LNE	2.71	2.71	2.71	2.20	2.20
Pulborough	03/04	STH	Sussex	2.48	2.48	2.48	2.98	2.98
Purfleet		EA	Anglia	2.00	2.00	2.00	2.00	2.00
Purley	01/02	STH	Sussex	2.54	2.54	2.54	2.54	2.54
Purley Oaks	99/00	STH	Sussex	2.23	2.23	2.23	2.23	2.23
Putney	01/02	STH	Wessex	2.30	2.30	2.30	2.30	2.30
Pwllheli		GW	Western	1.80	1.80	1.80	1.80	1.80
Pyle		GW	Western	2.00	2.00	2.00	2.00	2.00
Quakers Yard	04/05	GW	Western	2.77	2.77	2.77	2.77	2.14
Queen St High Level	03/04	SCT	SCT	2.48	2.48	2.48	2.50	2.50
Queen St Low Level	03/04	SCT	SCT	2.20	2.20	2.24	2.16	2.16
Queenborough	99/00	STH	Kent	2.72	2.72	2.72	2.72	2.72
Queens Park	04/05	MID	LNW	1.80	1.80	1.80	1.80	2.20
Queens Park (Glasgow)	02/03	SCT	SCT	2.32	2.32	2.09	2.09	2.09
Queens Rd, Peckham	03/04	STH	Sussex	2.37	2.37	2.37	2.41	2.41
Queens Town Road	01/02	STH	Wessex	2.51	2.51	2.51	2.51	2.51
Quintel Downs Station	04/05	GW	Western	2.00	2.00	2.00	2.00	2.27
Radcliffe (Nottinghamshire)	02/03	MID	LNE	1.38	1.38	2.13	2.13	2.13
Radlett	00/01	MID	LNE	2.13	2.13	2.13	2.13	2.13
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of sta	tions and their gra	ons and their grades						
	inclusion			Scores	Scores	Scores	Scores	Scores
Radley	03/04	GW	Western	2.13	2.13	2.13	2.51	2.51
Radyr		GW	Western	2.82	2.82	2.82	2.82	2.82
Rainford	02/03	NW	LNW	2.79	2.79	2.58	2.58	2.58
Rainham (Kent)	04/05	STH	Kent	2.38	2.38	2.38	2.38	2.04
Rainham [Essex]		EA	Anglia	2.00	2.00	2.00	2.00	2.00
Rainhill	01/02	NW	LNW	2.27	2.27	2.27	2.27	2.27
Ramgrave & Wiltshire	03/04	NW	LNW	1.43	1.43	1.43	2.05	2.05
Ramsgate	01/02	STH	Kent	2.80	2.80	2.80	2.80	2.80
Rannoch	04/05	SCT	SCT	2.45	2.45	2.45	2.45	1.31
Rauceby	02/03	LNE	LNE	2.59	2.59	2.74	2.74	2.74
Ravenglass for Eskdale	02/03	NW	LNW	2.25	2.25	2.46	2.46	2.46
Ravensbourne	03/04	STH	Kent	2.58	2.58	2.58	2.77	2.77
Ravensthorpe	03/04	LNE	LNE	2.90	2.90	2.90	2.49	2.49
Rawcliffe	03/04	LNE	LNE	2.40	2.40	2.40	2.60	2.60
Rayleigh	01/02	EA	Anglia	2.23	2.23	2.27	2.27	2.27
Raynes Park		STH	Wessex	2.26	2.26	2.26	2.26	2.26
Reading	02/03	GW	Western	2.51	2.51	2.56	2.56	2.56
Reading West	03/04	GW	Western	2.20	2.20	2.20	2.66	2.66
Rectory Road	02/03	EA	Anglia	2.10	2.10	2.32	2.32	2.32
Redbridge	04/05	STH	Wessex	2.60	2.60	2.60	2.60	2.92
Redcar Central	03/04	LNE	LNE	2.06	2.06	2.06	2.11	2.11
Redcar East	03/04	LNE	LNE	2.43	2.43	2.43	2.43	2.43
Reddish North	02/03	NW	LNW	2.11	2.11	2.18	2.18	2.13
Reddish South	01/02	NW	LNW	3.88	3.88	3.88	3.88	3.88
Redditch	01/02	MID	LNW	1.66	1.66	1.66	1.66	1.66
Redhill	01/02	STH	Sussex	2.51	2.51	2.51	2.51	2.51
Redland	03/04	GW	Western	2.20	2.20	2.25	1.92	1.92
Redruth	01/02	GW	Western	2.22	2.22	2.22	2.18	2.18
Reedham	03/04	EA		2.50	1.99	2.53	2.16	2.16
	99/00		Anglia					
Reedham [Surrey]		STH	Sussex	2.53	2.53	2.53	2.53	2.53
Reigate	01/02	STH	Wessex	2.68	2.68	2.68	2.68	2.68
Renton	03/04	SCT	SCT	2.03		2.00	2.03	2.03
Retford	99/00	LNE	LNE	2.37	2.37	2.37	2.37	2.37
Rhiwbina	01/02	GW	Western	2.03	2.03	2.03	2.03	2.03
Rhosneigr	01/02	NW	LNW	2.34	2.34	2.34	2.34	2.34
Rhyl	02/03	NW	LNW	2.19	2.19	1.92	1.92	1.92
Rhymney Station	04/05	GW	Western	2.94	2.94	2.94	2.94	2.52
Ribblehead	01/02	NW	LNW	2.00	2.00	2.00	2.00	2.00
Rice Lane	02/03	NW	LNW	2.14	2.14	2.04	2.04	2.04
Richmond	03/04	STH	Wessex	2.49	2.49	2.77	2.77	2.77
Riddlesdown	04/05	STH	Sussex	2.47	2.47	2.47	2.47	2.25
Ridgmont	00/01	MID	LNE	1.99	1.99	1.99	1.99	1.99
Riding Mill	03/04	LNE	LNE	2.41	2.41	2.41	2.15	2.15
Rishton	03/04	NW	LNW	2.99	2.99	2.99	2.38	2.38
Robertsbridge	02/03	STH	Kent	2.46	2.46	3.21	3.21	3.21
Roby	03/04	NW	LNW	2.28	2.28	2.28	2.03	2.03
Rochdale	99/00	NW	LNW	2.26	2.26	2.26	2.26	2.26
Roche	04/05	GW	Western	2.00	2.00	2.00	2.00	2.63
Rochester	04/05	STH	Kent	2.58	2.58	2.58	2.58	2.42
Rochford	02/03	EA	Anglia			1.71	1.71	1.71
Rock Ferry	04/05	NW	LNW	2.24	2.24	2.24	2.24	2.07
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of sta	ations and their gra	des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Rogart	01/02	SCT	SCT	2.23	2.23	2.23	2.23	2.23
Rolleston	03/04	MID	LNE	1.28	1.28	1.28	1.96	1.96
Roman Bridge	02/03	NW	LNW	2.27	2.27	2.21	2.21	2.21
Romford	01/02	EA	Anglia	2.01	2.01	2.04	2.04	2.04
Romiley	04/05	NW	LNW	2.43	2.43	2.43	2.43	2.16
Romsey	04/05	STH	Wessex	2.07	2.07	2.07	2.07	2.55
Roose	01/02	NW	LNW	2.99	2.99	2.99	2.99	2.99
Rose Grove		NW	LNW	2.40	2.40	2.40	2.40	2.40
Rose Hill (Marple)	03/04	NW	LNW	1.92	1.92	1.92	2.00	2.00
Rosyth Halt	04/05	SCT	SCT	2.12	2.12	2.2	2.20	1.17
Rotherham Central	02/03	LNE	LNE	2.14	2.14	2.12	2.12	2.12
Roughton Road	03/04	EA	Anglia	2.11	2.11	2.11	2.11	2.11
Rowlands Castle		STH	Wessex	1.92	1.92	1.92	1.92	1.92
Rowley Regis	04/05	MID	LNW	1.57	1.57	2.28	2.28	2.24
Roy Bridge	04/05	SCT	SCT	2.16	2.16	2.16	2.16	1.25
Roydon	00/01	EA	Anglia	2.20	2.20	2.20	2.20	2.20
Royston	99/00	LNE	LNE	2.24	2.24	2.24	2.24	2.24
Ruabon	99/00	GW	Western	2.36	2.36	2.36	1.98	1.98
Rufford	03/04	NW	LNW	2.09	2.09	2.09	2.17	2.17
Rugby		MID	LNW	2.83	2.83	2.83	2.83	2.83
Rugeley	03/04	MID	LNW	1.06	1.06	1.06	1.27	1.27
Rugeley Trent Valley		NW	LNW	1.99	1.99	1.99	1.99	1.99
Runcorn	01/02	NW	LNW	2.06	2.06	2.06	2.06	2.06
Runcorn East	02/03	NW	LNW	2.33	2.33	2.13	2.13	2.13
Ruskington	03/04	LNE	LNE	1.81	1.81	1.81	2.16	2.16
Ruswarp	00/01	LNE	LNE	2.31	2.31	2.31	2.31	2.31
Rutherglen	02/03	SCT	SCT	2.28	2.28	2.30	2.30	2.30
Ryde Esplanade	02/03	STH	Wessex	2.34	2.34	2.34	2.34	2.34
Ryde Pier Head		STH	Wessex	2.18	2.18	2.18	2.18	2.18
Ryde St. Johns		STH	Wessex	2.48	2.48	2.48	2.48	2.48
Ryder Brow	01/02	NW	LNW	2.75	2.75	2.75	2.75	2.75
Rye	99/00	STH	Kent	2.62	2.62	2.62	2.62	2.62
Rye House	02/03	EA	Anglia	2.50	2.50	2.31	2.31	2.31
Salford Central	02/03	NW	LNW	0.00	2.50	2.09	2.09	2.09
Salford Crescent	02/03	NW	LNW	1.91	1.91	2.00	2.00	2.00
Salfords	03/04	STH	Sussex	2.56	2.56	2.56	3.04	3.04
Salhouse	00/01	EA	Anglia	2.37	2.37	2.37	2.37	2.37
Salisbury	99/00	STH	Wessex	2.00	2.00	2.00	2.00	2.00
Saltaire	02/03	LNE	LNE	2.14	2.14	1.98	1.98	1.98
Saltash	02/03	GW	Western	2.16	2.16	2.16	2.16	2.16
Saltburn	03/04	LNE	LNE	2.43	2.43	2.43	2.61	2.61
Saltcoats	03/04	SCT	SCT	2.14	2.14	2.14	2.22	2.22
	03/04	LNE	LNE	2.14			2.25	
Saltmarshe					2.06	2.06		2.25
Salwick	03/04	NW	LNW	2.70	2.70	2.70	2.38	2.38
Sandal & Agbrigg	04/05	LNE	LNE	1.30	1.30	1.30	1.30	1.30
Sandbach	04/05	NW	LNW	2.92	2.92	2.92	2.92	2.36
Sanderstead		STH	Sussex	2.49	2.49	2.49	2.49	2.13
Sandhurst	04/05	STH	Wessex	2.49	2.49	2.49	2.49	2.81
Sandling	99/00	STH	Kent	2.43	2.43	2.43	2.43	2.43
Sandown	99/00	STH	Wessex	2.73	2.73	2.73	2.73	2.73
Sandplace Halt	03/04	GW	Western	2.03	2.03	2.03	1.62	1.62
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of	of stations and their grac							
	inclusion			Scores	Scores	Scores	Scores	Scores
Sandwell & Dudley	01/02	MID	LNW	1.05	1.05	1.05	1.05	1.05
Sandwich	02/03	STH	Kent	2.88	2.88	2.98	2.98	2.98
Sandy	99/00	LNE	LNE	2.42	2.42	2.42	2.42	2.42
Sankey	04/05	NW	LNW	2.21	2.21	2.21	2.21	2.66
Sanguhar	03/04	SCT	SCT	2.00	2.00	2.04	1.96	1.96
Sarn		GW	Western	2.00	2.00	2.00	2.00	2.00
Saundersfoot		GW	Western	2.00	2.00	2.00	2.00	2.00
Saunderton		MID	LNW	2.29	2.29	2.29	2.29	2.29
Sawbridgeworth	04/05	EA	Anglia	2.13	2.13	2.13	2.13	2.12
Saxilby	00/01	LNE	LNE	1.38	1.38	1.38	1.38	1.38
Saxmundham	03/04	EA	Anglia	2.23	2.23	2.23	2.16	2.16
Scarborough	03/04	LNE	LNE	2.73	2.73	2.73	2.72	2.72
Scotscalder	01/02	SCT	SCT	2.25	2.25	2.25	2.25	2.25
Scotstounhill	03/04	SCT	SCT	2.12	2.12	2.15	2.20	2.20
Scunthorpe	99/00	LNE	LNE	2.32	2.32	2.32	2.32	2.32
Sea Mills	03/04	GW	Western	2.08	2.08	2.29	2.89	2.89
Seaburn	99/00	LNE	LNE	1.96	1.96	1.96	1.96	1.96
Seaford	02/03	STH	Sussex	2.47	2.47	3.19	3.19	3.19
Seaforth & Litherland	02/03	NW	LNW	2.62	2.62	1.84	1.84	1.84
Seaham	03/04	LNE	LNE	2.18	2.18	2.18	2.25	2.25
Seamer	02/03	LNE	LNE	2.10	2.01	2.07	2.23	2.23
Seascale	02/03	NW	LNW	3.30	3.30	2.07	2.07	2.07
Seaton Carew	02/03	LNE	LNE	2.43			2.03	2.36
	02/03				2.43	2.36		
Seer Green	02/04	MID	LNW	2.35	2.35	2.35	2.35	2.35
Selby	03/04	LNE	LNE	2.15	2.15	2.15	2.33	2.33
Selhurst	99/00	STH	Sussex	2.60	2.60	2.60	2.60	2.60
Sellafield	02/03	NW	LNW	3.08	3.08	1.95	1.95	1.95
Selling	00/01	STH	Kent	2.50	2.50	2.50	2.50	2.50
Selly Oak	01/02	MID	LNW	1.42	1.42	1.42	1.42	1.42
Settle	02/03	NW	LNW	2.23	2.23	2.01	2.01	2.01
Seven Kings	03/04	EA	Anglia	2.02	2.02	2.02	2.52	2.52
Seven Sisters	04/05	EA	Anglia	2.34	2.34	2.47	2.47	1.99
Sevenoaks	04/05	STH	Kent	2.41	2.41	2.41	2.41	2.34
Severn Beach	03/04	GW	Western	2.08	2.08	2.08	1.78	1.78
Severn Tunnel Junction		GW	Western	2.68	2.68	2.68	2.68	2.68
Shalford	01/02	STH	Wessex	2.65	2.65	2.65	2.65	2.65
Shanklin	99/00	STH	Wessex	2.44	2.44	2.44	2.44	2.44
Shaw & Crompton	99/00	NW	LNW	2.23	2.23	2.23	2.23	2.23
Shawford	99/00	STH	Wessex	2.22	2.22	2.22	2.22	2.22
Shawlands	02/03	SCT	SCT	2.65	2.65	2.39	2.39	2.39
Sheerness-On-Sea	02/03	STH	Kent	2.58	2.58	2.38	2.38	2.38
Sheffield	02/03	LNE	LNE	2.11	2.11	2.64	2.64	2.64
Shelford	01/02	EA	Anglia	1.88	1.88	1.88	1.88	1.88
Shenfield	00/01	EA	Anglia	2.33	2.33	2.33	2.33	2.33
Shenstone	03/04	MID	LNW	1.77	1.77	1.77	1.92	1.92
Shepherdswell	01/02	STH	Kent	3.05	3.05	3.05	3.05	3.05
Shepley	99/00	LNE	LNE	2.19	2.19	2.19	2.19	2.19
Shepperton	99/00	STH	Wessex	2.15	2.15	2.15	2.15	2.15
Shepreth	02/03	EA	Anglia			2.13	2.13	2.13
Sherborne	99/00	STH	Wessex	1.98	1.98	1.98	1.98	1.98
Sherburn-in-Elmet	02/03	LNE	LNE	2.08	2.08	2.65	2.65	2.65
Station Name	Year of	Zone		2.00	2.00	2.00	2.00	04/05

Table List of statio	ns and their grades							
	inclusion			Scores	Scores	Scores	Scores	Scores
Sheringham	03/04	EA	Anglia	3.00	3.00	3.00	2.39	2.39
Shettleston	03/04	SCT	SCT	2.14	2.14	2.28	2.23	2.23
Shieldmuir	02/03	SCT	SCT	2.17	2.17	2.05	2.05	2.05
Shifnal	04/05	MID	LNW	2.81	2.81	2.81	2.30	2.03
Shildon	00/01	LNE	LNE	2.20	2.20	2.20	2.20	2.20
Shiplake Station	04/05	GW	Western	2.03	2.03	2.03	2.03	2.49
Shipley	02/03	LNE	LNE	2.03	2.03	1.63	1.63	1.63
Shippea Hill	00/01	EA	Anglia	2.34	2.34	2.34	2.34	2.34
Shipton	03/04	GW	Western	2.43	2.43	2.43	1.96	1.96
Shirebrook	02/03	LNE	LNE	1.90	1.90	1.93	1.93	1.93
Shirehampton	03/04	GW	Western	1.34	1.34	1.83	1.68	1.68
Shireoaks	03/04	LNE	LNE	2.89	2.89	2.89	1.80	1.80
Shirley		MID	LNW	2.08	2.08	2.08	2.08	2.08
Shoeburyness	00/01	EA	Anglia	2.16	2.16	2.16	2.16	2.16
Sholing	04/05	STH	Wessex	2.54	2.54	2.54	2.54	2.62
Shoreham (Kent)	02/03	STH	Kent	2.00	2.00	2.73	2.73	2.73
Shoreham By Sea	01/02	STH	Sussex	2.51	2.51	2.51	2.51	2.51
Shortlands	03/04	STH	Kent	2.40	2.40	2.40	2.86	2.86
Shotton [High Level]		NW	LNW	2.30	2.30	2.30	2.30	2.30
Shotton [Low Level]	99/00	NW	LNW	2.57	2.57	2.57	2.57	2.57
Shotts	01/02	SCT	SCT	2.24	2.24	2.24	2.24	2.24
Shrewsbury	03/04	GW	Western	2.06	2.06	2.06	2.11	2.11
Sidcup	04/05	STH	Kent	2.26	2.26	2.26	2.26	2.29
Sileby	03/04	MID	LNE	1.73	1.73	1.73	1.81	1.81
Silecroft	04/05	NW	LNW	2.03	2.03	2.03	2.03	1.98
Silkstone Common	03/04	LNE	LNE	1.70	1.70	1.70	1.79	1.79
Silver Street	04/05	EA	Anglia	1.70	1.30	1.30	1.30	1.34
Silverdale	01/02	NW	LNW	3.01	3.01	3.01	3.01	3.01
	01/02	EA		1.96	1.96	1.96	1.96	1.96
Silvertown and City Airport	03/04		Anglia	2.08		2.14		
Singer		SCT	SCT		2.08		2.25	2.25
Sittingbourne	04/05	STH	Kent	2.44	2.44	2.44	2.44	2.37
Skegness	00/01	LNE	LNE	1.67	1.67	1.67	1.67	1.67
Skewen		GW	Western	2.19	2.19	2.19	2.19	2.19
Skipton	00/00	LNE	LNE	2.10	2.10	2.10	2.10	2.10
Slade Green	98/99	STH	Kent	2.49	2.49	2.49	2.49	2.49
Slaithwaite	02/03	LNE	LNE	2.80	2.80	2.07	2.07	2.07
Slateford	02/03	SCT	SCT	2.37	2.37	2.4	2.40	2.40
Sleaford	01/02	LNE	LNE	2.55	2.55	2.55	2.55	2.55
Sleights	99/00	LNE	LNE	2.89	2.89	2.89	2.89	2.89
Slough	02/03	GW	Western	2.10	2.10	2.59	2.59	2.59
Small Heath	04/05	MID	LNW	2.28	2.28	2.28	2.28	2.48
Smallbrook Junction		STH	Wessex	2.38	2.38	2.38	2.38	2.38
Smethwick , Rolfe Street	01/02	MID	LNW	1.15	1.15	1.15	1.15	1.15
Smethwick Galton Bridge	03/04	MID	LNW	1.15	1.15	1.15	1.11	1.11
Smitham	99/00	STH	Sussex	2.50	2.50	2.50	2.50	2.50
Smithy Bridge	01/02	NW	LNW	2.68	2.68	2.68	2.68	2.68
Snaith	00/01	LNE	LNE	2.33	2.33	2.33	2.33	2.33
Snodland	03/04	STH	Kent	2.24	2.24	2.24	2.60	2.60
Snowdown	04/05	STH	Sussex	2.95	2.95	2.93	2.93	2.40
Sole Street	99/00	STH	Sussex	2.44	2.44	2.44	2.44	2.44
Solihull	01/02	MID	LNW	2.01	2.01	2.02	2.02	2.02
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of	of stations and their grad	des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Somerleyton	03/04	EA	Anglia	3.72	3.72	3.72	3.14	3.14
South Acton	02/03	EA	Anglia	2.00	2.00	1.86	1.86	1.86
South Bank	03/04	LNE	LNE	2.67	2.67	2.67	2.85	2.85
South Bermondsey	02/03	STH	Sussex	2.02	2.02	2.49	2.49	2.49
South Croydon	01/02	STH	Sussex	2.09	2.09	2.09	2.09	2.09
South Elmsall	03/04	LNE	LNE	1.80	1.80	1.80	2.28	2.28
South Greenford	04/05	GW	Western	2.27	2.27	2.27	2.27	2.41
South Gyle	04/05	SCT	SCT	2.42	2.42	2.6	2.59	1.54
South Hampstead	03/04	MID	LNW	1.73	1.73	1.73	1.93	1.93
South Kenton	04/05	MID	LNW	1.79	1.79	1.79	1.79	2.42
South Merton	03/04	STH	Sussex	2.16	2.16	2.16	2.79	2.79
South Milford	03/04	LNE	LNE	1.70	1.70	1.70	2.25	2.25
South Ruislip		MID	LNW	2.00	2.00	2.00	2.00	2.00
South Tottenham		EA	Anglia	1.50	1.50	1.50	1.50	1.50
South Wigston	00/01	MID	LNE	3.03	3.03	3.03	3.03	3.03
Southall	02/03	GW	Western	1.94	2.24	2.28	2.28	2.28
Southampton Central	01/02	STH	Wessex	2.05	2.05	2.05	2.05	2.05
Southampton Parkway	04/05	STH	Wessex	2.07	2.07	2.07	2.07	2.22
Southbourne	04/05	STH	Sussex	2.37	2.37	2.37	2.37	2.58
Southbury	03/04	EA	Anglia	2.00	2.00	2.00	2.04	2.04
Southease	04/05	STH	Sussex	2.58	2.58	2.58	2.58	2.94
Southend Central	02/03	EA		0.00	0.00	2.27	2.27	2.27
SOUTHEND EAST	03/04	EA EA	Anglia	1.99	1.99	1.99	2.27	2.01
	U3/U <del>1</del>	EA EA	Anglia			2.04	2.01	2.01
Southend Victoria			Anglia	2.04	2.04			
Southminster	04/05	EA	Anglia	1.78	1.78	1.78	1.78	1.78
Southport	04/05	NW	LNW	2.16	2.16	2.16	2.16	2.19
Southwick	01/02	STH	Sussex	2.61	2.61	2.61	2.61	2.61
Sowerby Bridge	03/04	LNE	LNE	3.09	3.09	3.09	2.14	2.14
Spalding	00/01	LNE	LNE	1.44	1.44	1.47	1.47	1.47
Spean Bridge	04/05	SCT	SCT	2.41	2.41	2.41	2.41	1.12
Spital	03/04	NW	LNW	2.06	2.06	2.06	2.07	2.07
Spondon	03/04	MID	LNE	1.39	1.39	1.47	1.46	1.46
Spooner Row	03/04	EA	Anglia	2.60	2.60	2.60	2.89	2.89
Spring Road		MID	LNW	2.58	2.58	2.58	2.58	2.58
Springburn	03/04	SCT	SCT	2.37	2.37	2.32	2.39	2.39
Springfield	04/05	SCT	SCT	2.55	2.55	2.4	2.42	1.46
Squires Gate	03/04	NW	LNW	2.50	2.50	2.50	1.93	1.93
St Albans	02/03	MID	LNE	2.08	2.08	2.06	2.06	2.06
St Albans Abbey	03/04	MID	LNW	1.96	1.96	1.96	2.30	2.30
St Andrews Road	03/04	GW	Western	1.67	1.67	1.67	1.74	1.74
St Annes On Sea	01/02	NW	LNW	2.04	2.04	2.04	2.04	2.04
St Austell	01/02	GW	Western	2.00	2.00	2.00	2.00	2.00
St Bees	04/05	NW	LNW	3.28	3.28	3.28	3.28	2.59
St Budeaux F R	01/02	GW	Western	2.53	2.53	2.53	1.96	1.96
St Budeaux Victoria Ro	ad	GW	Western	2.14	2.14	2.14	2.14	2.14
St Columb Road	04/05	GW	Western	2.20	2.20	2.20	2.20	2.07
St Erth	02/03	GW	Western	2.30	2.30	2.57	2.57	2.57
St Germans	01/02	GW	Western	2.57	2.57	2.57	2.57	2.57
St Helens Central	02/03	NW	LNW	2.21	2.21	2.14	2.14	2.14
St Helens Junction	02/03	NW	LNW	2.05	2.05	2.12	2.12	2.12
St Helier	03/04	STH	Sussex	2.08	2.08	2.08	2.79	2.79
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of station	ns and their gra	acs				_		
	inclusion			Scores	Scores	Scores	Scores	Score
St Ives	04/05	GW	Western	2.00	2.00	2.00	2.00	1.95
St James Park	04/05	GW	Western	1.90	1.90	1.90	1.90	1.90
St Johns	02/03	STH	Kent	2.46	2.46	3.01	3.01	3.01
St Keyne	03/04	GW	Western	2.00	2.00	2.00	1.93	1.93
St Leonards Warrior Square	02/03	STH	Sussex	2.20	2.20	2.62	2.62	2.62
St Margarets	03/04	STH	Wessex	2.19	2.19	2.42	2.42	2.42
St Margarets (Hertfordshire)	02/03	EA	Anglia	1.90	1.90	2.00	2.00	2.00
St Mary Cray	01/02	STH	Kent	2.52	2.52	2.52	2.52	2.52
St Michaels	02/03	NW	LNW	2.41	2.41	2.12	2.12	2.12
St Neots	99/00	LNE	LNE	2.07	2.07	2.07	2.07	2.07
St. Denys	04/05	STH	Wessex	2.46	2.46	2.46	2.46	2.99
St. James Street								
(Walthamstow)	03/04	EA	Anglia	2.99	2.99	2.99	2.68	2.68
Stafford		NW	LNW	2.23	2.23	2.23	2.23	2.23
Staines	03/04	STH	Wessex	2.23	2.23	2.54	2.54	2.54
Stallingborough	03/04	LNE	LNE	2.56	2.56	2.56	2.57	2.57
Stalybridge	01/02	NW	LNW	2.45	2.45	2.45	2.45	2.45
Stamford	00/01	MID	LNE	2.59	2.59	2.59	2.59	2.59
Stamford Hill	02/03	EA	Anglia	1.91	1.91	2.82	2.82	2.82
Stanford-Le-Hope		EA	Anglia	1.94	1.94	1.94	1.94	1.94
Stanlow And Thornton	01/02	NW	LNW	2.44	2.44	2.44	2.44	2.44
Stanstead Mountfichet	01/02	EA	Anglia	1.34	1.34	1.38	1.38	1.38
Stansted Airport	02/03	EA	Anglia	2.27	2.27	2.27	2.27	2.27
Staplehurst Staplehurst	02/03	STH	Kent	2.41	2.41	2.60	2.60	2.60
Stapleton Road	03/04	GW	Western	2.40	2.40	2.30	2.10	2.10
Starbeck	03/04	LNE	LNE	2.80	2.80	2.80	2.44	2.44
Starcross	01/02	GW	Western	2.36	2.36	2.36	2.36	2.36
Stavely	01/02	NW	LNW	2.05	2.05	2.05	2.05	2.05
Stechford	01/02	MID	LNW	2.03	2.18	2.03	2.03	2.03
Steeton & Silsden	02/03	LNE	LNE	2.10	2.10	2.50	2.50	2.50
Stepps	01/02	SCT	SCT	2.05	2.05	2.05	2.05	2.05
Stevenage	99/00	LNE	LNE	2.52	2.52	2.52	2.52	2.52
Stevenston	03/04	SCT	SCT	2.22	2.22	2.22	2.09	2.09
Stewartby	02/03	MID	LNE	1.90	1.90	2.40	2.40	2.40
Stewarton	03/04	SCT	SCT	2.38	2.38	2.39	2.37	2.37
Stirling		SCT	SCT	3.00	3.00	3.00	3.00	3.00
Stockport	04/05	NW	LNW	2.12	2.12	2.12	2.12	2.09
Stocksfield	99/00	LNE	LNE	2.13	2.13	2.13	2.13	2.13
Stocksmoor	99/00	LNE	LNE	2.57	2.57	2.57	2.57	2.57
Stockton	03/04	LNE	LNE	2.38	2.38	2.38	2.42	2.42
Stoke Manderville	02/03	MID	LNW	2.11	2.11	1.77	1.77	1.77
Stoke Newington	02/03	EA	Anglia	1.69	1.69	2.36	2.36	2.36
Stoke-on-Trent		NW	LNW	1.96	1.96	1.96	1.96	1.96
Stone		NW	LNW	1.56	1.56	1.56	1.56	1.56
Stone Crossing	03/04	STH	Kent	2.34	2.34	2.34	2.78	2.78
Stonebridge Park		MID	LNW	1.53	1.53	1.53	1.53	1.53
Stonegate	04/05	STH	Kent	2.32	2.32	2.95	2.95	2.55
Stonehaven	04/05	SCT	SCT	1.68	1.68	1.68	1.68	1.17
Stonehouse	01/02	GW	Western	2.50	2.50	2.50	2.50	2.50
Stoneleigh	98/99	STH	Wessex	2.83	2.83	2.83	2.83	2.83
Stourbridge Junction	03/04	MID	LNW	1.67	1.67	1.67	1.86	1.86
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of sta	ations and their gra	des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Stourbridge Town	04/05	MID	LNW	1.22	1.22	1.22	1.22	1.99
Stowmarket	00/01	EA	Anglia	2.03	2.03	2.03	2.03	2.03
Stranraer Harbour	03/04	SCT	SCT	2.26	2.26	2.26	2.40	2.40
Stratford (London)	02/03	EA	Anglia	2.35	2.35	2.34	2.34	2.34
Stratford-upon-Avon	02/03	MID	LNW	2.83	2.83	2.57	2.57	2.57
Strathcarron	01/02	SCT	SCT	2.27	2.27	2.27	2.27	2.27
Strawberry Hill	01/02	STH	Wessex	2.62	2.62	2.62	2.62	2.62
Streatham	03/04	STH	Sussex	2.45	2.45	2.45	2.85	2.85
Streatham Common	04/05	STH	Sussex	2.07	2.07	2.07	2.07	2.33
Streatham Hill	04/05	STH	Sussex	2.13	2.13	2.13	2.13	2.47
Streethouse	03/04	LNE	LNE	1.50	1.50	1.50	1.53	1.53
Strines	03/04	NW	LNW	3.00	3.00	2.93	2.11	2.11
Stromeferry	01/02	SCT	SCT	2.18	2.18	2.18	2.18	2.18
Strood	04/05	STH	Kent	2.61	2.61	2.61	2.61	2.22
Stroud	01/02	GW	Western	2.19	2.19	2.19	2.19	2.19
Sturry	99/00	STH	Kent	2.53	2.53	2.53	2.53	2.53
Styal	01/02	NW	LNW	2.89	2.89	2.89	2.89	2.89
Sudbury & Harrow Rd	04/05	MID	LNW	2.31	2.31	2.31	2.31	2.43
Sudbury [Suffolk]	00/01	EA	Anglia	1.50	1.50	1.55	1.55	1.55
Sudbury Hill Harrow	00/01	MID	LNW	2.12	2.12	2.12	2.12	2.12
Sugar Loaf Halt		GW	Western	2.63	2.63	2.63	2.63	2.63
Summerston	04/05	SCT	SCT	2.31	2.31	2.03	2.03	2.00
	99/00	STH	Wessex	2.72	2.72	2.72	2.72	2.72
Sunbury Sunderland	99/00	LNE	LNE	2.72	2.72	2.72	2.72	2.72
	04/05		Kent					
Sundridge Park		STH		2.44	2.44	2.44	2.44	2.96
Sunningdale	04/05	STH	Wessex	2.53	2.53	2.53	2.53	2.77
Sunnymeads	03/04	STH	Wessex	3.19	3.19	3.01	3.02	3.02
Surbiton	98/99	STH	Wessex	2.45	2.45	2.45	2.45	2.45
Sutton	01/02	STH	Sussex	2.59	2.59	2.59	2.59	2.59
Sutton Coldfield	04/05	MID	LNW	2.04	2.04	2.04	2.04	2.10
Sutton Common	04/05	STH	Sussex	2.11	2.11	2.11	2.11	2.21
Sutton Parkway	03/04	MID	LNE	1.20	1.20	1.20	1.55	1.55
Swale	02/03	STH	Kent	2.41	2.41	2.65	2.65	2.65
Swanley	99/00	STH	Kent	2.57	2.57	2.57	2.57	2.57
Swanscombe Station	03/04	STH	Kent	2.33	2.33	2.25	2.73	2.73
Swansea Station	04/05	GW	Western	2.37	2.37	2.61	2.61	2.32
Swanwick	99/00	STH	Wessex	2.00	2.00	2.00	2.00	2.00
Sway	99/00	STH	Wessex	2.45	2.45	2.45	2.45	2.45
Swaythling	99/00	STH	Wessex	2.81	2.81	2.81	2.81	2.81
Swinderby	03/04	LNE	LNE	1.50	1.50	1.56	2.28	2.28
Swindon	02/03	GW	Western	2.74	2.74	2.08	1.73	1.73
Swineshead	00/01	LNE	LNE	1.09	1.09	1.09	1.09	1.09
Swinton	04/05	NW	LNW	2.29	2.29	2.29	2.29	2.24
Swinton [South Yorks.]	99/00	LNE	LNE	2.01	2.01	2.01	2.01	2.01
Sydenham	02/03	STH	Sussex	2.06	2.06	2.36	2.36	2.36
Sydenham Hill	03/04	STH	Kent	1.99	1.99	1.99	2.48	2.48
Syon Lane	02/03	STH	Wessex	2.32	2.32	2.85	2.85	2.85
Syston	00/01	MID	LNE	2.17	2.17	2.17	2.17	2.17
Tackley Halt	04/05	GW	Western	2.00	2.00	2.00	2.00	2.57
Tadworth	99/00	STH	Sussex	2.40	2.40	2.40	2.40	2.40
Taffs Well	04/05	GW	Western	2.05	2.05	2.05	2.05	2.48
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of	of stations and their grad	aes						
	inclusion			Scores	Scores	Scores	Scores	Score
Tain	01/02	SCT	SCT	2.18	2.18	2.18	2.18	2.18
Talsarnau	03/04	GW	Western	1.53	1.53	1.53	1.97	1.97
Talybont	03/04	GW	Western	2.02	2.02	2.02	2.00	2.00
Tal-Y-Cafn	02/03	NW	LNW	2.79	2.79	2.02	2.02	2.02
Tamebridge Parkway	01/02	MID	LNW	1.05	1.05	1.05	1.05	1.05
Tamworth Low Level	02/03	MID	LNW	2.18	2.18	1.96	1.96	1.96
Taplow	02/03	GW	Western	2.33	2.33	2.73	2.73	2.73
Tattenham Corner	99/00	STH	Sussex	2.44	2.44	2.44	2.44	2.44
Taunton Station	04/05	GW	Western	2.31	2.31	2.10	2.10	2.13
Taynuilt	04/05	SCT	SCT	2.45	2.45	2.45	2.45	1.00
Teddington	99/00	STH	Wessex	2.33	2.33	2.33	2.33	2.33
Tees-Side Airport	99/00	LNE	LNE	2.65	2.65	2.65	2.65	2.65
Teignmouth	01/02	GW	Western	2.13	2.13	2.13	2.13	2.13
Telford	03/04	MID	LNW	1.79	1.79	1.79	1.87	1.87
Templecombe	99/00	STH	Wessex	2.49	2.49	2.49	2.49	2.49
Tenby	77100	GW	Western	1.92	1.92	1.92	1.92	1.92
Teynham	01/02	STH	Kent	2.49	2.49	2.49	2.49	2.49
Thames Ditton	02/03	STH	Wessex	2.38	2.38	2.61	2.61	2.61
Thatcham	02/03	GW	Western	2.18	2.18	2.05	2.05	2.05
Thatto Heath	02/03	NW	LNW	1.90	1.90	2.03	2.03	2.03
	01/02			1.90		1.01		
The Hawthorns		MID	LNW		1.01		1.01	1.01
The Lakes	04/05	MID	LNW	2.00	2.00	2.00	2.00	2.87
Theale	02/03	GW	Western	2.50	2.50	2.22	2.22	2.22
Theobalds Grove	03/04	EA	Anglia	2.10	2.10	2.10	2.16	2.16
Thetford	00/01	EA	Anglia	2.18	2.18	2.18	2.18	2.18
Thirsk	99/00	LNE	LNE	1.46	1.46	1.46	1.46	1.46
Thornaby	03/04	LNE	LNE	3.03	3.03	3.03	1.68	1.68
Thorne North	99/00	LNE	LNE	2.03	2.03	2.03	2.03	2.03
Thorne South	01/02	LNE	LNE	2.36	2.36	2.36	2.36	2.36
Thornford	01/02	STH	Wessex	3.06	3.06	3.06	3.06	3.06
Thornliebank	04/05	SCT	SCT	2.48	2.48	2.48	2.48	2.03
Thornton Abbey	99/00	LNE	LNE	2.95	2.95	2.95	2.95	2.95
Thornton Heath	03/04	STH	Sussex	2.45	2.45	2.45	2.60	2.60
Thorntonhall	04/05	SCT	SCT	2.54	2.54	2.13	2.13	1.80
THORPE BAY	03/04	EA	Anglia	2.06	2.06	2.06	2.06	2.06
Thorpe Culvert	02/03	LNE	LNE	2.43	2.43	2.38	2.38	2.38
Thorpe-Le-Soken	04/05	EA	Anglia	2.01	2.01	2.05	2.05	2.08
Three Bridges	03/04	STH	Sussex	2.73	2.73	2.73	2.67	2.67
Three Oaks	99/00	STH	Kent	2.43	2.43	2.43	2.43	2.43
Thurgarton	02/03	MID	LNE	1.10	1.10	1.95	1.95	1.95
Thurnscoe	03/04	LNE	LNE	2.28	2.28	2.28	2.25	2.25
Thurso	01/02	SCT	SCT	2.11	2.11	2.11	2.11	2.11
Thurston		EA	Anglia	1.71	1.71	1.71	1.71	1.71
Tilbury Town	03/04	EA	Anglia	1.24	1.24	1.24	1.26	1.26
Tile Hill	01/02	MID	LNW	1.16	1.16	1.16	1.16	1.16
Tilehurst	02/03	GW	Western	2.22	2.22	2.56	2.56	2.56
Tipton	01/02	MID	LNW	2.21	2.21	2.21	2.21	2.21
Tir-Phil	04/05	GW	Western	2.04	3.09	2.18	2.18	2.43
Tisbury	99/00	STH	Wessex	2.47	2.47	2.47	2.47	2.47
Tiverton Parkway	02/03	GW	Western	1.61	2.37	1.50	1.50	1.50
Todmorden	01/02	NW	LNW	2.19	2.19	2.19	2.19	2.19
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of sta	ations and their gra	des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Tolworth	98/99	STH	Wessex	2.60	2.60	2.60	2.60	2.60
Ton Pentre		GW	Western	1.93	1.93	1.93	1.93	1.93
Tonbridge	01/02	STH	Kent	2.75	2.75	2.75	2.75	2.75
Tondu		GW	Western	2.00	2.00	2.00	2.00	2.00
Tonfanau	03/04	GW	Western	0.00			1.70	1.70
Tonypandy		GW	Western	1.84	1.84	1.84	1.84	1.84
Tooting	03/04	STH	Sussex	1.50	1.50	1.50	2.11	2.11
Topsham	04/05	GW	Western	2.64	2.64	2.64	2.36	1.83
Torquay	03/04	GW	Western	2.40	2.40	2.40	2.73	2.73
Torre	03/04	GW	Western	2.28	2.28	2.28	2.76	2.76
Totnes	02/03	GW	Western	2.32	2.32	2.15	2.15	2.15
Tottenham Hale	01/02	EA	Anglia	2.00	2.00	2.00	2.00	2.00
Totton	99/00	STH	Wessex	2.51	2.51	2.51	2.51	2.51
Town Green	03/04	NW	LNW	2.21	2.21	2.21	2.06	2.06
Trafford Park	02/03	NW	LNW	1.70	1.70	2.11	2.11	2.11
Trefforest		GW	Western	1.98	1.98	1.98	1.98	1.98
Trefforest Estate	04/05	GW	Western	2.03	2.03	2.03	2.03	2.69
Trehafod		GW	Western	2.82	2.82	2.82	2.82	2.82
Treherbert		GW	Western	2.20	2.20	2.20	2.20	2.20
Treorchy		GW	Western	1.95	1.95	1.95	1.95	1.95
Trimley	00/01	EA	Anglia	2.36	2.36	2.36	2.36	2.36
Tring	02/03	MID	LNW	2.07	2.07	2.12	2.12	2.12
Troed-y-Rhiw Station	04/05	GW	Western	1.85	1.85	1.85	1.85	2.19
Troon	03/04	SCT	SCT	2.35	2.35	2.35	2.38	2.38
Trowbridge		GW	Western	1.80	1.80	1.80	1.80	1.80
Truro	02/03	GW	Western	2.38	2.38	2.44	2.44	2.44
Tulloch	04/05	SCT	SCT	2.19	2.19	2.19	2.19	1.86
Tulse Hill	04/05	STH	Sussex	2.35	2.35	2.35	2.35	2.26
Tunbridge Wells	04/05	STH	Kent	2.47	2.47	2.47	2.47	2.75
Turkey Street	04/05	EA	Anglia	2.18	2.18	2.18	2.24	2.20
Tutbury And Hatton	00/01	MID	LNE	3.00	3.00	3.00	3.00	3.00
Twickenham	03/04	STH	Wessex	2.45	2.45	2.69	2.69	2.69
Twyford	02/03	GW	Western	2.00	2.00	2.53	2.53	2.53
Ty Croes	99/00	NW	LNW	2.20	2.20	2.20	2.20	2.20
Ty Glas Station	04/05	GW	Western	2.03	2.03	1.77	1.77	2.46
Tygwyn	03/04	GW	Western	1.44	1.44	1.44	2.42	2.42
Tyndrum Lower	04/05	SCT	SCT	2.60	2.60	2.60	2.60	1.37
Tyndrum Upper	04/05	SCT	SCT	2.25	2.25	2.25	2.25	1.99
Tyseley	01/02	MID	LNW	1.40	1.40	1.40	1.40	1.40
Tywyn	03/04	GW	Western	2.30	2.30	2.30	1.60	1.60
Uckfield	99/00	STH	Sussex	2.40	2.40	2.40	2.40	2.40
Uddingston	02/03	SCT	SCT	2.45	2.45	2.46	2.46	2.46
Ulceby	02/03	LNE	LNE	2.38	2.38	2.50	2.50	2.50
Ulleskelf	02/03	LNE	LNE	1.00	1.00	1.00	1.00	1.00
Ulverston	01/02	NW	LNW	2.97	2.97	2.97	2.97	2.97
Umberleigh	03/04	GW	Western	3.10	3.10	3.10	2.08	2.08
University	01/02	MID	LNW	1.65	1.65	1.65	1.65	1.65
Uphall	04/05	SCT	SCT	2.31	2.31	2.4	2.36	1.05
Upholland	99/00	NW	LNW	2.48	2.48	2.48	2.48	2.48
Upminster	04/05	EA	Anglia	2.40	2.38	2.38	2.38	2.33
	99/00	STH	Wessex	2.36	2.36	2.36	2.36	2.33
Upper Halliford								
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of station	s and their gra	.des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Upper Holloway	02/03	EA	Anglia	2.03	2.03	2.03	2.03	2.03
Upper Warlingham	04/05	STH	Sussex	2.53	2.53	2.53	2.53	2.17
Upton	01/02	NW	LNW	2.55	2.55	2.55	2.55	2.55
Upwey	99/00	STH	Wessex	2.51	2.51	2.51	2.51	2.51
Urmston	02/03	NW	LNW	2.06	2.06	1.92	1.92	1.92
Uttoxeter	02/03	MID	LNE	2.63	2.63	2.03	2.03	2.03
Valley	02/03	NW	LNW	2.20	2.20	2.17	2.17	2.17
Vauxhall	02/03	STH	Wessex	2.40	2.40	2.00	2.00	2.00
Virginia Water	99/00	STH	Wessex	2.40	2.40	2.40	2.40	2.40
Waddon	03/04	STH	Sussex	2.45	2.45	2.45	2.87	2.87
Wadhurst	01/02	STH	Kent	2.43	2.43	2.43	2.43	2.43
Wainfleet	02/03	LNE	LNE	0.00		1.61	1.61	1.61
Wakefield Kirkgate	03/04	LNE	LNE	3.30	3.30	3.30	2.88	2.88
Wakefield Westgate	03/04	LNE	LNE	2.80	2.80	2.80	2.81	2.81
Walkden	01/02	NW	LNW	2.82	2.82	2.82	2.82	2.82
Wallasey Grove Road	03/04	NW	LNW	2.99	2.99	2.99	2.30	2.30
Wallasey Village	03/04	NW	LNW	2.26	2.26	2.26	2.14	2.14
Wallington	03/04	STH	Sussex	2.36	2.36	2.36	2.74	2.74
Wallyford	04/05	SCT	SCT	2.09	2.09	2.1	2.15	1.22
Walmer	02/03	STH	Kent	2.43	2.43	2.80	2.80	2.80
Walsall	02/03	MID	LNW	1.48	1.48	1.47	1.47	1.47
Walsden	99/00	NW	LNW	2.35	2.35	2.35	2.35	2.35
Waltham Cross	03/04	EA	Anglia	2.00	2.00	2.00	2.09	2.09
Walthamstow Central	01/02	EA	Anglia	2.04	2.04	2.04	2.04	2.04
Walthamstow Queens Road		EA	Anglia	2.36	2.36	2.36	2.36	2.36
Walton Junction	01/02	NW	LNW	2.01	2.01	2.01	2.01	2.01
Walton-On-Naze	00/01	EA	Anglia	1.19	1.19	1.19	1.19	1.19
Walton-On-Thames	98/99	STH	Wessex	2.33	2.33	2.33	2.33	2.33
Wanborough	02/03	STH	Wessex	3.45	3.45	2.81	2.81	2.81
Wandsworth Common	03/04	STH	Sussex	2.02	2.02	2.02	2.71	2.71
Wandsworth Road	02/03	STH	Sussex	2.40	2.40	2.51	2.51	2.51
Wandsworth Town	01/02	STH	Wessex	2.36	2.36	2.36	2.36	2.36
Wanstead Park		EA	Anglia	1.40	1.40	1.40	1.40	1.40
Warblington	04/05	STH	Sussex	3.64	3.64	3.64	3.64	2.94
Ware	02/03	EA	Anglia	2.20	2.20	2.17	2.17	2.17
Wareham	99/00	STH	Wessex	2.51	2.51	2.51	2.51	2.51
Wargrave		GW	Western	2.13	2.13	2.13	2.13	2.13
Warminster		GW	Western	2.10	2.10	2.10	2.10	2.10
Warnham	01/02	STH	Sussex	2.77	2.77	2.77	2.77	2.77
Warrington Bank Quay	04/05	NW	LNW	1.90	1.90	1.90	1.90	2.08
Warrington Central	04/05	NW	LNW	2.08	2.08	2.08	2.08	2.10
Warwick	01/02	MID	LNW	1.64	1.64	1.64	1.64	1.64
Water Orton	01702	MID	LNW	2.93	2.93	2.93	2.93	2.93
Waterbeach	04/05	EA	Anglia	2.39	2.39	2.39	2.39	2.24
Wateringbury	99/00	STH	Kent	2.72	2.72	2.72	2.72	2.72
Waterloo [Merseyside]	99/00	NW	LNW	2.24	2.24	2.24	2.24	2.24
Waterloo East	02/03	STH	Kent	1.64	1.64	2.33	2.33	2.33
Watford High Street	03/04	MID	LNW	2.26	2.26	2.26	2.04	2.04
Watford Junction	02/03	MID	LNW	2.11	2.11	1.64	1.64	1.64
Watford North	02/03	MID	LNW	2.00	2.00	1.97	1.97	1.97
Watlington	04/05	EA		2.45	2.45	2.45	2.45	2.50
Station Name	Year of	Zone	Anglia <b>Route</b>	00/01	01/02	02/03	03/04	04/05
Station Iname	i ear of	Zone	Noute	00/01	01/02	02/03	03/04	U <del>1</del> /U3

Table List of station	s and their gra	des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Watton-At-Stone	99/00	LNE	LNE	2.14	2.14	2.14	2.14	2.14
Waun Gron Park Station	04/05	GW	Western	2.00	2.00	2.00	2.00	2.24
Wavertree Technology Park	02/03	NW	LNW	0.00		1.00	1.00	1.00
Wedgwood		NW	LNW	3.25	3.25	3.25	3.25	3.25
Weeley	04/05	EA	Anglia	2.11	2.11	2.11	2.11	2.40
Weeton	02/03	LNE	LNE	3.00	3.00	2.73	2.73	2.73
Welham Green	99/00	LNE	LNE	2.34	2.34	2.34	2.34	2.34
Welling	04/05	STH	Kent	2.46	2.46	2.46	2.46	2.66
Wellingborough	03/04	MID	LNE	2.00	2.00	2.00	1.98	1.98
Wellington	04/05	MID	LNW	1.98	1.98	1.98	1.98	2.16
Welshpool		GW	Western	1.59	1.59	1.59	1.59	1.59
Welwyn Garden City	99/00	LNE	LNE	2.00	2.00	2.00	2.00	2.00
Welwyn North	99/00	LNE	LNE	2.39	2.39	2.39	2.39	2.39
Wem	03/04	GW	Western	2.23	2.23	2.23	2.40	2.40
Wembley Central	02/03	MID	LNW	2.17	2.17	2.04	2.04	2.04
Wembley Stadium	99/00	MID	LNW	0.00		2.60	2.60	2.60
Wemyss Bay	01/02	SCT	SCT	2.30	2.30	2.30	2.30	2.30
Wendover	03/04	MID	LNW	2.00	2.00	2.00	1.91	1.91
Wennington	01/02	NW	LNW	1.92	1.92	1.92	1.92	1.92
West Allerton	03/04	NW	LNW	2.36	2.36	2.36	2.05	2.05
West Brompton	02/03	STH	Sussex	2.50	2.50	1.00	1.00	1.00
West Byfleet	99/00	STH	Wessex	2.61	2.61	2.61	2.61	2.61
West Calder	02/03	SCT	SCT	2.19	2.19	2.1	2.14	2.14
West Croydon	01/02	STH	Sussex	2.19	2.34	2.34	2.14	2.14
·	02/03	GW	Western		2.20	2.73	2.73	2.73
West Drayton				2.20				
West Dulwich	01/02	STH	Kent	2.47	2.47	2.47	2.47	2.47
West Ealing	02/03	GW	Western	2.03	2.03	2.30	2.30	2.30
West Ham	00/01	EA	Anglia	1.00	1.00	1.00	1.00	1.00
West Hampstead	00/01	EA	Anglia	1.99	1.99	1.99	1.99	1.99
West Hampstead Thameslink	00/01	MID	LNE	2.08	2.08	2.08	2.08	2.08
West Horndon	01/02	EA	Anglia	2.02	2.02	2.02	2.02	2.02
West Houghton	04/05	NW	LNW	2.88	2.88	2.88	2.88	2.12
West Kilbride	03/04	SCT	SCT	2.07	2.07	2.07	2.17	2.17
West Kirby	01/02	NW	LNW	1.95	1.95	1.95	1.95	1.95
West Malling	02/03	STH	Kent	2.41	2.41	2.57	2.57	2.57
West Norwood	01/02	STH	Sussex	2.50	2.50	2.50	2.50	2.50
West Ruislip		MID	LNW	2.49	2.49	2.49	2.49	2.49
West Runton	03/04	EA	Anglia	2.83	2.83	2.83	2.17	2.17
West St Leonards	02/03	STH	Kent	2.42	2.42	3.08	3.08	3.08
West Sutton	03/04	STH	Sussex	2.40	2.40	2.40	2.69	2.69
West Wickham	01/02	STH	Kent	2.66	2.66	2.66	2.66	2.66
West Worthing	01/02	STH	Sussex	2.47	2.47	2.47	2.47	2.47
Westbury	02/03	GW	Western	2.40	2.40	2.40	2.40	2.40
Westcliff	02/03	EA	Anglia			1.98	1.98	1.98
Westcombe Park	03/04	STH	Kent	2.42	2.42	2.42	2.49	2.49
Westenhanger	99/00	STH	Kent	2.41	2.41	2.41	2.41	2.41
Westerfield	03/04	EA	Anglia	2.07	2.07	2.07	2.10	2.10
Westerhailes	02/03	SCT	SCT	2.26	2.26	2.1	2.14	2.14
Westerton	03/04	SCT	SCT	2.18	2.18	2.01	1.99	1.99
Westgate-On-Sea	03/04	STH	Sussex	2.41	2.41	2.41	2.60	2.60
Weston Milton	03/04	GW	Western	2.36	2.36	2.45	2.75	2.75
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of stat	ions and their gra	des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Weston-super-Mare	03/04	GW	Western	2.15	2.15	2.05	2.03	2.03
Wetherall	99/00	LNE	LNE	2.59	2.59	2.59	2.59	2.59
Weybridge	03/04	STH	Wessex	2.70	2.70	2.70	2.63	2.63
Weymouth	99/00	STH	Wessex	2.46	2.46	2.46	2.46	2.46
Whaley Bridge	04/05	NW	LNW	2.03	2.03	2.03	2.03	2.08
Whalley	03/04	NW	LNW	1.79	1.79	1.79	2.10	2.10
Whatstandwell	02/03	MID	LNE	2.19	2.19	1.93	1.93	1.93
Whifflet	02/03	SCT	SCT	2.01	2.01	2.07	2.07	2.07
Whimple	99/00	STH	Wessex	2.55	2.55	2.55	2.55	2.55
Whinhill	01/02	SCT	SCT	2.55	2.55	2.55	2.55	2.55
Whiston	03/04	NW	LNW	3.04	3.04	3.04	2.06	2.06
Whitby	03/04	LNE	LNE	2.04	2.04	2.04	2.35	2.35
Whitchurch (Salop)	03/04	GW	Western	2.19	2.19	2.19	2.41	2.41
Whitchurch [Hants]	99/00	STH	Wessex	2.52	2.52	2.52	2.52	2.52
Whitchurch Station	04/05	GW	Western	2.00	2.00	2.00	2.00	2.73
White Hart Lane	02/03	EA	Anglia	1.90	1.90	2.03	2.03	2.03
White Notley	02/03	EA	Anglia	2.25	2.25	2.22	2.22	2.22
Whitecraigs	02/03	SCT	SCT	2.37	2.37	2.36	2.36	2.36
Whitehaven	04/05	NW	LNW	2.11	2.11	2.11	2.11	2.12
Whitland		GW	Western	2.18	2.18	2.18	2.18	2.18
Whitley Bridge	03/04	LNE	LNE	2.50	2.50	2.50	2.41	2.41
Whitlocks End	04/05	MID	LNW	2.75	2.75	2.75	2.75	2.44
Whitstable Station	03/04	STH	Kent	2.46	2.46	2.46	3.00	3.00
Whittlesea	00/01	EA	Anglia	2.35	2.35	2.35	2.35	2.35
Whittlesford	01/02	EA	Anglia	1.43	1.43	1.43	1.43	1.43
Whitton	03/04	STH	Wessex	2.59	2.59	2.87	2.87	2.87
Whitwell	02/03	LNE	LNE	0.00		1.91	1.91	1.91
Whyteleafe	04/05	STH	Sussex	2.41	2.41	2.41	2.41	2.27
Whyteleafe South	04/05	STH	Sussex	2.46	2.46	2.46	2.46	2.13
Wick	01/02	SCT	SCT	2.07	2.07	2.07	2.07	2.07
Wickford	02/03	EA	Anglia	2.03	2.03	2.18	2.18	2.18
Wickham Market	03/04	EA	Anglia	2.50	2.50	2.50	2.27	2.27
Widdrington	02/03	LNE	LNE	2.27	2.27	2.78	2.78	2.78
Widnes	03/04	NW	LNW	2.03	2.03	2.03	2.02	2.02
Widney Manor	01/02	MID	LNW	1.15	1.15	1.15	1.15	1.15
Wigan North Western	04/05	NW	LNW	2.52	2.52	2.52	2.52	2.17
Wigan Wallgate	04/05	NW	LNW	2.57	2.57	2.57	2.57	1.98
Wigton	02/03	NW	LNW	2.18	2.18	2.00	2.00	2.00
Wildmill	02/03	GW	Western	2.00	2.00	2.00	2.00	2.00
Willesden Junction	02/03	EA	Anglia	2.00	2.00	2.16	2.16	2.16
Willesden Junction	03/04	MID	LNW	2.06	2.06	2.06	1.90	1.90
Williamwood	02/03	SCT	SCT	2.10	2.10	2.25	2.25	2.25
Willington Staton	03/04	MID	LNE	2.39	2.39	2.39	1.88	1.88
Wilmcote	04/05	MID	LNW	1.98	1.98	1.98	1.98	2.61
Wilmslow	04/03	NW	LNW	3.03	3.03	3.03	3.03	3.03
Wilnecote	04/05	MID	LNW	2.24	2.24	2.24	2.24	2.41
Wimbledon	04/03	STH	Wessex	2.47	2.47	2.47	2.47	2.47
Wimbledon Chase	03/04	STH	Sussex	2.40	2.40	2.40	2.83	2.83
Winchelsea Winchelsea	99/00	STH	Kent	2.30	2.30	2.30	2.30	2.30
	01/02			2.30				
Winchester		STH	Wessex		2.15	2.15	2.15	2.15
Winchfield	01/02	STH	Wessex	2.16	2.16	2.16	2.16	2.16
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List of static	ons and their gra	.des						
	inclusion			Scores	Scores	Scores	Scores	Scores
Winchmore Hill	99/00	LNE	LNE	1.67	1.67	1.67	1.67	1.67
Windermere	02/03	NW	LNW	1.96	1.96	2.04	2.04	2.04
Windsor & Eton Central		GW	Western	2.05	2.05	2.05	2.05	2.05
Windsor & Eton Riverside	99/00	STH	Wessex	2.33	2.33	2.33	2.33	2.33
Winnersh	99/00	STH	Wessex	2.41	2.41	2.41	2.41	2.41
Winnersh Triangle	99/00	STH	Wessex	2.17	2.17	2.17	2.17	2.17
Winsford	02/03	NW	LNW	2.15	2.15	2.06	2.06	2.06
Wishaw	02/03	SCT	SCT	2.06	2.06	1.42	1.42	1.42
Witham	01/02	EA	Anglia	2.01	2.01	2.01	2.01	2.01
Witley	99/00	STH	Wessex	2.75	2.75	2.75	2.75	2.75
Witton	01/02	MID	LNW	1.92	1.92	1.92	1.92	1.92
Wivelsfield	02/03	STH	Sussex	2.22	2.22	2.40	2.40	2.40
Wivenhoe	04/05	EA	Anglia	2.23	2.23	2.23	2.23	2.20
Woburn Sands	02/03	MID	LNW	1.94	1.94	2.03	2.03	2.03
Woking	01/02	STH	Wessex	2.34	2.34	2.34	2.34	2.34
Wokingham	99/00	STH	Wessex	2.51	2.51	2.51	2.51	2.51
Woldingham	04/05	STH	Sussex	2.48	2.48	2.48	2.48	2.29
Wolverhampton	01/02	MID	LNW	2.15	2.15	2.15	2.15	2.15
Wolverton	02/03	MID	LNW	2.00	2.00	2.51	2.51	2.51
Wombwell	01/02	LNE	LNE	2.08	2.08	2.08	2.08	2.08
Wood End	04/05	MID	LNW	2.82	2.82	2.82	2.58	2.32
Wood Street	01/02	EA	Anglia	3.71	3.71	3.71	2.19	2.19
Woodbridge	04/05	EA	Anglia	2.38	2.38	2.38	2.38	2.17
Woodgrange Park	0 17 00	EA	Anglia	1.50	1.50	1.50	1.50	1.50
Woodhall	01/02	SCT	SCT	2.40	2.40	2.40	2.40	2.40
Woodham Ferrers	02/03	EA	Anglia	2.10	2.10	2.38	2.38	2.38
Woodhouse	02/03	LNE	LNE	2.75	2.75	2.16	2.16	2.16
Woodlesford	02.03	LNE	LNE	1.00	1.00	1.00	1.00	1.00
Woodley	02/03	NW	LNW	2.15	2.15	2.38	2.38	2.38
Woodmansterne	99/00	STH	Sussex	2.45	2.45	2.45	2.45	2.45
Woodsmoor	77100	NW	LNW	0.00	Z. 13	Z. 13	Z. 13	0.00
Wool	01/02	STH	Wessex	2.69	2.69	2.69	2.69	2.69
Woolston	01/02	STH	Wessex	2.35	2.35	2.35	2.35	2.35
Woolwich Arsenal	04/05	STH	Kent	2.01	2.01	2.01	2.01	2.22
Woolwich Dockyard	03/04	STH	Kent	1.93	1.93	1.93	2.21	2.21
Wootton Wawen	03/04	MID	LNW	2.10	2.10	2.10	2.48	2.48
Worcester Foregate Street	02/04	GW	Western	2.10	2.10	2.10	2.10	2.10
Worcester Park	03/04	STH	Wessex	2.46	2.46	2.90	2.90	2.90
Worcester Shrub Hill	0.4.05	GW	Western	2.58	2.58	2.58	2.58	2.58
Workington	04/05	NW	LNW	2.44	2.44	2.44	2.44	2.37
Worksop	99/00	LNE	LNE	2.36	2.36	2.36	2.36	2.36
Worle	01.700	GW	Western	2.30	2.30	2.30	2.30	2.30
Worplesdon	01/02	STH	Wessex	2.15	2.15	2.15	2.15	2.15
Worstead	03/04	EA	Anglia	2.85	2.85	2.85	2.18	2.18
Worthing	04/05	STH	Sussex	2.48	2.48	2.48	2.48	2.74
Wrabness	03/04	EA	Anglia	2.26	2.26	2.26	2.46	2.46
Wraysbury	04/05	STH	Wessex	2.49	2.49	2.49	2.49	2.45
Wrenbury	03/04	GW	Western	2.13	2.13	2.13	1.69	1.69
Wressle	02/03	LNE	LNE	2.84	2.84	2.88	2.88	2.88
Wrexham	01/02	NW	LNW	2.78	2.78	2.78	2.78	2.78
Wrexham Central	04/05	NW	LNW	1.15	1.15	1.15	1.06	1.33
Station Name	Year of	Zone	Route	00/01	01/02	02/03	03/04	04/05

Table List	of stations and their grad	es						
	inclusion			Scores	Scores	Scores	Scores	Scores
Wye	03/04	STH	Kent	2.62	2.62	2.62	2.72	2.72
Wylam	03/04	LNE	LNE	2.72	2.72	2.72	2.31	2.31
Wylde Green	04/05	MID	LNW	1.84	1.84	1.84	1.84	2.14
Wymondham	00/01	EA	Anglia	1.64	1.64	1.64	1.64	1.64
Wythall	03/04	MID	LNW	2.04	2.04	2.04	2.25	2.25
Yalding Station	03/04	STH	Kent	2.75	2.75	2.75	2.69	2.69
Yardley Wood	04/05	MID	LNW	2.21	2.21	2.21	2.21	2.07
Yarm	03/04	LNE	LNE	1.92	1.92	1.92	2.16	2.16
Yate Station	04/05	GW	Western	2.86	2.86	2.86	2.86	2.66
Yatton	03/04	GW	Western	2.23	2.23	2.23	2.64	2.64
Yeoford		GW	Western	2.05	2.05	2.05	2.05	2.05
Yeovil Junction	03/04	STH	Wessex	2.53	2.53	2.53	2.95	2.95
Yeovil Pen Mill	03/04	STH	Wessex	2.51	2.51	2.51	2.78	2.78
Yetminster Station	03/04	STH	Wessex	2.66	2.66	2.66	3.01	3.01
Ynyswen		GW	Western	2.10	2.10	2.10	2.10	2.10
Yoker	03/04	SCT	SCT	2.21	2.21	2.43	2.28	2.28
York	01/02	LNE	LNE	2.50	2.50	2.50	2.50	2.50
Yorton	03/04	GW	Western	2.12	2.12	2.12	2.62	2.62
Ystrad Mynach Station	04/05	GW	Western	2.14	2.68	2.74	2.74	2.51
Ystrad Rhondda		GW	Western	2.00	2.00	2.00	2.00	2.00

# Appendix 2 – Glossary of terms

AC Alternating current

Action plans Programme of highly focused improvement plans by which Network Rail

will deliver the corporate goals

ADG Area delivery group

AHB Level crossing protected by Automatic Half-Barrier

Alliance Close working arrangement between Network Rail and one or more of its

contractors

Amey Infrastructure maintenance contractor

AMP Asset maintenance plan

Annual Return Network Rail's document to ORR stating our performance for the previous

year.

ATOC Association of Train Operating Companies

ATP Advanced train protection

AWS Automatic warning system

BAA British Airports Authority, owner and operator of a number of airports in

Great Britain

Blockade Extended possession of a section of line which may enable works to be

carried out in a more efficient manner

BMIS Business management information system

Booster transformer AC electrification transformer mounted on lineside mast

Cat A SPAD (see below) where a stop aspect was correctly displayed in time

for the train to stop safely at the signal

CCRM Cross Country Route modernisation, scheme to create extra capacity and

enhancement

**CCTV** Closed-circuit television

**CET** Controlled emission toilet

CIS Customer information system

Class 180 New 125mph diesel multiple unit rolling stock used by First Great Western

Class 373/2 Eurostar train sets

Concentrator Telecommunications equipment connecting and controlling lineside

telephones

Connex South Eastern (part of the Vivendi Group)

Control period (CP)

The period (normally five years) for which the Rail Regulator fixes our

access income from franchised passenger train operators

Crossing The component of a turnout that enables a train wheel to complete the

transfer from one line to another. It is this unit which enables the wheel to

cross the original line being traversed

CRR Customer reasonable requirement

CSR Cab secure radio

CTRL Channel Tunnel Rail Link

**Culvert** Small bridge or pipe crossing under the railway track for the passage of

watercourses

Cyclic Budget Set aside for planned renewals

**D&C** Design and construction

DC Direct current

**DFA** Deferred fixed assets

**DfT** Department for Transport

DOO Driver only operation

**DRS** Direct rail services

East Anglia region

Earthworks Embankments and cuttings

**ECML** East Coast Main Line

ECR Electrical control room

**Enhancement** Project that results in additional outputs from the infrastructure

ERTMS European railway traffic management system

**ESR** Emergency speed restriction

**Evergreen (project)** Project to install a second line on single line sections of track

EWS English Welsh and Scottish Railway

Freight haulage Operation/cost of bringing track renewal materials to site

FDM Frequency division multiplexing

Financial efficiency index

First Great Western

FRAME Fault reporting and monitoring of equipment (existing legacy system)

FS Feeder station

FTN Fixed telecom network

Funders Authorities and agencies which provide funding to secure rail services

Gauge Distance between the inner running faces of two rails or the 'envelope'

through which train profiles must fit

Gauge corner cracking, now renamed rolling contact fatigue (RCF)

GDIP GEOGIS data improvement programme

GE Great Eastern

GMPTE Greater Manchester Passenger Transport Executive

GNER Great North Eastern Railway

**Grinding** Reprofiling of the rail head to remove defects and extend the life of the rail

GSM-R Global System for Mobile communication – Railway. European standard for

railway communications designed to support all radio applications required for railway operations including speech, data and control communications

**HEX** Heathrow Express

High output renewal Track renewals using the latest specialist equipment that enhances

productivity e.g. track relaying machine, and high output ballast cleaner

HMRI Her Majesty's Rail Inspectorate

HV High voltage

IECC Integrated electronic control centre

IMC Infrastructure maintenance contractor

IMC2 Second generation maintenance contract

IMC2000 Third generation maintenance contract

IMS Investment management system

IMT Infrastructure maintenance transfer

Interlockings Mechanical, electrical or electronic. These execute the safety logic to

reduce the risk of error when controlling points and signals.

IOS Incremental output statement

IT Information technology

IVRS Interactive voice recognition system

kV Kilovolt (= 1, 000 volts)

L2 See level 2 exceedences

Level crossing

Leaf fall Refers to the period in autumn where leaves fall on the track requiring

measures to assure adhesion

**Leeds First** Project to regenerate the Leeds station area

Level 2 exceedence A measure of track geometry indicating isolated deviations from standards

LLPA Long line public address

LMD Light maintenance depot

LNE region London North Eastern region

Loop A facility to allow a train to stop and be overtaken by a faster train

London Tilbury Southend line

LTVA Long term vehicular access project at Paddington station

LUL London Underground Limited

MandEE Mechanical and electrical engineering

Maintenance Periodic work to uphold the reliability and safety of assets

Masterplan The plans for the development of each of the Network Rail-managed

stations – those stations that are operated by Network Rail

MFAS Modern facilities at stations project

MIMS Minicom information management system

MSE Midland suburban electrification

National bearer network Network providing telecommunication circuits

NLL North London Line

NLU National logistics unit

NMS Network management statement

NRN National radio network

OHL Overhead line

OLE Overhead line equipment

Opex Operational expenditure

ORR Office of Rail Regulation. Refers to the situation after 5 July 2004 when the

Rail Regulator was succeeded by a Board

PALADIN Performance and loading analysis database

Pan 8 Older type of fixing that secures rail to sleepers

Patch resleepering Replacement of an average of less than 1 in 3 sleepers under maintenance

Peer review Central office review of regional plans

Periodic review The process by which the ORR establishes Network Rail's revenue

requirements for a control period

PFI Action plan established to address train performance improvement

**PfPI** Process for performance improvement

**Possession** The closure of a line to allow engineering works

**PSB** Power signal box

**PSR** Permanent speed restriction

PTE Passenger transport executive

PTI 2000 Public Transport Information 2000

PUG Passenger upgrade

PUMPS A database which processes information contained in TRUST and FRAME

Q12 Employee engagement survey carried out by Gallup

RA Route availability: RA 1–6 up to 20.3 tonnes; RA7–9 up to 23.4 tonnes;

RAIO up to 25.4 tonnes

RAB Regulatory asset base

RCF Rolling contact fatigue

Reactive Budget Budget set aside for urgent/emergency works not previously identified

Regulator The Rail Regulator who existed prior to 5 July 2004 (see ORR)

Regulatory Accounts

Annual financial information provided to ORR

Renewal Like for like replacement of an asset

**RETB** Radio electronic token block

RIMINI Network Rail's risk minimisation standard

Rules of the Route Agreement between Network Rail and train operators as to when lines can

be temporarily closed for maintenance and renewal work

Running Lines Lines used for running services, not sidings

**S&C** Switches and crossings (component units that make up points or a turnout)

**S&E** Safety and environment

SandT Signalling and telecommunications

SAMP Signalling asset maintenance plan

SCMI Structures condition monitoring index

Scrap Clearance Initiative to remove maintenance/renewals scrap material from the lineside

SD Standard deviation

SEC Structures examination contract

SERCO Infrastructure maintainer for East Midlands contract area

Sectional Appendix Appendix to working timetables and books of rules and regulations

Semaphore Type of signal that uses the position of an oblong arm as indication during

the day and coloured light at night

SEU Signalling equivalent units

SICA Signalling infrastructure condition assessment

Silverlink Passenger operator providing high-intensity commuter services from

London Euston over the southern end of the WCML (see below)

SINCS Signalling incident system

Spacia Property letting company owned by Network Rail

SMART Scheme to provide information on train running

SPT Signal post telephone

SPAD Signal passed at danger

SRA Strategic Rail Authority

SRNTP Southern region new trains programme

SRP Station regeneration programme

Stakeholder Those who have a vested interest in the company and the service it

provides

Stoneblower Pneumatic ballast injection maintenance machine that delivers improved

permanence to track geometry corrections

Sunderland Direct Extension of Tyne and Wear metro system to Sunderland and South

Hylton

SWGPA Signalling works geographical partnership alliance

Switchgear Equipment used to control the supply of power to electrified railways

Switch heater Device to avoid point ends freezing together in cold weather

SWT South West Trains

SYPTE South Yorkshire Passenger Transport Executive

TDM Train describer modules found on the panels within some signal boxes

Tension length Discrete run of overhead catenary wire

TfL Transport for London

Thameslink 2000 Project by which existing north-south cross London Thameslink route is

modernized

Third rail

Carries power to electrified trains for direct current electrified railway

systems

TOC Train operating company

**TPWS** Train protection warning system

TPWS+ TPWS functionality at higher speed

Track circuit An electrical device using the rails in an electrical circuit, which detects the

presence of trains on a defined section of line

**Transformer rectifier** Equipment to convert area board electricity to 600/750V direct current

electricity for use by third rail systems

Troughing Protective runs in which power, signalling and telecom cables are placed

TSP Track sectioning point

TSR Temporary speed restriction

**Turnback** A facility allowing trains to reverse their direction

Type approval Process of gaining approval to operate new type of equipment or

infrastructure on the rail network

**UK** United Kingdom

**UPS** Uninterruptible power supply

Virgin Main line passenger operator for WCML and Cross Country route

Voltage regulator Equipment used to maintain voltage within specified limits

W10w This gauge was previously known as 9'6" refrigerated container gauge. It is

now called W12.

WII The gauge capable of handling 4m-high ORR trailers on rail wagons. This

gauge is now known as W18

W12 Freight gauge formerly known as W10W

W18 The gauge formerly known as W11

W6A Loading gauge for standard freight vehicles

W7 Previously called WG8 8' container gauge

W8 Previously 8'6" container gauge

W9 Previously SBIc gauge

W10 Previously 9'6'' container gauge

WARM West Anglia route modernisation

WCML West Coast Main Line

WCRM West Coast Route Modernisation, scheme for modernisation of the

WCML

WON Weekly operating notice

# Appendix 3 – Agreed Form of the 2005 Annual Return



40 Melton Street London NWI 2EE

Tel: +44 (0)20 7557 8000 Fax: +44 (0)20 7557 9000

Hedley Calderbank
Deputy Director of Infrastructure Regulation
Office of Rail Regulation
138-142 Holborn
London ECIV 2TQ

28 April 2004

Dear Hedley

#### Form and Content of the 2005 annual return

Further to your letters of 22 December 2004 and 10 March 2005, my responses and the various discussions Network Rail/ ORR, this letter and attachment now gives our formal proposal for the form and content of the annual return 2005, submitted for your approval.

In addition to reporting as per the attached table, we have agreed to provide the ORR and the reporters with further information (separately from the annual return):

Measures M1, M2, M5, M9 further disaggregated into Network Rail's 18 areas.

We would also draw to your attention, the fact that a number of these measure disaggregations are additional to those reported at previous annual returns, including parts of the track geometry matrix, electrification condition measures, changes to some of the capability measures, and the 18 area breakdown of measures M1, M2, M5, M9. Whilst we have agreed to provide this data (either within or separately to the annual return), we are concerned this will in some cases be difficult, and will add to the regulatory burden on the business.

We reiterate it remains our intention to state unambiguously our understanding of the regulatory targets for CP2 (2004-2009) where they exist for specific measures.

We also confirm our intention to compare the actual outputs, achievements and expenditure reported in the 2005 annual return with our forecasts stated in our 2004 Business Plan. Where relevant we will make reference to budgets within the commentaries of particular tables.

We look forward to your formal agreement of the form and content for the 2005 annual return as per Condition I5 of the network licence.

Yours sincerely

Steve Bottom

Regulatory Business Manager

Network Rail Infrastructure Ltd Registered Office 40 Melton Street London NW1 2EE Registered in England and Wales No. 2904587 www.networkrail.co.uk

## **Reporting Requirements**

#### Form and Content for Annual Return 2005

	Measure Section 1 - Train performance	Data required	Disaggregation
	Section I - Train performance  Delays to passenger and freight train services attributable	Delay minutes	National; TOC
	to Network Rail	Delay minutes per 100 train kilometres	National; TOC
		Delay by cause category	National; 8 operating routes
ORR KPI 2; NR KPI 2.0	Public performance measure	% of trains arriving on time	National; TOC
	Asset failure		
section 2 – F	Infrastructure incidents	Number of incidents recorded for delay	National; 8 operating routes
		attribution, by cause	
ORR KPI 4	ORR asset failure KPI 4	Number of incidents due to:	National; 8 operating routes
		Broken rails; Points/track circuit failures;	
		Signalling failures;	
		Electrification failures; and	
		Other infrastructure failures	
Section 3 - A	Asset quality		
NR KPI 6.0a	Network Rail asset stewardship incentive index (ASII)	Weighted index comprising:	National <sup>2</sup>
		Track geometry index (20%); Broken rails (15%);	
		L2 exceedances (15%);	
		Points/track circuit failures (10%);	
		Signalling failures (20%);	
		Electrification failures (10%); and	
MI	Broken Rails	Structures and earthworks TSRs (10%).  Number of broken rails	National; 8 operating routes
M2	Rails defects	Number of isolated rail defects	National; 8 operating routes
		Length of continuous rail defects	National; 8 operating routes
M3	Track Geometry	Standard deviations - 35m top; 35m	National <sup>3</sup>
		alignment; 70m top; 70m alignment. Vertical and horizontal deviation	
		Poor track geometry	National; 8 operating routes
		Speed band data	National <sup>3</sup>
M5 M4	Level 2 exceedances  Condition of Asset TSRs	Level 2 exceedances per track mile	National; 8 operating routes
1*1 <del>4</del>	Condition of Asset 13Rs	Number and severity of Track TSRs  Number and severity of Structures TSRs	National; 8 operating routes National; 8 operating routes
		rumber and serving erea actailed rend	rational, o operating routes
		Number and severity of Earthworks TSRs	National; 8 operating routes
M6	Earthwork failures	Number of embankment or cutting sites	National; 8 operating routes
		which have become unstable	
M8	Bridge condition	Number of bridges examined and assessed	National
M9	Signalling failures	condition grade  Number of signalling failures causing delay	National; 8 operating routes
		of more than 10 minutes per incident	7 1 8
MIO	Signalling asset condition	Number of assets assessed and assessed	National; 8 operating routes
MII	AC Traction power incidents	condition grade  Number of OLE failures resulting in train	National; 8 operating routes
	7 to Tracaon portor margonia	delays of more than 500 minutes	reactional, o operating routes
MI2	DC traction power incidents	Number of conductor rail failures resulting in train delays of more than 500 minutes	National; 8 operating routes
		·	
MI3	AC electrification condition	Assessed condition grade of AC traction feeder stations and track sectioning points	National; territory
		reeder stations and track sectioning points	
MI4	DC electrification condition	Assessed condition grade of DC traction	National; territory
MI5	AC contact system condition	substations Assessed condition grade of AC contact	National; territory
h41.4	DC	systems	Ni-sili si
MI6	DC contact system	Assessed condition grade of DC contact systems	ivauonai; territory
MI7	Station condition index	Assessed average condition grade of	National; station category (A-F). Annex
		stations where trains make timetabled	to show score for all stations, grouped b
		stops	category, but only on electronic version.
MI8	Station facilities	Level of facilities present at stations	National; station category; theme
MI9	Light maintenance depots (LMDs)	Assessed average condition grade of LMDs	National
ORR KPI 5	Asset quality index	Weighted index comprising:	
		T	
		Track geometry (30%);	
		Structures and earthworks TSRs (10%); Track condition TSRs (20%);	
		Ballast condition (10%);	
		Structures subject to special examination	
	İ	(10%);	
		Structures condition marking index; and	
		Structures condition marking index; and	

Section 4 - A	Activity volumes		
M20	Rail renewals	Length of track (kms) where re-railing ahs	National; 8 operating routes
	·	been carried out	
M21	Sleeper renewals	Length of track (kms) where re-sleepering has been carried out, by type	National; 8 operating routes
M22	Ballast renewals	Length of track (kms) where re-ballasting has been carried out, by type	National; 8 operating routes
M25	S&C renewals	Number of S & C units renewed, including	National; 8 operating routes
M24	Signalling renewals	Number of SEUs renewed	National; 8 operating routes
M23	Bridge renewals and remediation	Number and area of bridge decks subject to renewal or remediation where total cost is >f 100k	National; territory
M26	Culvert renewals and remediation	Number of culverts renewed or where major components replaced at a cost >£50k	National; territory
M27	Retaining wall renewals		National; territory
M28	Earthworks remediation	Number of earthwork schemes subject to remediation where cost >£100k	National; territory
M29	Tunnel renewals	Number of remediation schemes on tunnels where cost >£50k	National; territory
ORR KPI 6	Activity volumes: % of activity compared with plan		National
Section 5 –	Capability		
CI	Linespeed	Length of running track (kms) by speed	National; changes by 8 operating route
C2	Gauge	band and changes to the network  Length of route (kms) capable of accepting different freight vehicle by gauge band	National; changes by 8 operating route
C3	Route availability	Length of track (kms) capable of accepting loaded vehicle types by RA value	National; changes by 8 operating route
C4	Electrified track capability	Length of electrified track (kms) by type	National; changes by 8 operating route
		Length of electrified track (kms) by type	National; changes by 8 operating route
Section 6 – l	Finance and efficiency	Length of electrified track (kms) by type	National; changes by 8 operating route
Section 6 – I ORR KPI 7	Finance and efficiency Unit cost efficiency gain		
Section 6 – l	Finance and efficiency	Length of electrified track (kms) by type  As per ORR KPI 8	National; changes by 8 operating route  National
Section 6 – I ORR KPI 7	Finance and efficiency Unit cost efficiency gain		National National; 26 strategic routes when appropriate; major projects, with specific reference to WCRM, southern region
Section 6 – I ORR KPI 7	Finance and efficiency Unit cost efficiency gain Expenditure variance	As per ORR KPI 8  Comparison of out-turn expenditure with	National National; 26 strategic routes when appropriate; major projects, with specific reference to WCRM, southern region new trains programme, telecoms project (FTN and GSM-R) and pollution
ORR KPI 8  ORR KPI 9  NR KPI 9	Finance and efficiency Unit cost efficiency gain Expenditure variance Reconciliation statement against the 2004 business plan.  Debt to RAB ratio Network Rail financial efficiency index (FEI)	As per ORR KPI 8  Comparison of out-turn expenditure with business plan (31 Mar 2004) forecast  As per ORR KPI 9  The sum of: Operating costs; Total expenditure on maintenance; Total expenditure on plain line track renewals.	National  National; 26 strategic routes when appropriate; major projects, with specific reference to WCRM, southern region new trains programme, telecoms project (FTN and GSM-R) and pollution prevention at LMDs.
ORR KPI 9  ORR KPI 9  NR KPI	Finance and efficiency Unit cost efficiency gain Expenditure variance  Reconciliation statement against the 2004 business plan.  Debt to RAB ratio Network Rail financial efficiency index (FEI)	As per ORR KPI 8  Comparison of out-turn expenditure with business plan (31 Mar 2004) forecast  As per ORR KPI 9  The sum of: Operating costs; Total expenditure on maintenance; Total expenditure on plain line track renewals. Growth in actual passenger train miles and farebox revenue	National  National; 26 strategic routes when appropriate; major projects, with specific reference to WCRM, southern region new trains programme, telecoms project (FTN and GSM-R) and pollution prevention at LMDs.  National
ORR KPI 9  ORR KPI 9  NR KPI  NR KPI*	Finance and efficiency Unit cost efficiency gain Expenditure variance Reconciliation statement against the 2004 business plan.  Debt to RAB ratio Network Rail financial efficiency index (FEI)  RAB adjustment for passenger volume incentives  RAB adjustment for freight volume incentives	As per ORR KPI 8  Comparison of out-turn expenditure with business plan (31 Mar 2004) forecast  As per ORR KPI 9  The sum of: Operating costs; Total expenditure on maintenance; Total expenditure on plain line track renewals. Growth in actual passenger train miles and farebox revenue Growth in freight train miles and gross tonne miles	National  National; 26 strategic routes when appropriate; major projects, with specific reference to WCRM, southern region new trains programme, telecoms project (FTN and GSM-R) and pollution prevention at LMDs.  National  National
ORR KPI 9  ORR KPI 9  NR KPI	Finance and efficiency Unit cost efficiency gain Expenditure variance  Reconciliation statement against the 2004 business plan.  Debt to RAB ratio Network Rail financial efficiency index (FEI)	As per ORR KPI 8  Comparison of out-turn expenditure with business plan (31 Mar 2004) forecast  As per ORR KPI 9  The sum of: Operating costs; Total expenditure on maintenance; Total expenditure on plain line track renewals. Growth in actual passenger train miles and farebox revenue Growth in freight train miles and gross	National  National; 26 strategic routes when appropriate; major projects, with specific reference to WCRM, southern region new trains programme, telecoms project (FTN and GSM-R) and pollution prevention at LMDs.  National
ORR KPI 9  ORR KPI*  NR KPI*	Finance and efficiency Unit cost efficiency gain Expenditure variance Reconciliation statement against the 2004 business plan.  Debt to RAB ratio Network Rail financial efficiency index (FEI)  RAB adjustment for passenger volume incentives RAB adjustment for freight volume incentives Overall cost control	As per ORR KPI 8  Comparison of out-turn expenditure with business plan (31 Mar 2004) forecast  As per ORR KPI 9  The sum of: Operating costs; Total expenditure on maintenance; Total expenditure on plain line track renewals. Growth in actual passenger train miles and farebox revenue Growth in freight train miles and gross tonne miles	National  National; 26 strategic routes when appropriate; major projects, with specific reference to WCRM, southern region new trains programme, telecoms project (FTN and GSM-R) and pollution prevention at LMDs.  National  National
ORR KPI 9  ORR KPI*  NR KPI*	Finance and efficiency Unit cost efficiency gain Expenditure variance Reconciliation statement against the 2004 business plan.  Debt to RAB ratio Network Rail financial efficiency index (FEI)  RAB adjustment for passenger volume incentives  RAB adjustment for freight volume incentives	As per ORR KPI 8  Comparison of out-turn expenditure with business plan (31 Mar 2004) forecast  As per ORR KPI 9  The sum of: Operating costs; Total expenditure on maintenance; Total expenditure on plain line track renewals. Growth in actual passenger train miles and farebox revenue Growth in freight train miles and gross tonne miles	National  National; 26 strategic routes when appropriate; major projects, with specific reference to WCRM, southern region new trains programme, telecoms project (FTN and GSM-R) and pollution prevention at LMDs.  National  National
ORR KPI 9  ORR KPI*  NR KPI*  NR KPI*	Finance and efficiency Unit cost efficiency gain Expenditure variance Reconciliation statement against the 2004 business plan.  Debt to RAB ratio Network Rail financial efficiency index (FEI)  RAB adjustment for passenger volume incentives RAB adjustment for freight volume incentives Overall cost control  Customer reasonable requirements Progress with CRRs	As per ORR KPI 8  Comparison of out-turn expenditure with business plan (31 Mar 2004) forecast  As per ORR KPI 9  The sum of: Operating costs; Total expenditure on maintenance; Total expenditure on plain line track renewals. Growth in actual passenger train miles and farebox revenue Growth in freight train miles and gross tonne miles % overspend/ underspend against budget  Number at start of year; number received during the year; number completed or	National  National; 26 strategic routes when appropriate; major projects, with specific reference to WCRM, southern region new trains programme, telecoms project (FTN and GSM-R) and pollution prevention at LMDs.  National  National
ORR KPI 9  ORR KPI*  NR KPI*  NR KPI*	Finance and efficiency Unit cost efficiency gain Expenditure variance Reconciliation statement against the 2004 business plan.  Debt to RAB ratio Network Rail financial efficiency index (FEI)  RAB adjustment for passenger volume incentives RAB adjustment for freight volume incentives Overall cost control	As per ORR KPI 8  Comparison of out-turn expenditure with business plan (31 Mar 2004) forecast  As per ORR KPI 9  The sum of: Operating costs; Total expenditure on maintenance; Total expenditure on plain line track renewals. Growth in actual passenger train miles and farebox revenue Growth in freight train miles and gross tonne miles % overspend/ underspend against budget  Number at start of year; number received during the year; number completed or withdrawn; number at end of year.	National  National; 26 strategic routes when appropriate; major projects, with specific reference to WCRM, southern region new trains programme, telecoms project (FTN and GSM-R) and pollution prevention at LMDs.  National  National
ORR KPI 9  ORR KPI*  NR KPI*  NR KPI*  Section 7 – 0	Finance and efficiency Unit cost efficiency gain Expenditure variance Reconciliation statement against the 2004 business plan.  Debt to RAB ratio Network Rail financial efficiency index (FEI)  RAB adjustment for passenger volume incentives RAB adjustment for freight volume incentives Overall cost control  Customer reasonable requirements Progress with CRRs  Customer Satisfaction Passenger complaints	As per ORR KPI 8  Comparison of out-turn expenditure with business plan (31 Mar 2004) forecast  As per ORR KPI 9  The sum of: Operating costs; Total expenditure on maintenance; Total expenditure on plain line track renewals. Growth in actual passenger train miles and farebox revenue Growth in freight train miles and gross tonne miles % overspend/ underspend against budget  Number at start of year; number received during the year; number completed or withdrawn; number at end of year.	National National; 26 strategic routes when appropriate; major projects, with specific reference to WCRM, southern region new trains programme, telecoms project (FTN and GSM-R) and pollution prevention at LMDs. National National National

#### Notes:

<sup>&</sup>lt;sup>1</sup> KPI numbers are generally national, rather than disaggregated. Network Rail will provide disaggregated data where appropriate, and a robust return is available.

<sup>&</sup>lt;sup>2</sup> ASII is not disaggregable by 8 operating route, as the baselines (for 6.0a and 6.9) set by ORR are only at national level. We are content to provide ORR (and reporter) with disaggregated actuals by 8 operating routes, separately, to facilitate ORR's further calculation.

<sup>&</sup>lt;sup>3</sup> Track geometry (standard deviations and speed band data) has previously been reported at national level, against targets which are expressed in network-wide terms. As per note 2, which applies specifically to the track geometry part of the ASII measure, we are content to provide ORR (and reporter) with disaggregated actuals by 8 operating routes, separately, to facilitate ORR's further calculation.



1 WATERHOUSE SQUARE, 138-142 HOLBORN, LONDON ECIN 2TQ

Switchboard 020 7282 2000 • Fax 020 7282 2040 • Website http://www.rail-reg.gov.uk

OFFICE of
RAIL REGULATION

Steve Bottom Esq Regulatory Business Manager Network Rail Infrastructure Limited 40 Melton Street London NW1 2EE 28 April 2005

Dear Steve

### APPROVAL OF THE FORM OF THE 2005 ANNUAL RETURN

- 1. Further to your letter of 28 April 2005, I am authorised to confirm that in accordance with paragraph 6 of Condition 15 of Network Rail's network licence ("the Condition") the Office of Rail Regulation approves the form of the 2005 Annual Return ("the Return") enclosed with your letter.
- 2. The Return should be submitted to ORR, as required by the Condition, by 1 July 2005.
- 3. A copy of this letter has been placed on the Public Register of the Office of Rail Regulation.

HEDLEY CALDERBANK

HEDLEY CALDERBANK

Deputy Director, Infrastructure Regulation
Telephone 020 7282 2063 • Fax 020 7282 2042 • E-mail hedley.calderbank@orr.gsi.gov.uk

