

Route Plans 2007
Route 10
North Trans-Pennine,
North and
West Yorkshire

Network Rail



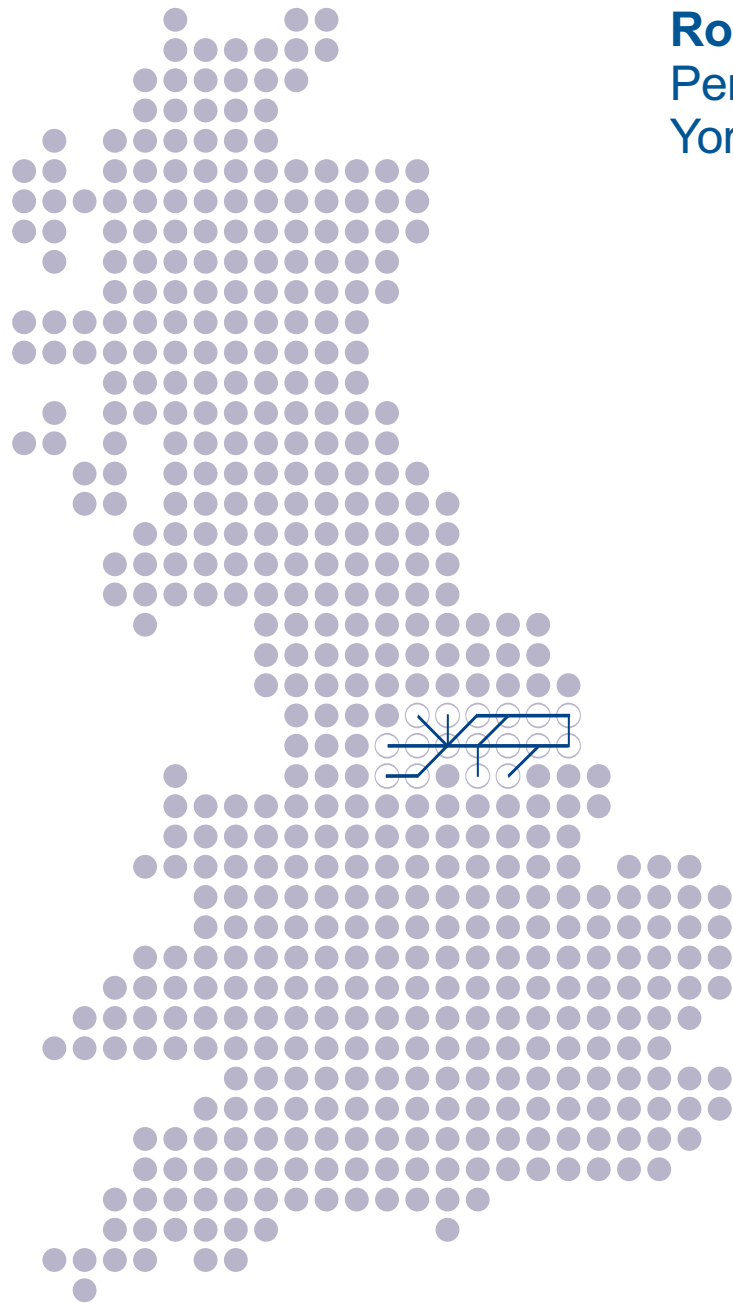
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Route 10 North Trans-Pennine, North and West Yorkshire

10 10

Today's route

The route comprises the following groups of lines. The relevant Strategic Route Section is shown in brackets:

- cross country – from Stalybridge to Hull and Scarborough via Leeds, excluding a short section of the East Coast Main Line around York (10.01, 10.05, 10.06, 10.07 and 10.12);
- urban lines – a selection of routes centred on Leeds carrying PTE sponsored passenger services and, in many cases, freight as well (10.03, 10.04, 10.09 and 10.10);
- rural lines – mainly in East and North Yorkshire carrying local services and, in some cases, freight traffic (10.02, 10.08 and 10.11); and
- freight only lines – mixture of freight only through lines, sometimes used for passenger train diversions, and branches (10.13 and 10.14).

Route context

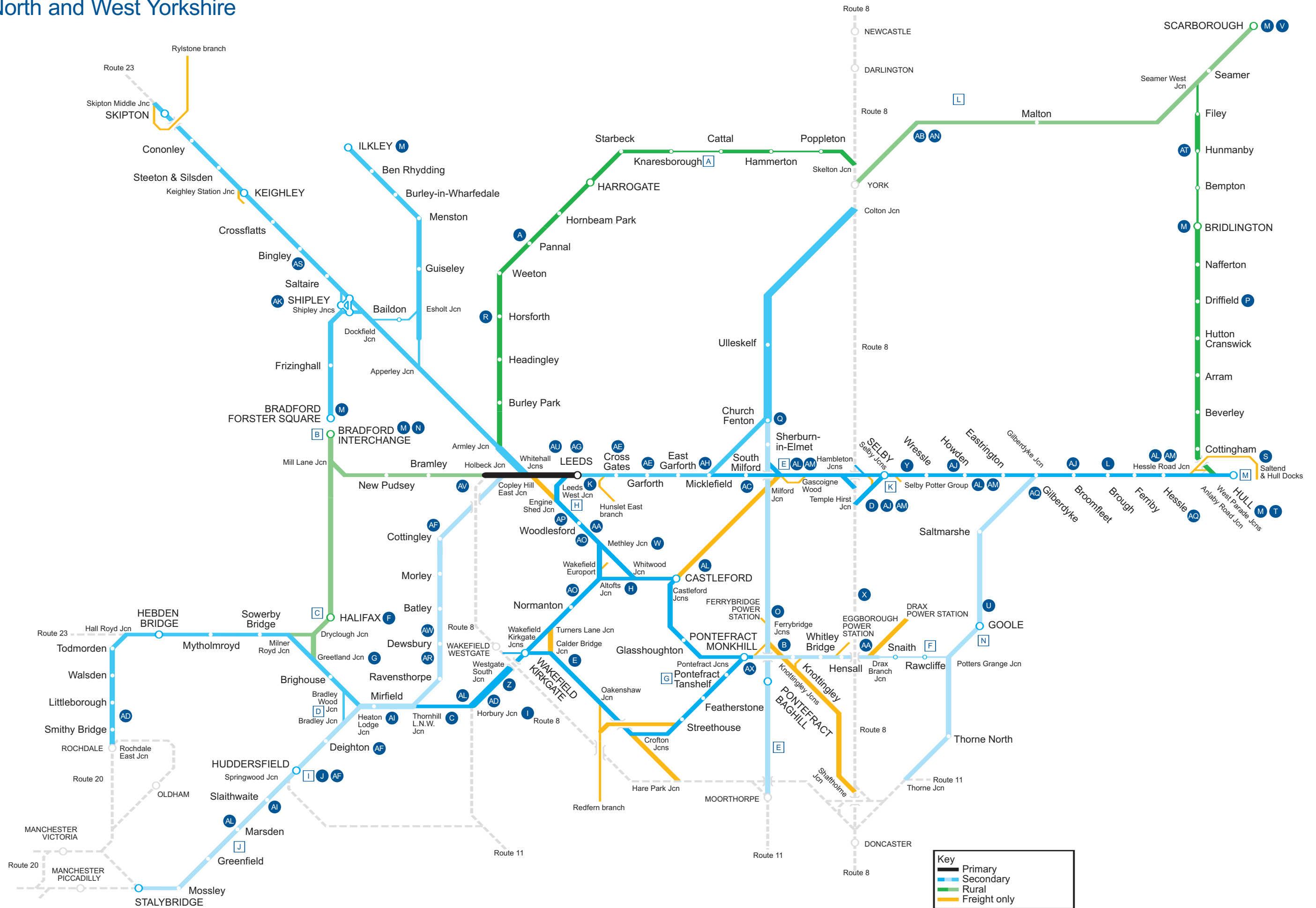
The route provides the primary corridor across the Pennines connecting the main conurbations of Manchester, Bradford and Leeds. These major cities are then linked by the route with Hull, York and Scarborough, and via Route 8, to the North East. There are also several local lines which add to the spread of the rail network in the area. The route mirrors an extensive but heavily congested road network.

There is a variety of passenger and freight traffic on the route, providing transport services to local communities, as well as connecting key city

destinations on and off the route. It serves the three Aire Valley power stations, Hull Docks and a variety of other freight terminals, and is also used by through freight traffic.

Work is underway on the Yorkshire and Humber Route Utilisation Strategy (RUS), an industry document covering this route and Route 11. The DfT's Regional Planning Assessment for the Yorkshire and Humber Region which will feed into the Yorkshire and Humber RUS, is close to conclusion.

Route 10 North Trans-Pennine, North and West Yorkshire



Passenger and freight demand

This route links the key cities and towns in the northern half of the Yorkshire and Humber Region and also provides key links to other major cities and towns outside the route. It is therefore used by a mixture of local and longer distance passenger services. There are many medium distance passenger journey opportunities on the route for both work and leisure use. Parts of this route are also used to provide key freight links for traffic to and from the port of Hull.

Cross-country services operate between Manchester and Leeds, continuing to Hull, Scarborough and the North East and between the Midlands, Leeds, the North East and Scotland.

Local passenger services are of two types; regular PTE sponsored services in West Yorkshire and more rural services in East and North Yorkshire. The PTE services, in particular, have continued to see a large increase in patronage.

This route forms an integral part of the journey for many long distance rail freight flows, particularly the line from Colton Junction via Ferrybridge to Moorthorpe which connects the North East with the Midlands.

There are also several key freight markets located on the route itself. Some of the most significant freight flows are those of coal traffic from Ayrshire and the East Coast ports bound for the three Aire Valley power stations of Drax, Eggborough and Ferrybridge which provide more than 25% of England's electricity, and also to power stations in the Trent Valley. The coal from Ayrshire operates via the Settle and Carlisle line and then traverses the route from Skipton, via Leeds west end and then via Woodlesford. There is also increasing coal tonnage originating on this route at Hull Docks for the same power stations.

Other notable freight flows include intermodal traffic to and from Wakefield Europort, Selby (Potter Group) and Stourton Freightliner terminal, near Leeds. There is also aggregates traffic from Rylstone quarry near Skipton.

Current services

Figure 1 shows the current level of service to Leeds from principal stations.

Northern Rail, First Transpennine Express, Great North Eastern Railway (GNER), Hull Trains, Virgin Cross Country, Midland Mainline and West Coast Railway Company operate passenger services on this route. Freight trains are operated by English Welsh & Scottish Railway Ltd, Freightliner Ltd, and Freightliner Heavy Haul Ltd.

The core First Transpennine Express operation is between Leeds and Manchester with four tph for most of the day. These extend east of Leeds, one per hour to each of Scarborough, Middlesbrough and Newcastle (all via York) and Hull. This corridor also carries a number of local services operated by Northern Rail including hourly services from Huddersfield to each of Leeds, and Manchester, and a twice hourly service eastwards from Leeds with one train to York (from Blackpool via Bradford) and one to Selby. Additional services operate during peak times.

Northern Rail also operates four tph from Leeds to Bradford Interchange including the Blackpool to York trains and a half-hourly service from Leeds to Manchester via Rochdale. Other services from Leeds are a half-hourly service to Knaresborough via Harrogate, with one train per hour extending to York, a half-hourly service to Castleford extended alternately to Knottingley and Sheffield via Barnsley. There is also an hourly semi-fast service to Sheffield via Wakefield Kirkgate and Barnsley.

Figure 1 Current train service level (trains per hour)

| Originating station | tph to Leeds |
|----------------------|------------------------|
| Huddersfield | 6 peak/5 off peak |
| Harrogate | 4 peak/2 off peak |
| Skipton | 4 peak/2 or 3 off peak |
| Ilkey | 3 peak/2 off peak |
| Castleford | 2 |
| Hull | 1 |
| Manchester | 4 via Diggle |
| Bradford Interchange | 4 |
| Scarborough | 1 |

The route also has a group of Northern Rail electric local services connecting Leeds, Ilkley, Bradford Forster Square and Skipton, all of which operate on a half-hourly basis. These are supplemented by services operating at slightly more than two-hourly frequencies beyond Skipton to either Carlisle or Lancaster.

There is also an hourly West Yorkshire PTE service Wakefield Kirkgate and Knottingley via Pontefract Monkhill.

Away from West Yorkshire, Hull sees half-hourly Northern Rail trains from South Yorkshire and half-hourly off-peak (with additional peak services) from the Wolds Coast line from Scarborough and Bridlington. There are also trains roughly every hour between York and Selby with half of these extending to/from Hull.

As well as the hourly First Transpennine Express service between Scarborough and Liverpool, the section from Scarborough to York is used by

additional services in the summer including a First Transpennine Express shuttle service and regular steam hauled services operated by West Coast Railway Company. On a summer Saturday Midland Mainline operate a service to Scarborough.

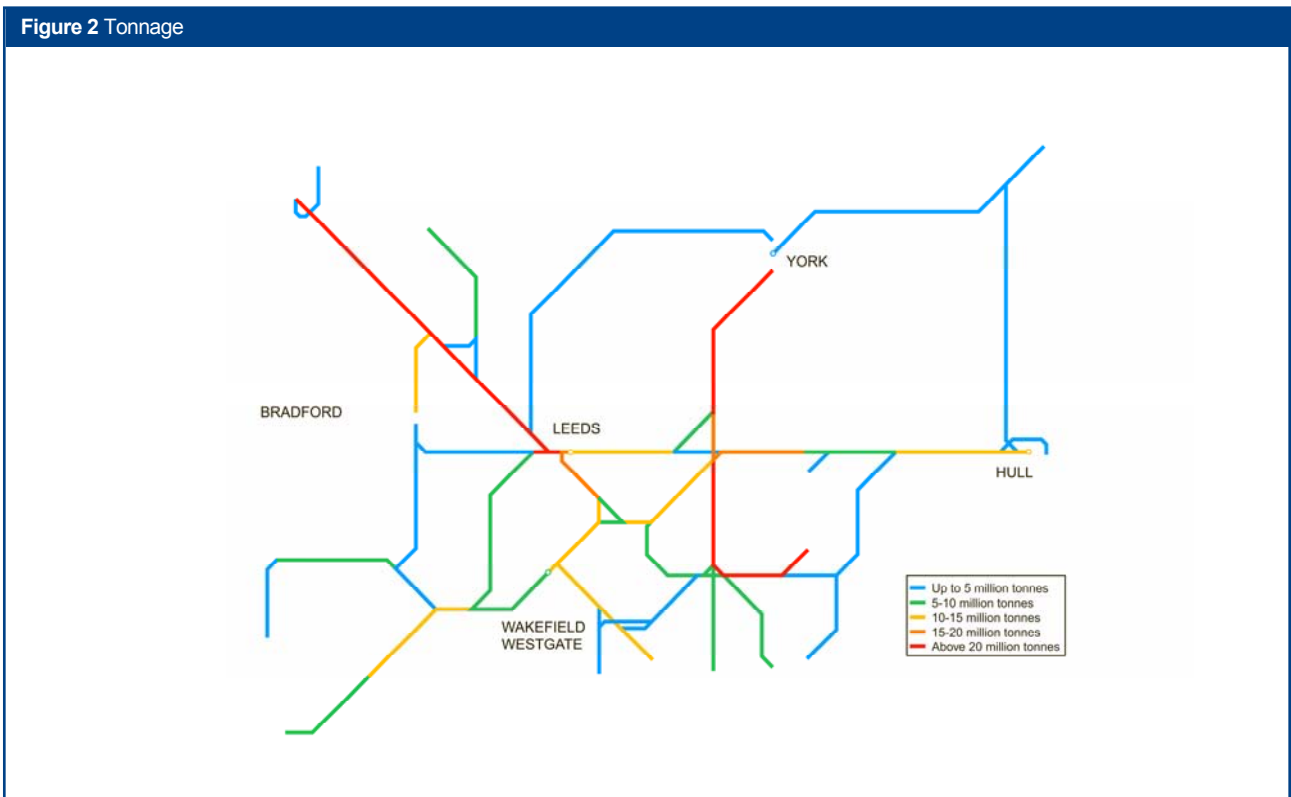
Hull Trains operates seven long distance trains each way per day between Hull and London King's Cross. GNER operates all the trains between Leeds and London King's Cross, and a handful of trains on other parts of the route, with Midland Mainline operating a few trains per day between Leeds and London St. Pancras via Sheffield.

The other main passenger service is the hourly Virgin Cross Country service between Scotland, the North East and the Midlands and South West.

Freight services are described in the previous section.

Figure 2 shows the tonnage levels on the route.

Traffic volumes are summarised in Figure 3.



| | Passenger | Freight | Total |
|------------------------------------|-----------|---------|-------|
| Train km per year (millions) | 19 | 3 | 22 |
| Train tonne km per year (millions) | 2,376 | 3,134 | 5,510 |

Current infrastructure capability

The following maps set out the capability of the current network.

Figure 4 Line speed

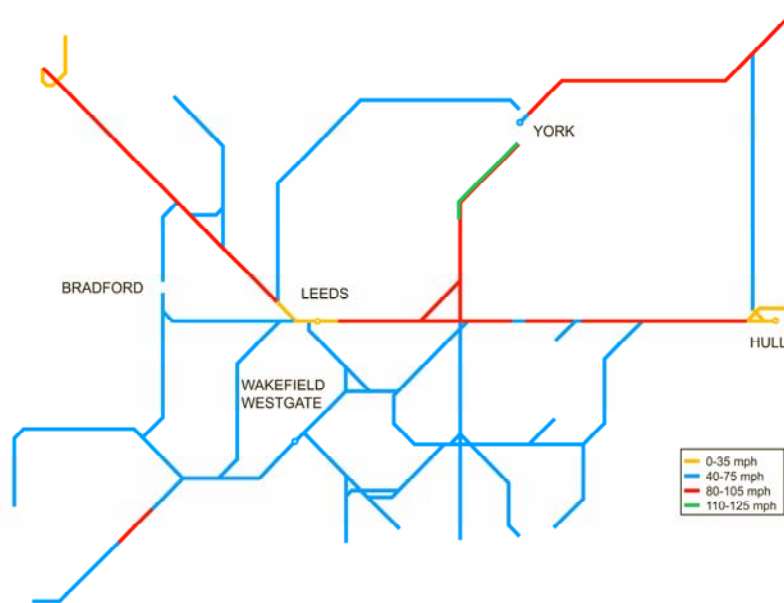


Figure 5 Electrification

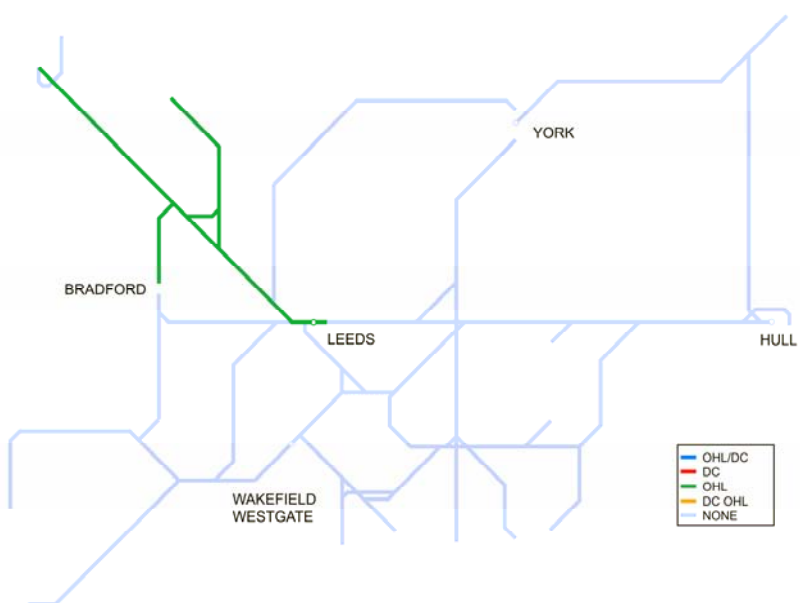


Figure 6 Route availability

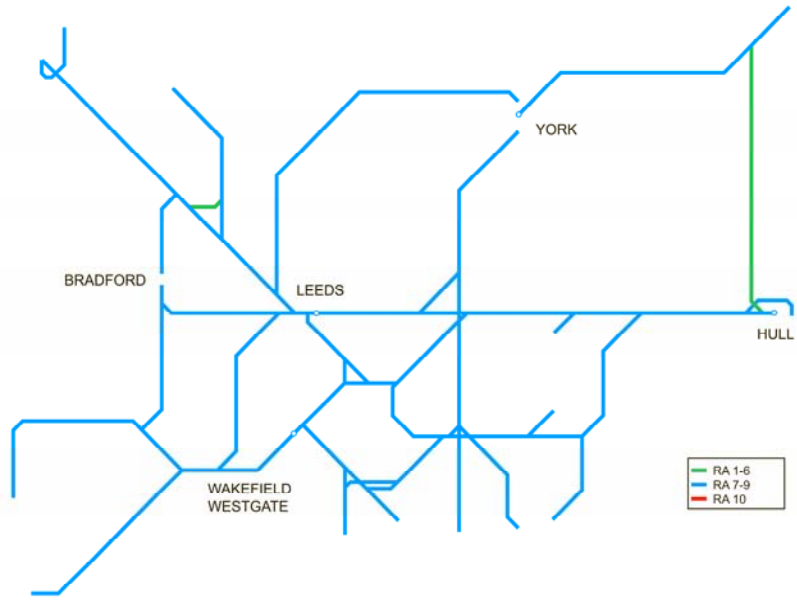
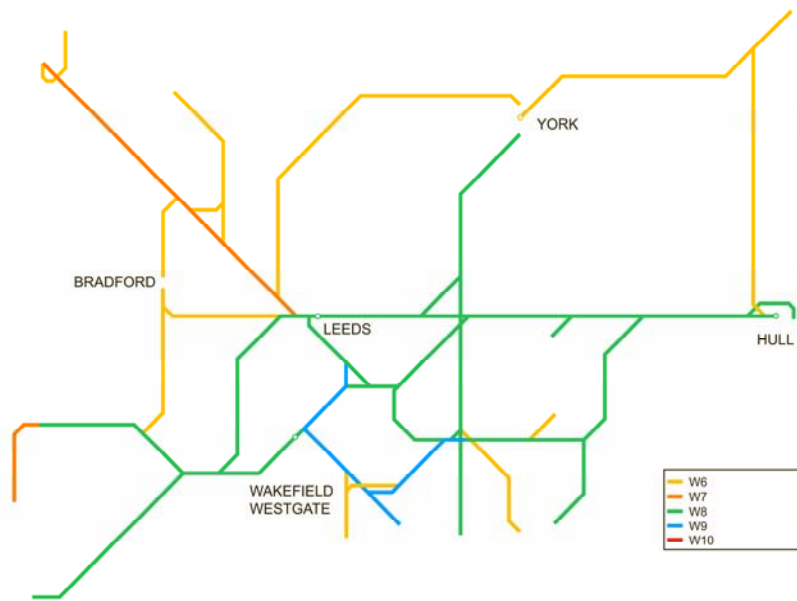


Figure 7 Gauge



Current capacity

There are capacity issues on the route, particularly in the Leeds area. Current flows to and from Leeds at peak times are currently close to capacity.

There are several major capacity constraints on the route:

- Leeds station area: much of the additional capacity provided by the Leeds 1st scheme has now been used;
- Leeds – Micklefield Junction – Church Fenton: busy two track railway with a mixture of fast and stopping services and no overtaking facilities;
- Leeds to Skipton: another busy two track section with stopping and semi-fast passenger trains and heavy freight services, featuring a busy 'at grade' triangular junction at Shipley;
- Leeds – Huddersfield – Stalybridge: largely a two track route with limited overtaking facilities and a mixture of fast and slower services;
- Hull to Gilberdyke; another two track railway with a variety of traffics; and
- Hull Docks branch; partly single track using the unusual Divisible Train Staff method of operation.

Figure 8 shows the current train service level in key sections of the route.

Current performance

Figure 9 shows the current PPM for the main TOCs running along the route

The capacity constrained lines listed above also cause performance problems when trains are running out of course, particularly when long distance services are involved.

The route has recently experienced an significant increase in the number of cable theft incidents which is having a major impact on performance.

Future requirements

Strategic direction

The Yorkshire & Humber RUS will aim to make effective use and development of the route capacity available, consistent with likely availability of funding. DfT Rail is close to finalising its Regional Planning Assessment for the Yorkshire & Humber Region which covers much of this route and will be a key input to the RUS.

Future demand

Urban and regional journeys into the major conurbations are expected to continue growing. In particular, demand growth on the cross-Pennine services operating through Manchester and Leeds to Hull, Scarborough and the North East are expected to be stimulated further by the recent introduction of new Class 185 units, which offer improved passenger comfort and have been able to offer some improved journey times.

Passenger demand (journeys) is forecast by the industry models to grow by about 2 per cent per annum. However, given that past growth has been significantly higher, the RUS will try to establish an upper bound for likely future growth.

Significant freight growth is expected once the scheme to upgrade the Hull Docks branch is implemented.

Figure 8 Current train service level (peak trains per hour)

| Route section | Main Lines |
|--------------------------------------|------------|
| Neville Hill – Micklefield | 9 |
| Wortley Junction – Apperley Junction | 9 |
| Bradley Wood Junction – Huddersfield | 8 |
| Gilberdyke – Hessle Road Junction | 6 |

Figure 9 Current PPM MAA (2006/07)

| TOC | MAA | As at period |
|----------------------|-------|--------------|
| GNER | 83.6% | 11 |
| Northern Rail | 87.2% | 11 |
| Transpennine Express | 89.2% | 11 |
| Virgin Cross Country | 83.7% | 11 |
| Midland Mainline | 92.6% | 11 |

Future services

Figure 10 indicates percentage change in tonnage to 2016.

Northern Rail and DfT are in discussions with us regarding a new hourly Leeds to Nottingham service via Barnsley and Sheffield.

Open access operator Grand Central has aspirations to run four trains per day each way between Bradford and London King's Cross via Halifax and Wakefield Kirkgate.

Various stakeholders are interested in improving services in the upper Calder Valley, including improving journey times between Bradford and Manchester and faster access to Leeds. Northern Rail and ourselves are involved in a study on this.

Future capability

The reconstruction of Selby canal bridge will improve asset condition and route capability by removing an onerous traffic restriction for heavy axle weight freight.

Redevelopment of Leeds station and a new southern entrance would improve station facilities and footfall capacity and reduce passenger access times to the development area to the south of the station.

A further station scheme being developed is the extension of Selby Platform 3 to cater for 4-car terminating trains.

A programme of platform lengthening in West and South Yorkshire would allow services on York/Selby – Leeds, Huddersfield – Leeds, Sheffield – Barnsley – Leeds, Knottingley – Leeds and Sheffield – Moorthorpe – Leeds (via Route 8) to operate with four 23m vehicles during the peaks in order to meet anticipated growth.

We are developing the proposal for a parkway station at Micklefield close to the A1/M1 link road, at which most long distance services could call. This would be likely to generate significant additional passenger journeys.

New stations are proposed at Kirkstall Forge, Apperley Bridge and Low Moor to be funded by a third party.

A number of routes are being considered for clearance to W10 gauge to permit the carriage of 9' 6" containers on standard deck height wagons. This would contribute to a network connecting terminals and ports in the Region with other parts of the country. It would also provide some diversionary gauge cleared routes for the East Coast Main Line.

Extension of the proposed Neville Hill to Hambleton electrification scheme (being considered in the

Figure 10 Tonnage growth

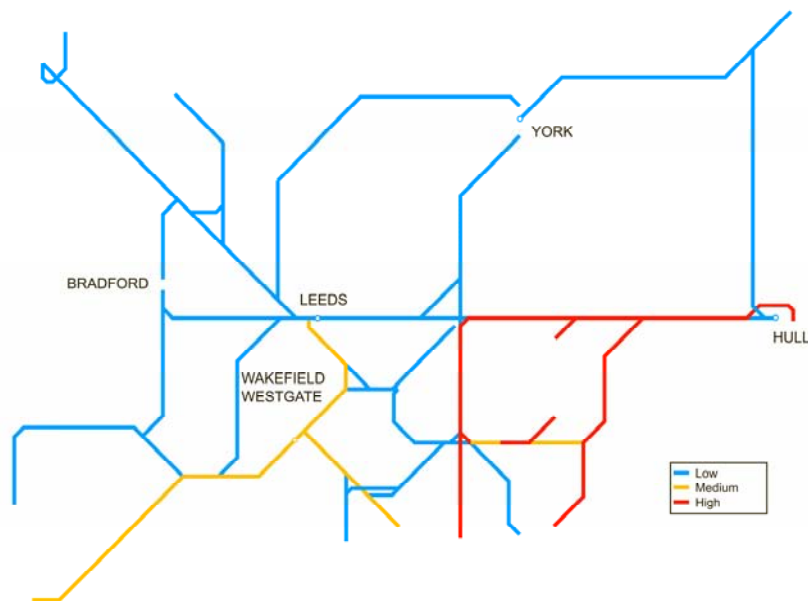


Figure 11 Forecast reduction in delay minutes

| | 2007/08 | 2008/09 |
|------------------------------|---------|---------|
| % reduction in delay minutes | 15% | 22% |

ECML RUS) to Selby and Colton Junction would allow the PTE sponsored services east of Leeds to be accelerated and operate as a shuttle.

Fragile routes

Network Rail engineers have identified a set of 'fragile routes' across the country where the addition of any further loco hauled traffic would have a significant impact on the residual life of track and/or structures.

Through the Freight RUS process, the rail freight industry has recently provided a set of 10 year traffic forecasts, and we are currently assessing their implications. The key route section within this route that has been identified as a fragile route and has clearly defined additional tonnage/train numbers projected by the industry is Drax Junction – Goole.

Future capacity

The RUS will look at options to meet growth but it is anticipated that these will largely focus on train lengthening for peak services. From DfT's RPA work, one of the biggest challenges will be to accommodate growth on the Aire and Wharf Valley services. The RUS is also likely to examine how additional trains could operate in the Calder Valley.

It is also possible that the former North Trans-Pennine Upgrade proposals will be re-examined to improve Leeds to Manchester journey times. It would also allow improved journey times for longer distance journeys using this core section of the route. This scheme would involve line speed increases and capacity improvements, the latter to allow local passenger and freight service paths to be maintained alongside faster First Transpennine Express services.

Signalling headways are adequate on the majority of routes. Significant increases in the number of train paths would require improvements to junctions, and additional tracks on most routes.

Line speed increases are being examined between Hull and Selby but, together with the enhancement of the Hull Docks branch, capacity improvements will be required on this route. Enhancements on the back of planned signalling renewals between Hull and Gilberdyke would improve capacity for both passenger and freight services.

Future performance

Figure 11 shows the forecast reduction in Network Rail delay minutes compared with 2006/07.

Network Rail is managing a number of initiatives, involving considerable resources, to combat the huge rise in cable theft incidents.

A number of opportunities have been identified for modest infrastructure enhancements to improve performance that could be implemented in conjunction with planned renewal projects, whilst improved access and egress at Neville Hill depot is being developed to improve the regulation of trains in the Leeds east area.

Figure 12 shows the forecast PPM for the main TOCs running along the route.

Engineering access

There are currently no major engineering access issues for the route.

Opportunities and challenges

From the scoping work, the key challenges that are likely to arise in the Yorkshire and Humber RUS are:

- meeting continuing commuter growth;
- improving services between City Regions; and
- improving Calder Valley services.

Figure 12 Forecast PPM MAA

| TOC | 2007/08 | 2008/09 |
|----------------------|---------|---------|
| GNER | 85.0% | 87.2% |
| Northern Rail | 88.4% | 90.0% |
| Transpennine Express | 90.9% | 91.5% |
| Virgin Cross Country | 85.1% | |
| Midland Mainline | 92.7% | |

Delivering future requirements Expenditure

Figure 13 shows the planned level of expenditure on renewals on this route over the next two years. The most significant individual renewal items are outlined in the sections

which follow. However, the precise timing and scope of renewals remains subject to review to enable us to meet our overall obligations as efficiently as possible consistent with the reasonable requirements of operators and other stakeholders.

Figure 13 Forecast expenditure

| £m (2006/07 prices) | 2007/08 | 2008/09 |
|------------------------------|-----------|-----------|
| Renewals | | |
| Track | | |
| Plain line | 34 | 27 |
| Switches and crossings | 5 | 8 |
| Other | 0 | – |
| Track total | 39 | 34 |
| Civils | | |
| Underbridges | 12 | 5 |
| Overbridges | 2 | 0 |
| Bridgeguard 3 | 1 | 1 |
| Footbridges | 0 | 1 |
| Earthworks | 2 | 1 |
| Tunnels | 3 | 2 |
| Culverts | 0 | 0 |
| Retaining walls | 0 | 0 |
| Major structures | 0 | 0 |
| Other | 0 | 0 |
| Civils total | 21 | 10 |
| Signalling | | |
| Resignalling | 5 | 4 |
| Minor works/other | 5 | 2 |
| Signalling total | 10 | 5 |
| Electrification | | |
| AC systems | | |
| HV switchgear | 2 | – |
| OLE re-wiring | 0 | 0 |
| Electrification total | 2 | 0 |
| Telecoms | | |
| Other | 0 | – |
| Telecoms total | 0 | – |

| | | |
|---|-----------|-----------|
| Operational property | | |
| Stations | | |
| Managed | 1 | 1 |
| Franchised | 1 | 1 |
| Depots | | |
| Light maintenance | 2 | – |
| Lineside buildings | 0 | – |
| Operational property total | 5 | 1 |
| Plant and machinery | | |
| Fixed plant | | |
| Point heating | 0 | – |
| Signal supply points | 0 | 0 |
| Other | 1 | 0 |
| Plant and machinery total | 1 | 1 |
| Total Renewals | 79 | 52 |
| Enhancements (funded by) | | |
| Network Rail | | |
| Planned | | |
| LNE AHB road modifications / Bainton Gr | 0 | 1 |
| Other | 0 | 0 |
| Total | 0 | 2 |
| Network Rail (RAB) | | |
| Planned | | |
| Church Fenton S&C line speed improvements | 0 | 5 |
| Hull docks branch capacity enhancements | 2 | 2 |
| Bradford Mill lane S&C remodelling | 0 | 3 |
| Leeds station southern entrance | 0 | 3 |
| Rigton - Horsforth capacity improvements | 0 | 1 |
| Other | 2 | 4 |
| Total | 5 | 16 |
| Potential schemes | 3 | 23 |
| Total | 8 | 39 |
| Other third party | | |
| Planned | | |
| Hull docks branch capacity enhancements | 7 | 2 |
| Kirkstall Forge and Apperley Bridge - proposed new stations | 0 | 2 |
| Other | 0 | 1 |
| Total | 8 | 4 |
| Potential schemes | 1 | 10 |
| Total | 9 | 14 |
| Total Enhancements | 17 | 54 |

Figure 14 Forecast volumes

| | 2007/08 | 2008/09 |
|---|------------|------------|
| Track | | |
| Plain line (km) | | |
| Rail | 57 | 38 |
| Sleepers | 49 | 36 |
| Ballast | 58 | 43 |
| Total | 164 | 117 |
| Switches & crossings (no.) | | |
| Complete renewal | 12 | 16 |
| S&C (equivalent units) | 12 | 16 |
| Other (km) | | |
| Drainage | 1 | – |
| Civils | | |
| Underbridges (m ²) | 3,259 | 1,177 |
| Overbridges (m ²) | 803 | 90 |
| Bridgeguard 3 (m ²) | 86 | 225 |
| Footbridges (m ² decking area) | 50 | 65 |
| Earthworks (m ² slope surface) | 4,862 | 1,830 |
| Tunnels (m ²) | 2,085 | 2,091 |
| Culverts (m ²) | – | 15 |
| Retaining walls (m ²) | 30 | 160 |
| Signalling | | |
| Resignalling (SEUs) | 193 | 19 |
| Electrification | | |
| AC systems | | |
| HV switchgear (cb) | 48 | – |

The planned volume of renewals is detailed in Figure 14.

It should be noted that in order to manage the deliverability of our civils, track, signalling & electrification plans we have included an element of overplanning in our work banks. As a consequence the sum of our route plans exceeds our plan for the network as a whole. It is likely that a small proportion of the activities in these areas will be replanned to subsequent years.

Maintenance

Figure 15 shows the planned level of expenditure on maintenance on this route over the next two years.

Figure 15 Forecast expenditure

| £m (2006/07 prices) | 2007/08 | 2008/09 |
|---------------------|---------|---------|
| Maintenance | 32 | 30 |

Infrastructure investment

Figure 16 highlights committed schemes that are planned for completion in the financial year shown.

| Project | Project description | Output change | Main asset type(s) | Funding | GRIP stage | Completion year |
|--|--|--|--------------------|------------------------------|------------|-------------------|
| A Platform Extensions York to Leeds via Harrogate (10.02) | Platform extension to accommodate 4 car Sprinter trains | Increased capacity | Station | Funded by West Yorkshire PTE | 8 | Completed |
| B Ferrybridge & Knottingley wire degradation (10.08) | Resignalling | Renewal | Signalling | Network Rail | 8 | Completed |
| AU Leeds (10.01) | Whitehall Road underbridge strengthening | Renewal and improved route capability | Structures | Network Rail | 8 | Completed 2006/07 |
| C Healey Mills (10.09) | Renewal of line side equipment and recontrol of Elland and Greefield signal boxes | Renewal and signal box rationalisation | Signalling | Network Rail | 6 | 2007/08 |
| D Selby Canal Bridge (10.07) | Reconstruction | Renewal and route capability | Structures | Network Rail | 4 | 2007/08 |
| E Wakefield Kirkgate/Oakenshaw wire degradation (10.09) | Resignalling at Oakenshaw and transfer of control from Wakefield Kirkgate to Oakenshaw | Renewal | Signalling | Network Rail | 6 | 2007/08 |
| F Halifax (10.04) | Renewal of S&C | Renewal | Track | Network Rail | 3 | 2007/08 |
| G Greefield & Elland (10.04) | Renewal of signal interlocking | Renewal | Signalling | Network Rail | 5 | 2007/08 |
| H Altofts Junction (10.09) | Renewal of S&C | Renewal | Track | Network Rail | 3 | 2007/08 |
| I Horbury (10.05) | Reballast S&C | Life extension | Track | Network Rail | 4 | 2007/08 |
| J Huddersfield (10.05) | Roof repairs | Renewal | Station | Network Rail | 4 | 2007/08 |

| Project | Project description | Output change | Main asset type(s) | Funding | GRIP stage | Completion year |
|--|--|---------------------------------------|--------------------|------------------------------------|------------|-----------------|
| K Neville Hill (10.06) | Depot Roof Repairs | Renewal | Depot | Network Rail | 4 | 2007/08 |
| L Brough East (10.07) | Renewal of signal interlocking and level crossing Phase 1 | Renewal | Signalling | Network Rail | 5 | 2007/08 |
| M TPWS Optimisation Works (Various) | Relocate TPWS at terminal stations | Improved Performance | Signalling | Network Rail Discretionary Funding | 6 | 2007/08 |
| AS Bingley (10.03) | Strengthening of River Aire underbridge | Renewal and improved route capability | Structures | Network Rail | 4 | 2007/08 |
| AV Leeds (10.04) | Amberley Road underbridge strengthening | Renewal and improved route capability | Structures | Network Rail | 4 | 2007/08 |
| AW Dewsbury (10.05) | Underbridge reconstruction Watergate Road and Webster Hill | Renewal and improved route capability | Structures | Network Rail | 4 | 2007/08 |
| AX Pontefract Monkhill (10.09) | Park Road underbridge reconstruction | Renewal and raising line speed | Structures | Network Rail | 5 | 2007/08 |
| N Bradford Mill Lane (10.04) | Renewal of S&C | Renewal | Track | Network Rail | 3 | 2008/09 |
| O Ferrybridge Jn (10.08) | Renewal of S&C | Renewal | Track | Network Rail | 1 | 2008/09 |
| P Driffield (10.11) | Renewal of S&C | Renewal | Track | Network Rail | 1 | 2008/09 |
| O Church Fenton S&C (10.06) | Renewal | Renewal | Track | Network Rail | 2 | 2008/09 |

Figure 16 Planned Infrastructure investment

| Project | Project description | Output change | Main asset type(s) | Funding | GRIP stage | Completion year | |
|---------|--|--|---|----------------------------------|--|-----------------|---------|
| R | Rigton – Horsforth (10.02) | Renewal of lineside equipment | Renewal and improved capacity and performance | Signalling | Network Rail and possible Network Rail Discretionary Funding | 1 | 2010/11 |
| Q | Church Fenton (10.06) | Renewal of S&C with higher line speed over the junction | Improved capacity and performance | Track and signalling | In development for Network Rail Discretionary Funding in association with an S&C renewal | 2 | 2008/09 |
| S | Hull Docks Branch (10.14) | Increase track capacity between Hessle Road and the docks. | Improved capacity, performance and route capability | Track, signalling and structures | In development for funding by Yorkshire Forward | 4 | 2008/09 |
| T | Hull Paragon (10.07) | Bus / Rail interchange | Improved footfall capacity | Station | Third Party | 6 | 2008/09 |
| U | Goole Swing Bridge (10.08) | Strengthening | Renewal | Civils | Network Rail | 3 | 2009/10 |
| V | Falsgrave (10.12) | Track remodelling and resignalling | Renewal and line speed increase | Track & signalling | Network Rail | 2 | 2009/10 |
| W | Methley Jn (10.09) | Renewal of S&C | Renewal | Track | Network Rail | 1 | 2009/10 |
| AT | Hummanby (10.11) | Raikes Lane underbridge strengthening | Renewal and improved route capability | Structures | Network Rail | 4 | 2009/10 |
| X | Sudforth Lane, Whitley Bridge and Hensall 10.08) | Resignalling and transfer of control to Ferrybridge | Renewal | Signalling | Network Rail | 1 | 2011/12 |

Figure 16 Planned Infrastructure investment

| Project | Project description | Output change | Main asset type(s) | Funding | GRIP stage | Completion year |
|--|---|---|----------------------|------------------------------------|------------|-----------------|
| Y Selby Swing Bridge (10.07) | Strengthening | Renewal | Structures | Network Rail | 4 | 2012/13 |
| Z Wakefield Kirkgate and Horbury (10.09) | Renewal of signal interlocking | Renewal, signal box, track rationalisation, improved capacity and performance | Signalling | Network Rail | 1 | 2014/15 |
| C Healey Mills (10.09) | Track renewals and line speed increases | Improved performance and capacity | Track and signalling | Network Rail Discretionary Fund | 8 | 2007/08 |
| Insulated block joints upgrade work | Track improvements | Improved asset condition and performance improvements | Track | Network Rail Discretionary Fund | 8 | 2007/08 |

Figure 17 highlights infrastructure investment under consideration.

Figure 17 Infrastructure investment under consideration

| Project | Project description | Output change | Main asset type(s) | Funding | GRIP stage |
|----------------------------------|--|--|----------------------|--|------------|
| AA W10 Gauge Clearance (Various) | Gauge clearance of routes to various Yorkshire Terminals in connection with the port developments at Felixstowe and Bathside Bay | To accommodate the carriage of deep sea container traffic from the Felixstowe to Leeds Stourton, Wakefield Europort and Selby (Potter Group) terminals | Structures and track | In development for funding by HPUK Ltd | 4 |
| AB Haxby (10.12) | New station | Stimulate growth | Station | Third Party | 3 |

Figure 17 Infrastructure investment under consideration

| Project | Project description | Output change | Main asset type(s) | Funding | GRIP stage |
|--|--|---|--------------------------------|--|------------|
| N Bradford Mill Lane S&C (10.04) | Revised track layout | Improved line speed and increased opportunity for parallel moves | Track and signalling | In development for Network Rail Discretionary Funding in association with an S&C renewal | 3 |
| AC Yorkshire Horseshoe Electrification (10.06 and 10.07) | Electrification extension | Electrification of Neville Hill to Hambleton South Junction to assist the operation of additional services between Leeds and London | OLE, signalling and structures | Development funding by Network Rail and GNER | 2 |
| AD Platform extensions at Littleborough, Smithy Bridge and Mills Hill (10.10) | Platform extension to accommodate 4 x 23m vehicles | To accommodate commuter growth on Calder Valley services | Station | In development for Network Rail Discretionary Funding | 1 |
| AE Platform extension Crossgates and Garforth (10.06) | Platform extension to accommodate 6 car class 185 trains | To accommodate commuter growth | Station | In development for Network Rail Discretionary Funding | 1 |
| AF Platform extension Huddersfield, Cottingley and Deighton (10.05) | Platform extension to accommodate 4 car Sprinter trains | To accommodate commuter growth | Station | In development for Network Rail Discretionary Funding | 1 |
| L Gilberdyke to Hessle (10.07) | Resignalling | Renewal | Signalling | Network Rail | 1 |
| K Neville Hill Depot Performance Improvements (10.06) | Improved access / egress to Neville Hill depot | Improved performance and regulation of trains in the Leeds to Neville Hill area | Track, signalling and OLE | In development for Network Rail Discretionary Funding | 1 |

| Project | Project description | Output change | Main asset type(s) | Funding | GRIP stage |
|--|--|---|-------------------------------|---|------------|
| AG Leeds Station (10.01) | Redevelopment of the station and new southern entrance | Improved station facilities, additional footfall capacity and improved access | Station | In development for Network Rail Discretionary Funding and Third Party Funding | 1 |
| AH Micklefield (10.06) | New parkway station | New station facilities and stimulate growth | Station, track and signalling | Outperformance Funding for development work | 1 |
| AI Leeds – Manchester via Diggle (10.05) | Line speed increases | Improved performance and capacity | Track, civils and signalling | Outperformance Funding for development work | 1 |
| AY Selby Station (10.07) | Platform 3 extension | Improved operational flexibility | Station | In development for Network Rail Discretionary Funding | 1 |
| AJ Hull-Selby-Temple Hirst (10.07) | Line Speed Increase | Improved journey times | Track and signalling | In development for Network Rail Discretionary Funding | 1 |
| AI Dewsbury – Huddersfield (10.05) | Line Speed Increase | Improved journey times | Track | In development for Network Rail Discretionary Funding | 1 |
| AI Huddersfield – Standedge Tunnel (10.05) | Line Speed Increase | Improved journey times | Track | In development for Network Rail Discretionary Funding | 1 |

Figure 17 Infrastructure investment under consideration

Figure 17 Infrastructure investment under consideration

| Project | Project description | Output change | Main asset type(s) | Funding | GRIP stage |
|---|--|--|----------------------------------|---|------------|
| AK Shipley (10.03) | Platform 5 Line Speed Increase | Improved performance and capacity | Track and signalling | In development for Network Rail Discretionary Funding | 1 |
| AL Northern Gauge Improvements (Various) | Gauge clearance of various routes in connection with port developments on the East Coast. | To accommodate the carriage of deep sea container traffic | Structures and track | In development for potential TIF funding | 1 |
| AM Humber Ports Capacity (10.07) | Capacity improvements, may include loop extension or new loops between Gilberdyke and Selby. | To allow ongoing growth of rail freight traffic through Port of Hull to the Aire Valley Power Stations | Track and signalling | In development for potential TIF funding | 1 |
| AN York – Scarborough (10.12) | Line speed increase | Improved journey times | Track, structures and signalling | In development for Network Rail Discretionary Funding | 1 |
| AO Sheffield – Leeds via Barnsley (10.09) | Line speed increase | Journey time improvement | Track | In development for Network Rail Discretionary Funding | 1 |
| AW Methley Jn (10.09) | Junction remodelling | Improved performance and capacity | Track | Potential for Network Rail Discretionary Funding on the back of a S&C renewal | 1 |
| AP Hunslet (10.09) | Reinstate freight connection to sidings phase 2 | New freight operation | Track, signalling & plant | Third Party | 1 |

Figure 17 Infrastructure investment under consideration

| Project | Project description | Output change | Main asset type(s) | Funding | GRIP stage |
|------------------------------|--|--|--------------------|--|------------|
| AC Hessle-Gilberdyke (10.07) | Enhancement in connection with resignalling | 4 aspect colour light signalling to improve capacity | Signalling | In development for Network Rail Discretionary Funding in connection with Signalling Renewals | 1 |
| AR Dewsbury (10.05) | Provision of flashing yellow aspect signalling | Improved performance and capacity | Signalling | In development for Network Rail Discretionary Funding | 1 |
| Level crossing destaffing | Level crossing modernisation | Operational efficiencies and safety improvements | Signalling | In development for Network Rail Discretionary Funding | 3 |

Figure 18 highlights route enhancement aspirations

Figure 18 Route Enhancement aspirations

| Project | Project description | Output change | Main asset type(s) | Funding | Status |
|-----------------------|----------------------|-----------------|--------------------|------------------|--|
| Calder Valley (10.10) | Service improvements | To be evaluated | To be evaluated | To be identified | Stakeholders have commissioned a study |

Appendix

Figure 19 Strategic route sections

| Predominant aspect recorded (secondary aspects recorded in brackets) ELR is Engineers Line Reference and RA is Route Availability | | | | | | | | | | | | |
|---|---|--------------|----------------|---------|----------------|---------------|-----------|------------|-----------------|-----------------|--------------------|--------------|
| SRS | SRS Name | ELR | Classification | Funding | Community Rail | Freight Gauge | RA | Speed | Electrification | Signalling Type | Signalling Headway | No of Tracks |
| 10.01 | Leeds – Holbeck West Jn | DOL2 | Primary | DfT | No | W8 | RA8/9 | 25 (40)) | 25kV | TCB | 3 mins | 2 |
| 10.02 | Harrogate Line | HAY1/2 | Rural | DfT | No | W6 | RA8 | 60 (65) | None | Various | Various | 2(1) |
| 10.03 | Leeds North West | TJC3 | Secondary | DfT | No | W7 | RA8 | 90 (25) | 25kV | TCB | 5 (6) | 2(1) |
| 10.04 | Bradford Interchange Lines | LBE | Rural | DfT | No | W6 | RA8 (RA6) | 60 | None | TCB | 4 (11) | 2 |
| 10.05 | NTP: Holbeck East Jn – Slatybridge | MVL3/4/MDL1 | Secondary | DfT | No | W8 | RA9 (RA8) | 70 (80/60) | None | TCB? | 4 | 2(3) |
| 10.06 | Leeds – Colton Jn | HUL4/CFM/NOC | Secondary | DfT | No | W8 | RA8 (RA9) | 90 | None (25kV) | TCB | 4 (3) | 2 |
| 10.07 | Hull – Mickelfield Jn | HUL1/2/3 | Secondary | DfT | No | W8 (W6) | RA8 | 90 (75) | None | AB (TCB) | 5 | 2 |
| 10.08 | Gilberdyke Jn – Thorne Jn and Knottingley West Jn plus Church Fenton Jn – Moorthorpe | TJG | Secondary | DfT | Yes | W8 | RA8 | 70 | None | AB (TCB) | 4 | 2 |
| 10.09 | Knottingley West Jn – Thornhill Jn (via Crofton Jn and via Castleford Jn) – Leeds West Jn | WAG/GCP M | Secondary | DfT | No | W8 (W9) | RA8 | 60 (50/25) | None | TCB (AB) | 5 | 2 |
| 10.10 | Rochdale East Jn – Heaton | MVN2 | Secondary | DfT | No | W7/W8 | RA9 | 60 (70) | None | AB (TCB) | 6 | 2 |

Figure 19 Strategic route sections

Predominant aspect recorded (secondary aspects recorded in brackets) ELR is Engineers Line Reference and RA is Route Availability

| SRS | SRS Name | ELR | Classification | Funding | Community Rail | Freight Gauge | RA | Speed | Electrification | Signalling Type | Signalling Headway | No of Tracks |
|-------|--------------------------|---------|----------------|---------|----------------|---------------|--------------|---------|-----------------|-----------------|--------------------|--------------|
| | Lodge Jn/Bradley Jn | | | | | | (RA8) | | | | | |
| 10.11 | Hull – Seamer | HBS | Rural | DfT | Yes | W6 | RA6 (RA7) | 70 (40) | None | Various | Various | 2(1) |
| 10.12 | York – Scarborough | YMS | Rural | DfT | No | W6 | RA8 | 90 (75) | None | AB (TCB) | 8 | 2 |
| 10.13 | Freight Through Branches | Various | Freight | DfT | No | W8 (W6) | RA8 (RA9) | Various | None | TCB (AB) | Various | 2 |
| 10.14 | Freight Branches | Various | Freight | DfT | No | W6/W8 | Various | Various | None | Various | Various | 1(2) |

Capacity and operational constraint

- | | |
|---|---|
| A | Harrogate – York: single-line and level crossings |
| B | Bradford Interchange: S&C and curvature |
| C | Halifax: S&C and curvature |
| D | Halifax – Bradley Junction: S&C and curvature |
| E | Church Fenton – Moorthorpe: gradients, S&C and curvature |
| F | Drax Branch Junction – Goole: single-line and level crossings |
| G | Wakefield – Pontefract: level crossings and track geometry |
| H | Leeds: S&C and curvature |
| I | Huddersfield: S&C and curvature |
| J | Marsden: curvature on approach to Standedge tunnel |
| K | Selby: curvature at Swing Bridge |
| L | York – Malton: curvature and level crossings |
| M | Hull: curvature and S&C |
| N | Goole Swing Bridge: load bearing capacity |

Note

This Route Plan forms part of the business plan suite of documents which is produced annually and in accordance with our network licence condition 7. Our plans and the way in which we intend to achieve those plans are summarised in the Business Plan itself. This document provides further detail on the specific plans for this Strategic Route including the expenditure over the next two years to the end of Control Period 3.

This year our business plan focuses on the remainder of Control Period 3 (to March 2009). We shall provide a submission to the Office of Rail Regulation in October 2007, which will set out our view of the expenditure and activities that will be required in Control Period 4 (2009/10 to 2013/14).

The Route Plan shows in more detail how the strategies set out in the Business Plan will be delivered at a route level across the network, and how we are working with our customers and other stakeholders to improve the

performance and utilisation of the network. It presents a portfolio of activities to develop the network.

The expenditure section contains tables showing the planned level of expenditure and volumes on renewals on the route over the next two years, split by asset category. Expenditure figures are shown in 2006/07 prices, and are rounded to the nearest £1 million. An entry of £0 indicates spend of less than £0.5 million. It should be noted that in order to manage the deliverability of our Civils, Signalling & Electrification plans we have included an element of overplanning in our work banks. As a consequence the sum of our route plans exceeds our plan for the network as a whole. It is likely that a small proportion of the activities in these areas will slip to subsequent years.

Please note that figures in tables may not sum to the totals shown, because of rounding.

The other documents in the business plan suite can be found on the Network Rail website www.networkrail.co.uk



This Route Plan is part of a set.
To view or download the others
visit www.networkrail.co.uk