

HS3 Mk2 Route Loadings

Introduction

Deriving the route loadings for a given service plan can be a difficult and tedious matter, and very prone to error. Furthermore, understanding what a given loading consists of can be problematic at a later time, requiring effectively as much effort to interpret as it originally took to produce (the only way reliably to work it out is effectively to regenerate it). The problem is especially acute with HS3 Mk2, since this is the most complicated of the various routes, involving the most elaborate mix of services and extensive interactions with other routes.

Following the referendum on EU membership and the decision to disengage from the EU, several changes have been made to the plans for HS rail, most importantly, abandoning GC-gauge, and building all new infrastructure to standard UK loading gauge. This has very little impact on the routes proposed, but significant impact on the service plans. In certain cases it is now proposed to include sections of classic route in the HS route, rather than building exclusively new throughout. (Note that this is different from the previous proposals to run classic compatible services on classic lines, **beyond** the HS route; this actually incorporates classic sections, upgraded as appropriate, in the HS route itself.)

Because of the significant changes introduced at Mk1A, the latest versions of all the Mk2 plans (v1.1 in the case of HS3) have been preserved, available in an archive section on the website. (For the avoidance of confusion, note that the Mk2 plans for HS3 were actually written before Mk1A, but of course describe much later developments. They thus appear in v1.1!)

For my own convenience as much as anything else, the present article elucidates the route loadings corresponding to service plans 5 and 6. Service Plan 5 is the full service plan for HS3 Mk2 at its full extent, also including Mk1A, but before any of the quadrupling made possible thereby has been implemented. (The loadings corresponding to earlier service plans are significantly simpler, and easily understood by a process of working back from SP5.) Service Plan 6 details the situation after quadrupling (between London and Garforth East Junction) has been completed, and many extra services introduced.

The present article, though really of no interest to anyone but myself, is nonetheless published on the website, just in case anyone feels moved to challenge my figures, in which case they will be able to see how I derived them, without having to involve me personally.

The service plans are given in full, since otherwise the information would not be self-contained, and would require consulting the original Route and Service Plans article also.

Service Plan 5 Summary

It's worth summarising the full set of services at service plan 5, as this represents the final, complete state of the Mk1A plans, and the services have so far been introduced piecemeal, at the various stages. Note also that the order of the HS Metro and HS-C services has been rearranged slightly.

This is, of course, the initial, 2-track railway. The effect of quadrupling will be examined later.

HS3 Long Distance UHS:

- 2tphH Eastbourne – Lewes – Gatwick Airport – East Croydon – Victoria (LL) – Pancras Cross – York – Darlington – Durham (Relly Mill) – Consett – Hexham – Hawick – Edinburgh Waverley HS – Haymarket – Edinburgh Airport – Glasgow Bellgrove – Glasgow St. Enoch
- 2tphH Newhaven Marine – Newhaven Town – Lewes – Gatwick Airport – East Croydon – Victoria (LL) – Pancras Cross – South Yorkshire HL – York HS (splits / joins) – :
– Darlington – Durham (Relly Mill) – Consett – Newcastle
– Northallerton – Yarm – Eaglescliffe – Thornaby – Middlesbrough
- 2tphH Tunbridge Wells – Tonbridge – East Croydon – Victoria (LL) – Pancras Cross – South Yorkshire HL – Wakefield Westgate – Leeds HS – York HS
- 2tphH Tunbridge Wells – Tonbridge – East Croydon – Victoria (LL) – Pancras Cross – South Yorkshire HL – Leeds City (splits / Joins) – :
– Shipley – Bradford City – Halifax
– Shipley – Keighley – Skipton
- 2tphH Tunbridge Wells – Tonbridge – East Croydon – Victoria (LL) – Pancras Cross – Chesterfield – Sheffield Midland (splits / joins) – :
– Rotherham – South Yorkshire LL
– Barnsley
- 2tphH Tunbridge Wells – Tonbridge – East Croydon – Victoria (LL) – Pancras Cross – Sheffield HS – Manchester HS – (Manchester) Victoria LL – Liverpool Lime St.
- 2tphH Newcastle – Hexham – stations to Carlisle
- 2tphH Newcastle – Hexham – Hawick – Lauder – Edinburgh Waverley HS – Haymarket – Edinburgh Airport – Glasgow Bellgrove – Glasgow St. Enoch
- 2tphH Hawick – Lauder – Edinburgh → Inverness

(Note that the Newcastle – Hexham and Hawick – Inverness services are included in the UHS section because they interface with the Glasgow service.)

HS3 Metro:

- 2tphH Brighton – Gatwick Airport – East Croydon – Victoria (LL) – Pancras Cross – Luton & Dunstable Parkway – Milton Keynes Parkway – Northampton – Leicester – Nottingham – Sheffield HS – Huddersfield – Leeds HS – York HS
- 2tphH Brighton – Gatwick Airport – East Croydon – Victoria (LL) – Pancras Cross – Luton & Dunstable Parkway – Milton Keynes Parkway – Northampton – Leicester – Nottingham – Sheffield HS – Manchester HS – Manchester Victoria (LL) – Bolton – Preston

- 2tphH St. Pancras – Luton & Dunstable Parkway – Milton Keynes Parkway – Northampton – Leicester – Loughborough – Derby – Chesterfield – Sheffield Midland – Rotherham – Wakefield Westgate – Leeds City – Micklefield – York
- 2tphH St. Pancras – Luton & Dunstable Parkway – Milton Keynes Parkway – Northampton – Leicester – East Midlands Parkway – Derby – Matlock – Bakewell – Miller’s Dale (from/to Buxton) – Chinley – Stockport – Manchester Piccadilly (alternatively: – Derby – Chesterfield – Sheffield (reverse) – Chinley – if the Peak route has not yet been reopened.)
- 2tphH St. Pancras – Luton & Dunstable Parkway – Milton Keynes Parkway – Northampton – Rugby – Coventry – Birmingham International – Birmingham New Street – Wolverhampton – :
1) – Stafford – Crewe – Runcorn – Liverpool South Parkway – Liverpool Lime Street
2) – Telford – Wellington – Shrewsbury – Gobowen – Wrexham – Chester

MML and other Regional Metro:

- 2tphR St. Pancras – St. Albans – Luton Airport Parkway – Luton – Bedford – Wellingborough – Kettering – Market Harborough – Leicester – Loughborough – Attenborough – Beeston - Nottingham
- 2tphR St. Pancras – St. Albans – Luton Airport Parkway – Luton – Bedford – Wellingborough – Kettering – Market Harborough – Leicester – East Midlands Parkway – Attenborough – Beeston - Nottingham
- 2tphR St. Pancras – St. Albans – Luton Airport Parkway – Luton – Bedford – Wellingborough – Kettering – Corby – Oakham – Melton Mowbray – Nottingham – Langley Mill – Alfreton & Mansfield Parkway – Chesterfield – Sheffield Midland – Rotherham – Pontefract – York
(note that this uses HS3 on the approach to Nottingham)
- 2tphR St. Pancras – St. Albans – Luton Airport Parkway – Luton – Bedford – Olney – Northampton – Rugby – Coventry – Birmingham Int’l – Birmingham New St. – University – Bromsgrove – Droitwich Spa – Worcester Shrub Hill.
- 2tphR (Thameslink) Brighton → Bedford – Olney – Northampton
- 2tphR Birmingham New St. – Coleshill Parkway – Nuneaton – Hinckley – Leicester – Melton Mowbray – Oakham – Stamford – Peterborough – March – Ely – Bury St. Edmunds – Ipswich – Harwich International – Harwich Town
- 2tphR Bournemouth West – Bournemouth Central – Brockenhurst – Southampton – Southampton Airport Parkway – Winchester – Basingstoke – Reading – Oxford – Banbury – Leamington Spa – Kenilworth – Coventry – Birmingham Int’l – Birmingham New St. (reverse) – Tamworth – Burton-on-Trent – Derby – Chesterfield – Sheffield – Rotherham – Wakefield Westgate – Leeds City – Micklefield – York
- 2tphR Plymouth – Ivybridge – Totnes – Newton Abbot – Teignmouth – Dawlish – Exeter St. David’s – Cullompton – Tiverton Junction – Taunton – Bridgwater – Highbridge – Weston Super Mare – Bristol Temple Meads – Bristol Parkway – Gloucester (reverse) – Cheltenham Spa – Ashchurch – Worcester Shrub Hill – Droitwich Spa – Bromsgrove – University – Birmingham New St. – Tamworth – Burton on Trent – Derby – Chesterfield – Sheffield – Rotherham – Wakefield Westgate – Leeds City – Micklefield – York
- 2tphR Norwich – Wymondham – Thetford – Ely (reverse) –
2tphR Stansted Airport – Cambridge – Ely (joins / splits) –
– March – Peterborough – Stamford – Oakham – Melton Mowbray – Nottingham – Langley Mill
– Alfreton and Mansfield Parkway – Chesterfield – Sheffield (reverse) – Chinley – Stockport –

Manchester Piccadilly – Manchester Oxford Road – Salford Crescent – Bolton – Horwich Parkway – Chorley – Leyland – Preston – Lancaster – Morecambe

- 2tphR York – Thirsk – Northallerton – Darlington – Durham – Chester le Street – Newcastle – Morpeth – Alnmouth – Berwick-upon-Tweed – Dunbar – Drem – Edinburgh Waverley
- 2tphRS (Tees Valley Metro) Bishop Auckland – Shildon – Newton Aycliffe – Heighington – North Road – Darlington – Dinsdale – Tees-Side Airport – Allen’s West – Eaglescliffe – Thornaby – Middlesbrough – British Steel (Redcar) – Redcar Central – Redcar East – Marske – Saltburn

HS7 North of Birmingham:

- 2tphH Plymouth – Exeter St. David’s – Taunton – Bristol Temple Meads HS – Bristol Parkway HS – Cheltenham Spa – Worcester Shrub Hill – Birmingham Interchange – Derby – Sheffield HS – Huddersfield – Leeds HS – York HS (splits / joins) – :
– Darlington – Durham (Relly Mill) – Consett – Newcastle
– Northallerton – Yarm – Eaglescliffe – Thornaby – Middlesbrough
- 2tphH Swansea – Port Talbot – Cardiff (Rhoose) Airport – Cardiff HS – Bristol Parkway HS – Cheltenham Spa – Worcester Shrub Hill – Birmingham Interchange – Derby – Nottingham – Melton Mowbray – Peterborough – Norwich
- 2tphH Birmingham HS – Derby – Sheffield HS – Huddersfield – Leeds HS – York
- 2tphH Birmingham HS – Derby – Chesterfield – Sheffield Midland – South Yorkshire HL – Leeds City (splits / joins) – :
– Shipley – Bradford City – Halifax
– Shipley – Keighley – Skipton
- 2tphH Birmingham HS – Derby – Nottingham – Newark Castle – Lincoln Central – Market Rasen – Grimsby Town – Cleethorpes
- 2tphH Birmingham HS – Derby – Nottingham – Newark Castle – Lincoln Central – Sleaford – Boston – Wainfleet – Skegness

HS8:

- 2tphH Norwich – Peterborough – Melton Mowbray – Nottingham – Sheffield HS – Manchester HS – Manchester Victoria LL – Bolton – Preston

HS9:

- 2tphH Liverpool Lime Street – Manchester Victoria (LL) – Manchester HS – Huddersfield – Leeds HS – York HS (splits / joins) – :
– Darlington – Durham (Relly Mill) – Consett – Newcastle
– Northallerton – Yarm – Eaglescliffe – Thornaby – Middlesbrough
- 2tphH Liverpool Lime Street – Manchester Victoria (LL) – Manchester HS – Huddersfield – Leeds HS – Micklefield – York – Thirsk – Northallerton – Yarm – Eaglescliffe – Stockton – Hartlepool – Seaham – Sunderland – Newcastle
- 2tphH Preston – Bolton – Manchester Victoria (LL) – Manchester HS – Huddersfield – Leeds HS – Micklefield – Selby – Hull
- 2tphH Preston – Bolton – Manchester Victoria (LL) – Manchester HS – Huddersfield – Leeds HS – Micklefield – York – Malton – Seamer – Scarborough

HS6:

- 2tphH St. Pancras (East) – Stratford HS – Stansted Airport – Cambridge – Ely – Peterborough – Doncaster – York HS (splits / joins) –:
 - Darlington – Durham – Newcastle – Morpeth – Alnmouth – Berwick upon Tweed – Dunbar - Drem – Edinburgh Waverley
 - Thirsk – Northallerton – Yarm – Eaglescliffe – Stockton – Hartlepool – Seaham – Sunderland - Newcastle
- 2tphH St. Pancras (East) – Stratford HS – Stansted Airport – Cambridge – Ely – Peterborough – Grantham – Newark Northgate – Retford HL – Doncaster – Wakefield Westgate – Leeds City

Representative Hourly Non-Cross-Platform Interchange Pattern at Bedford:

- 00R St. Pancras – York via Melton Mowbray
R (Thameslink) Brighton – Bedford
- 07R St. Pancras – Nottingham (calling at East Midlands Parkway)
R (Thameslink) Horsham – Northampton
- 15R St. Pancras – Birmingham New St. – Worcester
R (Thameslink) Brighton – Corby
- 23R St. Pancras – Nottingham (calling at Loughborough)
R (Thameslink) Horsham – Northampton

– repeating at 30, 37, 45 and 53 minutes past.

Connections are made between HS3 and East-West-Rail services at Milton Keynes Parkway (incorporating the former Ridgmont station on EWR). Both HS3 and EWR have two island platforms and EWR services make cross-platform connections (usually by an all-stations service interchanging with a RM semi-fast, which overtakes it there). The Hourly Interchange Pattern is:

- 00H Brighton – York (not cross-platform)
R Plymouth – Norwich
RS Buckingham – Bedford
- 05H St Pancras – Wolverhampton – Liverpool / Chester
(connects into the following EWR services)
- 07H St. Pancras – Derby – Sheffield – York (not cross-platform)
RS Oxford – Cambridge
RS Milton Keynes – Bedford
- 15H Brighton – Preston (not cross-platform)
R Plymouth – Cleethorpes
RS Buckingham – Bedford
- 23H St. Pancras – Derby – Matlock (or Sheffield) – Manchester (not cross-platform)
R Weymouth – York
RS Milton Keynes – Bedford

– repeating at 30, 35, 37, 45 and 53 minutes past.

Representative Hourly Interchange Pattern at Northampton (the HS3/MML connections are not cross-platform, but the intra-WCML ones are; see the WCML Service Plans article for full details of these):

- 00H Brighton – York (not cross-platform)
 - R Euston – Crewe via Stoke
 - R Euston – Rugby
- 05H St. Pancras – Wolverhampton – Liverpool / Chester (not cross-platform)
 - R (Thameslink) Brighton – Northampton
- 07H St. Pancras – Derby – Sheffield – York (not cross-platform)
 - R Euston – Birmingham New St.
- 15H Brighton – Preston (not cross-platform)
 - R Euston – Crewe via Stafford
 - R Euston – Rugby
- 15R St. Pancras – Birmingham New St. – Worcester
 - R (Thameslink) Brighton – Northampton
- 23H St. Pancras – Derby – Matlock (or Sheffield) – Manchester (not cross-platform)
 - R Euston – Barrow in Furness

– repeating at 30, 35, 37, 45, 50 and 53 minutes past.

Representative Hourly Cross-Platform Interchange Pattern at Leicester:

- 00H Brighton – York
(no connection)
- 05R St. Pancras – East Midlands Parkway – Nottingham
 - H St. Pancras – Loughborough – Derby – Sheffield – York
- 15H Brighton – Preston
 - R Harwich Town – Worcester Shrub Hill
- 23H St. Pancras – East Midlands Parkway – Derby – Matlock/Sheffield – Manchester
 - R St. Pancras – Loughborough – Nottingham

– repeating at 30, 45 and 53 minutes past. Note that these services depart in the order stated, thus the RM St. Pancras – Nottingham service, calling at East Midlands Parkway (but not Loughborough) departs before the HS-C St. Pancras – York service, calling at Loughborough (but not East Midlands Parkway). This ensures that Loughborough and East Midlands Parkway stations each have 4tph, alternatively to Derby and points north, or to Nottingham, but no HS-C or RM train serves both. (There is a stopping service between Leicester and Derby, which does.)

Representative Hourly (non-cross-platform) Interchange Pattern at Derby:

- 00H HS7 Plymouth – Newcastle / Middlesbrough
- R Bournemouth West – York
- 05H HS7 Birmingham – York
- H St. Pancras – Matlock (or Sheffield) – Manchester
- 10H HS7 Birmingham – Cleethorpes
- (no connection)
- 15H HS4/HS7 Swansea – Norwich
- R Plymouth – York
- 20H HS7 Birmingham – Halifax / Skipton
- H St. Pancras – Sheffield – York
- 25H HS7 Birmingham – Skegness
- (no connection)

– repeating at 30, 35, 40, 45, 50 and 55 minutes past.

Representative Hourly Cross-Platform Interchange Pattern at Nottingham:

- 00H HS8 Norwich – Preston
- (no connection)
- 07H Brighton – York
- H HS7 Birmingham – Skegness
- R St. Pancras – Melton Mowbray – York
- R Norwich / Stansted Airport – Morecambe
- 15H HS8/HS7 Norwich – Swansea
- (no connection*)
- 23H HS3/HS8 Brighton – Preston
- H HS7 Birmingham – Cleethorpes

– repeating at 30, 37 and 53 minutes past. (* The Norwich – Swansea service connects into the following service to Preston.)

Representative Hourly Cross-Platform Interchange Pattern at Sheffield. (Refer to the Transpennine Routes and Service Plans article for full details of the Regional Metro services). The HS services have cross-platform interchange, and the RM services have longer stops, to allow for the platform change. The pattern is:

- 00H Brighton – York (HS Metro)
 - H HS8 Norwich – Preston
 - R Skegness – Liverpool
- 07H HS7 Plymouth – Newcastle / Middlesborough
(no cross-platform connection)
 - R Cleethorpes – Blackpool
- 15H HS3/HS8 Brighton – Preston
 - H HS7 Birmingham HS – York
 - R Norwich / Stansted Airport – Morecambe
- 23H HS3/HS8 Tunbridge Wells - Liverpool
(no cross-platform connection)
 - R Hull – Southport

– repeating at 30, 37, 45 and 53 minutes past.

Representative Hourly Cross-Platform Interchange and Terminating Pattern at York

- 00H Eastbourne – Glasgow
 - H Brighton – York (HS Metro)
- 07H Tunbridge Wells – York (UHS, Leeds fast)
 - H HS7 Plymouth – Newcastle / Middlesborough
 - H St.Pancras (West) – York (via Derby – not cross platform)
- 15H Newhaven – Newcastle / Middlesborough
 - H HS7 Birmingham HS – York
- 23H Liverpool – Newcastle / Middlesborough
 - H St. Pancras (East) – Edinburgh
 - R St. Pancras (West) – York (via Melton Mowbray – not cross-platform)

– repeating at 30, 40, 45 and 55 minutes past. The services terminating at 07 and 23 minutes past are obviously intended for (non-cross-platform) connection into those 7 / 8 minutes later.

Representative Hourly Cross-Platform Interchange Pattern at Darlington:

- 00H Eastbourne – Glasgow
 - RS Bishop Auckland – Middlesborough – Saltburn
- 07H Plymouth – Newcastle (/ Middlesborough)
 - RS Bishop Auckland – Middlesborough – Saltburn

15H Newhaven – Newcastle (/ Middlesborough)
 RS Bishop Auckland – Middlesborough – Saltburn

23H Liverpool – Newcastle (/ Middlesborough)
 H St. Pancras (East) – Edinburgh (not cross-platform – uses ECML platforms)
 RS Bishop Auckland – Middlesborough – Saltburn

– repeating at 30, 37, 45 and 53 minutes past.

Representative Hourly Cross-Platform Interchange Pattern at Newcastle:

00H Plymouth – Newcastle (/ Middlesborough)
 R York – Edinburgh

07H Newhaven – Newcastle (/ Middlesborough)
 (no connection)

15G Liverpool – Newcastle (/ Middlesborough)
 H St. Pancras (East) – Edinburgh

– repeating at 30, 37 and 45 minutes past.

Representative Hourly Cross-Platform Interchange Pattern at Hexham:

00H Eastbourne – Glasgow
 H Newcastle – Carlisle
 R Newcastle – Hexham (all stations)

15H Newcastle – Glasgow (calls Lauder)
 (no connection)

– repeating at 30 and 45 minutes past.

Representative Hourly Cross-Platform Interchange Pattern at Hawick:

00H Eastbourne – Glasgow
 H Hawick – Inverness (calls Lauder)
 R Hawick – Perth via Ladybank

15H Newcastle – Glasgow (calls Lauder)
 R Hawick – Dundee via Ladybank

– repeating at 30 and 45 minutes past.

Service Plan 5 is the full service plan for HS3 Mk2 at its full extent (plus the Mk1A changes), but before any of the quadrupling made possible thereby has been implemented. The loadings which it imposes are:

• Pancras Cross	– Canley St. Junction	16tph	
• Canley St. Junction	– West Hampstead Junction	16tph	
• St. Pancras	– West Hampstead Junction	14tph	
• West Hampstead Junction	– Scratchwood Junction	22tph	
• Canley St. Junction	– Scratchwood Junction	0tph	
• Scratchwood Junction	– Collingtree Junctions	22tph	
• Collingtree Junctions	– Northampton Castle station	10tph	
• Northampton Castle station	– Langborough Junction	8tph	
• Collingtree Junctions	– Langborough Junction	12tph	
• Langborough Junction	– Watkin Road Junction	20tph	
• Watkin Rd. Junction	– Humberstone Rd. Junction (main line)	12tph	
• Watkin Rd. Junction	– Regent St. Junction	8tph	
• Regent St Junction	– Swain St. Junction	8tph	*
• Swain St. Junction	– Humberstone Rd. Junction	4tph	
• Humberstone Rd. Junction	– Stanford Junction	16tph	
• Stanford Junction	– Nuthall South Junction (main line)	12tph	
• Stanford Junction	– Edwalton Junction	4tph	
• Edwalton Junction	– Manvers St. Junction	10tph	
• Manvers St. Junction	– Nottingham HS station	12tph	
• Nottingham HS station	– Strelley Junction	12tph	
• Awsworth Junction	– Strelley Junction	6tph	
• Strelley Junction	– Nuthall South Junction	6tph	
• Nuthall South Junction	– Nuthall North Junction	18tph	
• Awsworth Junction	– Nuthall North Junction	6tph	
• Nuthall North Junction	– Huthwaite Junction	24tph	
• Huthwaite Junction	– Stonebroom Junction	4tph	
• Stonebroom Junction	– Old Denaby Junction	4tph	*
• Old Denaby Junction	– South Yorkshire LL station	2tph	*
• Old Denaby Junction	– Denaby Main Junction	2tph	
• Huthwaite Junction	– Wales Junction	20tph	
• Wales Junction	– Waleswood Junction	12tph	
• Waleswood Junction	– Ladybower Junction	12tph	
• Ladybower Junction	– Guide Bridge HS Junction	6tph	
• Ladybower Junction	– Paddock Junction	6tph	
• Paddock Junction	– Gelderd Road North Junction	14tph	
• Wales Junction	– Denaby Main Junction	8tph	
• Denaby Main Junction	– Ryhill Junction	12tph	
• Ryhill Junction	– Crofton Junction	2tph	
• Crofton Junction	– Gelderd Road South Junction	4tph	*
• Gelderd Road South Junction	– Gelderd Road North Junction	2tph	
• Ryhill Junction	– Swillington Common Junction	8tph	

• Swillington Common Jn.	– Manston Junction	4tph	
• Swillington Common Jn.	– Garforth East Junction	4tph	
• Gelderd Road North Junction	– Garforth West Junction	16tph	
• Garforth West Junction	– Micklefield HS Junction	6tph	
• Garforth West Junction	– Garforth East Junction	10tph	
• Garforth East Junction	– Ulleskelf Junction	14tph	
• Ulleskelf Junction	– Holgate Junction	20tph	*
• Holgate Junction	– York HS station	14tph	
• York HS station	– Poppleton Junction	14tph	
• Poppleton Junction	– Romanby Junction	18tph	*
• Romanby Junction	– Derwent Hill Junction	8tph	
• Derwent Hill Junction	– Paradise Junction	6tph	
• Derwent Hill Junction	– Stocksfield	2tph	
• Newcastle	– Paradise Junction	10tph	
• Paradise Junction	– Bladon East Junction	4tph	
• Bladon East Junction	– Stocksfield Junction	4tph	*
• Stocksfield Junction	– Tynegreen Junction	6tph	*
• Tynegreen Junction	– Hawick	4tph	
• Hawick	– Ravenswood Junction	10tph	
• Ravenswood Junction	– Newcraighall	6tph	
• Newcraighall	– Edinburgh	14tph	

Those sections marked * give only the HS loadings. They are sections of classic track, incorporated in the HS line, and carry classic traffic also. (The Newcraighall – Edinburgh section includes HS13 loadings.)

Elucidation of the loadings:

1. Pancras Cross – Canley St. Junction
 - 2tphH Eastbourne – Glasgow
 - 2tphH Newhaven – York – Newcastle / Middlesborough
 - 2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
 - 2tphH Tunbridge Wells – Leeds HS – York HS
 - 2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
 - 2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL / Barnsley
 - 2tphH Brighton – York
 - 2tphH Brighton – Preston
 - = 16tph
2. Canley St. Junction – West Hampstead Junction
 - 2tphH Eastbourne – Glasgow
 - 2tphH Newhaven – York – Newcastle / Middlesborough
 - 2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
 - 2tphH Tunbridge Wells – Leeds HS – York HS

2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
 2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL / Barnsley
 2tphH Brighton – York
 2tphH Brighton – Preston
 = 16tph

3. St. Pancras – West Hampstead Junction

2tphH St. Pancras – York (serves Loughborough)
 2tphH St. Pancras – Manchester (serves East Midlands Parkway)
 2tphH St. Pancras – Wolverhampton – Liverpool / Chester
 2tphR St. Pancras – Nottingham (serves East Midlands Parkway)
 2tphR St. Pancras – Nottingham (serves Loughborough)
 2tphR St. Pancras – York via Melton Mowbray
 2tphR St. Pancras – Worcester
 = 14tph

4. West Hampstead Junction – Scratchwood Junctions

2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle / Middlesborough
 2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
 2tphH Tunbridge Wells – Leeds HS – York HS
 2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
 2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL / Barnsley
 2tphH Brighton – York
 2tphH Brighton – Preston
 2tphH St. Pancras – York (serves Loughborough)
 2tphH St. Pancras – Manchester (serves East Midlands Parkway)
 2tphH St. Pancras – Wolverhampton – Liverpool / Chester
 = 22tph

5. Scratchwood Junction – Collingtree Junctions

2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle / Middlesborough
 2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
 2tphH Tunbridge Wells – Leeds HS – York HS
 2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
 2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL / Barnsley
 2tphH Brighton – York
 2tphH Brighton – Preston
 2tphH St. Pancras – York (serves Loughborough)
 2tphH St. Pancras – Manchester (serves East Midlands Parkway)
 2tphH St. Pancras – Wolverhampton – Liverpool / Chester
 = 22tph

6. Collingtree Junctions – Northampton Castle station
2tphH Brighton – York
2tphH Brighton – Preston
2tphH St. Pancras – York (serves Loughborough)
2tphH St. Pancras – Manchester (serves East Midlands Parkway)
2tphH St. Pancras – Wolverhampton – Liverpool / Chester
= 10tph
7. Northampton Castle station – Langborough Junction
2tphH Brighton – York
2tphH Brighton – Preston
2tphH St. Pancras – York (serves Loughborough)
2tphH St. Pancras – Manchester (serves East Midlands Parkway)
= 8tph
8. Collingtree Junctions – Langborough Junction (direct)
2tphH Eastbourne – Glasgow
2tphH Newhaven – York – Newcastle / Middlesborough
2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
2tphH Tunbridge Wells – Leeds HS – York HS
2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL / Barnsley
= 12tph
9. Langborough Junction – Watkin Rd. Junction
2tphH Eastbourne – Glasgow
2tphH Newhaven – York – Newcastle / Middlesborough
2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
2tphH Tunbridge Wells – Leeds HS – York HS
2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL / Barnsley
2tphH Brighton – York
2tphH Brighton – Preston
2tphH St. Pancras – York (serves Loughborough)
2tphH St. Pancras – Manchester (serves East Midlands Parkway)
= 20tph
10. Watkin Rd. Junction – Humberstone Rd. Junction (direct)
2tphH Eastbourne – Glasgow
2tphH Newhaven – York – Newcastle / Middlesborough
2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
2tphH Tunbridge Wells – Leeds HS – York HS
2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL / Barnsley
= 12tph

11. Watkin Rd. Junction – Regent St. Junction
 - 2tphH Brighton – York
 - 2tphH Brighton – Preston
 - 2tphH St. Pancras – York (serves Loughborough)
 - 2tphH St. Pancras – Manchester (serves East Midlands Parkway)
 - = 8tph
12. Regent St. Junction – Swain St. Junction
 - 2tphH Brighton – York
 - 2tphH Brighton – Preston
 - 2tphH St. Pancras – York (serves Loughborough)
 - 2tphH St. Pancras – Manchester (serves East Midlands Parkway)
 - = 8tph
13. Swain St. Junction – Humberstone Rd. Junction
 - 2tphH Brighton – York
 - 2tphH Brighton – Preston
 - = 4tph
14. Humberstone Rd, Junction – Stanford Junction
 - 2tphH Eastbourne – Glasgow
 - 2tphH Newhaven – York – Newcastle / Middlesborough
 - 2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
 - 2tphH Tunbridge Wells – Leeds HS – York HS
 - 2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
 - 2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL / Barnsley
 - 2tphH Brighton – York
 - 2tphH Brighton – Preston
 - = 16tph
15. Stanford Junction – Nuthall South Junction (direct)
 - 2tphH Eastbourne – Glasgow
 - 2tphH Newhaven – York – Newcastle / Middlesborough
 - 2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
 - 2tphH Tunbridge Wells – Leeds HS – York HS
 - 2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
 - 2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL / Barnsley
 - = 12tph
16. Stanford Junction – Edwalton Junction
 - 2tphH Brighton – York
 - 2tphH Brighton – Preston
 - = 4tph

17. Asfordby Junction (HS8) – Edwalton Junction
2tphH HS7 Norwich – Swansea
2tphH HS8 Norwich – Preston
2tphR St. Pancras – York via Melton Mowbray
= 6tph
18. Edwalton Junction – Manvers St. Junction
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS7 Norwich – Swansea
2tphH HS8 Norwich – Preston
2tphR St. Pancras – York via Melton Mowbray
= 10tph
19. Manvers St. Junction – Nottingham HS station
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS8 Norwich – Preston
2tphH HS7 Norwich – Swansea
2tphH HS7 Cleethorpes – Birmingham HS
2tphH HS7 Skegness – Birmingham HS
= 12tph
20. Manvers St. Junction – Nottingham classic station (NB only services coming **from** HS3)
2tphR St. Pancras – York via Melton Mowbray
= 2tph
21. Nottingham HS station – Strelley Junction
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS8 Norwich – Preston
2tphH HS7 Norwich – Swansea
2tphH HS7 Cleethorpes – Birmingham HS
2tphH HS7 Skegness – Birmingham HS
= 12tph
22. Strelley Junction – Awsworth Junction
2tphH HS7 Norwich – Swansea
2tphH HS7 Cleethorpes – Birmingham HS
2tphH HS7 Skegness – Birmingham HS
= 6tph
23. Strelley Junction – Nuthall South Junction
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS8 Norwich – Preston
= 6tph

24. Nuthall South Junction – Nuthall North Junction
 - 2tphH Eastbourne – Glasgow
 - 2tphH Newhaven – York – Newcastle / Middlesbrough
 - 2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
 - 2tphH Tunbridge Wells – Leeds HS – York HS
 - 2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
 - 2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL / Barnsley
 - 2tphH Brighton – York
 - 2tphH Brighton – Preston
 - 2tphH HS8 Norwich – Preston
 - = 18tph
25. Awsworth Junction – Nuthall North Junction
 - 2tphH HS7 Plymouth – York – Newcastle / Middlesbrough
 - 2tphH HS7 Birmingham HS – Leeds HS – York HS
 - 2tphH HS7 Birmingham HS – Leeds City – Halifax / Skipton
 - = 6tph
26. Nuthall North Junction – Huthwaite Junction
 - 2tphH Eastbourne – Glasgow
 - 2tphH Newhaven – York – Newcastle / Middlesbrough
 - 2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
 - 2tphH Tunbridge Wells – Leeds HS – York HS
 - 2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
 - 2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL / Barnsley
 - 2tphH Brighton – York
 - 2tphH Brighton – Preston
 - 2tphH HS8 Norwich – Preston
 - 2tphH HS7 Plymouth – York – Newcastle / Middlesbrough
 - 2tphH HS7 Birmingham HS – Leeds HS – York HS
 - 2tphH HS7 Birmingham HS – Leeds City – Halifax / Skipton
 - = 24tph
27. Huthwaite Junction – Stonebroom Junction
 - 2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL / Barnsley
 - 2tphH HS7 Birmingham HS – Leeds City – Halifax / Skipton
 - = 4tph
28. Stonebroom Junction – Old Denaby Junction
 - 2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL (/ Barnsley)
 - 2tphH HS7 Birmingham HS – Leeds City – Halifax / Skipton
 - = 4tph
29. Old Denaby Junction – South Yorkshire LL station
 - 2tphH Tunbridge Wells – Sheffield Midland – South Yorkshire LL
 - = 2tph

30. Old Denaby Junction – Denaby Main Junction
2tphH HS7 Birmingham HS – Leeds City – Halifax / Skipton
= 2tph
31. Huthwaite Junction – Wales Junction
2tphH Eastbourne – Glasgow
2tphH Newhaven – York – Newcastle / Middlesborough
2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
2tphH Tunbridge Wells – Leeds HS – York HS
2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS8 Norwich – Preston
2tphH HS7 Plymouth – York – Newcastle / Middlesborough
2tphH HS7 Birmingham HS – Leeds HS – York HS
= 20tph
32. Wales Junction – Waleswood Junction
2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS8 Norwich – Preston
2tphH HS7 Plymouth – York – Newcastle / Middlesborough
2tphH HS7 Birmingham HS – Leeds HS – York HS
= 12tph
33. Waleswood Junction – Woodburn HS Junction
2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS8 Norwich – Preston
2tphH HS7 Plymouth – York – Newcastle / Middlesborough
2tphH HS7 Birmingham HS – Leeds HS – York HS
= 12tph
34. Woodburn HS Junction – Sheffield HS – Ladybower Junction
2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS8 Norwich – Preston
2tphH HS7 Plymouth – York – Newcastle / Middlesborough
2tphH HS7 Birmingham HS – Leeds HS – York HS
= 12tph

35. Ladybower Junction – Guide Bridge HS Junction
2tphH Tunbridge Wells – Sheffield HS – Liverpool Lime St.
2tphH Brighton – Preston
2tphH HS8 Norwich – Preston
= 6tph
36. Ladybower Junction – Paddock Junction
2tphH Brighton – York
2tphH HS7 Plymouth – York – Newcastle / Middlesborough
2tphH HS7 Birmingham HS – Leeds HS – York HS
= 6tph
37. Paddock Junction – Huddersfield – Gelderd Rd. North Junction
2tphH Brighton – York
2tphH HS7 Plymouth – York – Newcastle / Middlesborough
2tphH HS7 Birmingham HS – Leeds HS – York HS
2tphH HS9 Liverpool – York – Newcastle / Middlesborough
2tphH HS9 Liverpool – Newcastle via Hartlepool
2tphH HS9 Preston – Hull
2tphH HS9 Preston – Scarborough
=14tph
38. Wales Junction – Denaby Main Junction
2tphH Eastbourne – Glasgow
2tphH Newhaven – York – Newcastle / Middlesborough
2tphH Tunbridge Wells – Leeds HS – York HS
2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
= 8tph
39. Denaby Main Junction – Ryhill Junction
2tphH Eastbourne – Glasgow
2tphH Newhaven – York – Newcastle / Middlesborough
2tphH Tunbridge Wells – Leeds HS – York HS
2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
2tphH HS7 Birmingham HS – Leeds City – Halifax / Skipton
= 10tph
40. Ryhill Junction – Crofton Junction
2tphH Tunbridge Wells – Leeds HS – York HS
= 2tph
41. Crofton Junction – Gelderd Road South Junction
2tphH Tunbridge Wells – Leeds HS – York HS
2tphH St. Pancras – York via Derby
= 4tph

42. Gelderd Road South Junction – Gelderd Road North Junction
2tphH Tunbridge Wells – Leeds HS – York HS
= 2tph
43. Ryhill Junction – Swillington Common Junction
2tphH Eastbourne – Glasgow
2tphH Newhaven – York – Newcastle / Middlesborough
2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
2tphH HS7 Birmingham HS – Leeds City – Halifax / Skipton
= 8tph
44. Swillington Common Junction – Manston Junction
2tphH Tunbridge Wells – Leeds City – Halifax / Skipton
2tphH HS7 Birmingham HS – Leeds City – Halifax / Skipton
= 4tph
45. Swillington Common Junction – Garforth East Junction
2tphH Eastbourne – Glasgow
2tphH Newhaven – York – Newcastle / Middlesborough
= 4tph
46. Gelderd Road North Junction – Garforth West Junction
2tphH Tunbridge Wells – Leeds HS – York HS
2tphH Brighton – York HS
2tphH HS7 Plymouth – York – Newcastle / Middlesborough
2tphH HS7 Birmingham HS – Leeds HS – York HS
2tphH HS9 Liverpool – York – Newcastle / Middlesborough
2tphH HS9 Liverpool – Newcastle via Hartlepool
2tphH HS9 Preston – Hull
2tphH HS9 Preston – Scarborough
= 16tph
47. Garforth West Junction – Micklefield Junction
2tphH HS9 Liverpool – Newcastle via Hartlepool
2tphH HS9 Preston – Hull
2tphH HS9 Preston – Scarborough
= 6tph
48. Garforth West Junction – Garforth East Junction
2tphH Tunbridge Wells – Leeds HS – York HS
2tphH Brighton – York HS
2tphH HS7 Plymouth – York – Newcastle / Middlesborough
2tphH HS7 Birmingham HS – Leeds HS – York HS
2tphH HS9 Liverpool – York – Newcastle / Middlesborough
= 10tph

49. Garforth East Junction – Ulleskelf Junction
 2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle / Middlesborough
 2tphH Tunbridge Wells – Leeds HS – York HS
 2tphH Brighton – York HS
 2tphH HS7 Plymouth – York – Newcastle / Middlesborough
 2tphH HS7 Birmingham HS – Leeds HS – York HS
 2tphH HS9 Liverpool – York – Newcastle / Middlesborough
 = 14tph
50. Ulleskelf Junction – Holgate Junction
 2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle / Middlesborough
 2tphH Tunbridge Wells – Leeds HS – York HS
 2tphH Brighton – York HS
 2tphH HS7 Plymouth – York – Newcastle / Middlesborough
 2tphH HS7 Birmingham HS – Leeds HS – York HS
 2tphH HS9 Liverpool – York – Newcastle / Middlesborough
 2tphH HS9 Liverpool – Newcastle via Hartlepool
 2tphH St. Pancras – York via Derby
 2tphR St. Pancras – York via Melton Mowbray
 = 20tph
51. Holgate Junction – York HS station
 2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle / Middlesborough
 2tphH Tunbridge Wells – Leeds HS – York HS
 2tphH Brighton – York HS
 2tphH HS7 Plymouth – York – Newcastle / Middlesborough
 2tphH HS7 Birmingham HS – Leeds HS – York HS
 2tphH HS9 Liverpool – York – Newcastle / Middlesborough
 = 14tph
52. York HS station – Poppleton Junction
 2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle
 2tphH Newhaven – York – Middlesborough
 2tphH HS7 Plymouth – York – Newcastle
 2tphH HS7 Plymouth – York – Middlesborough
 2tphH HS9 Liverpool – York – Newcastle
 2tphH HS9 Liverpool – York – Middlesborough
 = 14tph
53. Poppleton Junction – Romanby Junction
 2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle
 2tphH Newhaven – York – Middlesborough

2tphH HS7 Plymouth – York – Newcastle
 2tphH HS7 Plymouth – York – Middlesbrough
 2tphH HS9 Liverpool – York – Newcastle
 2tphH HS9 Liverpool – York – Middlesbrough
 2tphH HS9 Liverpool – Newcastle via Hartlepool
 2tphH HS6 St. Pancras (East) – Edinburgh
 = 18tph

54. Romanby Junction – Derwent Hill Junction

2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle
 2tphH HS7 Plymouth – York – Newcastle
 2tphH HS9 Liverpool – York – Newcastle
 = 8tph

55. Derwent Hill Junction – Stocksfield Junction

2tphH Eastbourne – Glasgow
 = 2tph

56. Derwent Hill Junction – Paradise Junction

2tphH Newhaven – York – Newcastle
 2tphH HS7 Plymouth – York – Newcastle
 2tphH HS9 Liverpool – York – Newcastle
 = 6tph

57. Paradise Junction – Newcastle

2tphH Newhaven – York – Newcastle
 2tphH HS7 Plymouth – York – Newcastle
 2tphH HS9 Liverpool – York – Newcastle
 2tphH Newcastle – Glasgow
 2tphH Newcastle – Carlisle
 = 10tph

58. Paradise Junction – Stocksfield Junction

2tphH Newcastle – Glasgow
 2tphH Newcastle – Carlisle
 = 4tph

59. Stocksfield Junction – Tyne Green Junction

2tphH Eastbourne – Glasgow
 2tphH Newcastle – Glasgow
 2tphH Newcastle – Carlisle
 = 6tph

60. Tyne Green Junction – Hawick

2tphH Eastbourne – Glasgow
 2tphH Newcastle – Glasgow
 = 4tph

61. Hawick – Ravenwood Junction
2tphH Eastbourne – Glasgow
2tphH Newcastle – Glasgow
2tphH HS14 Hawick – Inverness
2tphR Hawick – Perth via Ladybank
2tphR Hawick – Dundee via Ladybank
= 10tph
62. Ravenwood Junction – Newcraighall HS
2tphH Eastbourne – Glasgow
2tphH Newcastle – Glasgow
2tphH HS14 Hawick – Inverness
= 6tph
63. Newcraighall HS – Edinburgh HS
2tphH Eastbourne – Glasgow
2tphH Newcastle – Glasgow
2tphH HS14 Hawick – Inverness
4tphH HS13 Newcraighall HS – Dalmeir
2tphH HS14 Newcraighall HS – Aberdeen (‘fast’)
2tphH HS14 Newcraighall HS – Aberdeen (‘stopping’)
2tphH HS14 Newcraighall HS – Aberdeen (via Dundee)
= 14tph

Service Plan 6

HS3 UHS:

- 2tphH Eastbourne – Lewes – Gatwick Airport – East Croydon – Victoria (LL) – Pancras Cross – York HS – Darlington Bank Top – Durham Relly Mill – Consett – Hexham – Hawick – Edinburgh Waverley HS – Haymarket HS – Edinburgh Airport – Bellgrove – Glasgow St. Enoch
- 2tphH Newhaven Marine – Newhaven Town – Lewes – Gatwick Airport – East Croydon – Victoria (LL) – Pancras Cross – South Yorkshire HL – York HS (splits / joins) – :
– Darlington Bank Top – Durham Relly Mill – Consett – Newcastle
– Northallerton – Eaglescliffe – Yarm – Thornaby – Middlesborough
- 2tphH Tunbridge Wells West – Tunbridge Wells – Tonbridge – East Croydon – Victoria (LL) – Pancras Cross – Sheffield HS – Manchester HS – Manchester Victoria (LL) – Liverpool Lime St.
- 2tphH Tunbridge Wells West – Tunbridge Wells – Tonbridge – East Croydon – Victoria (LL) – Pancras Cross – Sheffield HS – Manchester HS – Manchester Victoria (LL) – Bolton – Preston
- 2tphH Tunbridge Wells West – Tunbridge Wells – Tonbridge – East Croydon – Victoria (LL) – Pancras Cross – South Yorkshire – Wakefield Westgate – Leeds HS – York HS
- 2tphH Tunbridge Wells West – Tunbridge Wells – Tonbridge – East Croydon – Victoria (LL) – Pancras Cross – South Yorkshire HL – Leeds City (splits / joins) – :
– Shipley – Bradford City – Halifax
– Shipley – Keighley – Skipton
- 2tphH Portsmouth & Southsea – Hayling Island – Chichester – Arundel HS – Horsham – Gatwick Airport – East Croydon – Victoria (LL) – Pancras Cross – Chesterfield – Sheffield Midland (splits / joins) – :
– Rotherham – South Yorkshire LL
– Barnsley
- 2tphH Portsmouth & Southsea – Hayling Island – Chichester – Arundel HS – Horsham – Gatwick Airport – East Croydon – Victoria (LL) – Pancras Cross – Chesterfield – Sheffield Midland – Rotherham – South Yorkshire LL – Doncaster – Goole – Gilberdyke – Hull Paragon
- 2tphH Portsmouth & Southsea – Hayling Island – Chichester – Arundel HS – Horsham – Gatwick Airport – East Croydon – Victoria (LL) – Pancras Cross – Nottingham – Derby
- 2tphH Newcastle – Hexham – Hawick – Lauder – Edinburgh Waverley HS – Haymarket HS – Edinburgh Airport – Glasgow Bellgrove – Glasgow St. Enoch

HS Metro:

- 2tphH Brighton – Gatwick Airport – East Croydon – Victoria (LL) – Pancras Cross – West Hampstead – Luton & Dunstable Parkway – Milton Keynes Parkway – Northampton Castle – Leicester – Nottingham – Sheffield HS – Huddersfield – Leeds HS – York HS
- 2tphH Brighton – Gatwick Airport – East Croydon – Victoria (LL) – Pancras Cross – West Hampstead – Luton & Dunstable Parkway – Milton Keynes Parkway – Northampton Castle – Leicester – Nottingham – Sheffield HS – Manchester HS – Manchester Victoria (LL) – Bolton – Preston
- 2tphH Chichester – Worthing – Shoreham-by-Sea – Hove – Gatwick Airport – East Croydon – Victoria (LL) – Pancras Cross – West Hampstead – Luton & Dunstable Parkway – Milton Keynes Parkway – Northampton Castle – Leicester – Melton Mowbray (reverse) – Nottingham – Derby

- 2tphH St. Pancras West – West Hampstead – Luton & Dunstable Parkway – Milton Keynes Parkway – Northampton Castle – Leicester – Loughborough – Derby – Chesterfield – Sheffield Midland – Rotherham – Wakefield Westgate – Leeds City – Micklefield – York
- 2tphH St. Pancras West – West Hampstead – Luton & Dunstable Parkway – Milton Keynes Parkway – Northampton Castle – Leicester – East Midlands Parkway – Derby – Matlock – Bakewell – Miller’s Dale (from/to Buxton) – Chinley – Stockport – Manchester Piccadilly (alternatively: – Derby – Chesterfield – Sheffield Midland (revers) – Chinley – if the Peak route has not yet been reopened.)
- 2tphH St. Pancras West – West Hampstead – Luton & Dunstable Parkway – Milton Keynes Parkway – Northampton Castle – Rugby HS – Coventry HS – Birmingham International – Birmingham New St. – Wolverhampton (splits/joins) – :
– Stafford – Crewe – Runcorn – Liverpool South Parkway – Liverpool Lime St.
– Telford – Wellington – Shrewsbury – Wrexham – Chester
- 2tphH St. Pancras West – West Hampstead – Luton & Dunstable Parkway – Milton Keynes Parkway – Northampton Castle – Rugby HS – Coventry HS – Birmingham International – Birmingham New St. – University – Bromsgrove – Droitwich Spa – Worcester Shrub Hill (NB this was formerly a RM service)
- 2tphH Bournemouth West – Bournemouth Central – Brockenhurst – Southampton – Southampton Airport Parkway – Winchester – Basingstoke – Reading (reverse) – Oxford – Banbury – Rugby (GC) – Leicester – Nottingham –South Yorkshire HS – York HS (splits / joins) – :
– Darlington – Durham Relly Mill – Consett – Newcastle
– Northallerton – Yarm – Eaglescliffe – Thornaby – Middlesborough
(NB this is in addition to the RM Bournemouth West – York service)
- 2tphH Paddington – Old Oak Common – LHR Interchange – Slough – Maidenhead – Bourne End (to/from Marlow) – High Wycombe – Princes Risborough – Calvert – Rugby (GC) – Leicester – Melton Mowbray (reverse) – Nottingham – Derby
- 2tphH Whitehaven Bransty – Workington – Maryport – Carlisle Citadel – Riddings – Newcastleton – Hawick – Lauder – Edinburgh Waverley HS – Haymarket HS – Edinburgh Airport – Glasgow Bellgrove – Glasgow St. Enoch
- 2tphH Newcastle – Hexham – Haydon Bridge – Bardon Mill – Haltwhistle – Brampton – Wetheral – Carlisle Citadel (reverse) – Dalston – Wigton – Aspatria – Maryport – Flimby – Workington – Harrington – Parton – Whitehaven Bransty

MML and other Regional Metro:

- 2tphR St. Pancras – West Hampstead – St. Albans – Luton Airport Parkway – Luton – Bedford – Wellingborough – Kettering – Market Harborough – Leicester – Loughborough – Attenborough – Beeston - Nottingham
- 2tphR St. Pancras – West Hampstead– St. Albans – Luton Airport Parkway – Luton – Bedford – Wellingborough – Kettering – Market Harborough – Leicester – East Midlands Parkway – Attenborough – Beeston - Nottingham
- 2tphR St. Pancras – West Hampstead– St. Albans – Luton Airport Parkway – Luton – Bedford – Wellingborough – Kettering – Corby – Oakham – Melton Mowbray – Nottingham – Langley Mill – Alfreton & Mansfield Parkway – Chesterfield – Sheffield Midland – Rotherham – Pontefract – York (note that this uses HS3 on the approach to Nottingham)

- 2tphR (Thameslink) Brighton → Bedford – Olney – Northampton
- 2tphR Worcester Shrub Hill – Droitwich Spa – Bromsgrove – University – Birmingham New St. – Coleshill Parkway – Nuneaton – Hinckley – Leicester – Melton Mowbray – Oakham – Stamford – Peterborough – March – Ely – Bury St. Edmunds – Ipswich – Harwich International – Harwich Town
- 2tphR Bournemouth West – Bournemouth Central – Brockenhurst – Southampton – Southampton Airport Parkway – Winchester – Basingstoke – Reading – Oxford – Banbury – Leamington Spa – Kenilworth – Coventry – Birmingham Int'l – Birmingham New St. (reverse) – Tamworth – Burton-on-Trent – Derby – Chesterfield – Sheffield – Rotherham – Wakefield Westgate – Leeds City – Micklefield – York
- 2tphR Plymouth – Ivybridge – Totnes – Newton Abbot – Teignmouth – Dawlish – Exeter St. David's – Cullompton – Tiverton Junction – Taunton – Bridgwater – Highbridge – Weston Super Mare – Bristol Temple Meads – Bristol Parkway – Gloucester (reverse) – Cheltenham Spa – Ashchurch – Worcester Shrub Hill – Droitwich Spa – Bromsgrove – University – Birmingham New St. – Tamworth – Burton on Trent – Derby – Chesterfield – Sheffield – Rotherham – Wakefield Westgate – Leeds City – Micklefield – York
- 2tphR Norwich – Wymondham – Thetford – Ely (reverse) –
2tphR Stansted Airport – Cambridge – Ely (joins / splits) –
– March – Peterborough – Stamford – Oakham – Melton Mowbray – Nottingham – Langley Mill – Alfreton and Mansfield Parkway – Chesterfield – Sheffield (reverse) – Chinley – Stockport – Manchester Piccadilly – Manchester Oxford Road – Salford Crescent – Bolton – Horwich Parkway – Chorley – Leyland – Preston – Lancaster – Morecambe
- 2tphR York – Thirsk – Northallerton – Darlington – Durham – Chester le St+reet – Newcastle – Morpeth – Alnmouth – Berwick-upon-Tweed – Dunbar – Drem – Edinburgh Waverley
- 2tphRS (Tees Valley Metro) Bishop Auckland – Shildon – Newton Aycliffe – Heighington – North Road – Darlington – Dinsdale – Tees-Side Airport – Allen's West – Eaglescliffe – Thornaby – Middlesborough – British Steel (Redcar) – Redcar Central – Redcar East – Marske – Saltburn

HS7 North of Birmingham:

- 2tphH Plymouth – Exeter St. David's – Taunton – Bristol Temple Meads HS – Bristol Parkway HS – Cheltenham Spa – Worcester Shrub Hill – Birmingham Interchange – Derby – Sheffield HS – Huddersfield – Leeds HS – York HS (splits / joins) – :
– Darlington – Durham (Relly Mill) – Consett – Newcastle
– Northallerton – Yarm – Eaglescliffe – thornaby – Middlesborough
- 2tphH Swansea – Port Talbot – Cardiff (Rhoose) Airport – Cardiff HS – Bristol Parkway HS – Cheltenham Spa – Worcester Shrub Hill – Birmingham Interchange – Derby – Nottingham – Peterborough – Norwich
- 2tphH Birmingham HS – Derby – Sheffield HS – Huddersfield – Leeds HS – York
- 2tphH Birmingham HS – Derby – Chesterfield – Sheffield Midland – South Yorkshire HL – Leeds City (splits / joins) – :
– Shipley – Bradford City – Halifax
– Shipley – Keighley – Skipton
- 2tphH Birmingham HS – Derby – Nottingham – Newark Castle – Lincoln Central – Market Rasen – Grimsby Town – Cleethorpes

- 2tphH Birmingham HS – Derby – Nottingham – Newark Castle – Lincoln Central – Sleaford – Boston – Wainfleet – Skegness

HS8:

- 2tphH Norwich – Ely (reverse) – Peterborough – Nottingham – Sheffield HS – Manchester HS – Manchester Victoria LL – Bolton – Preston
- 2tphH Hull Paragon – Brigg – Gainsborough Central – Retford (LL) – Worksop – Sheffield HS – Manchester HS – Victoria LL – Liverpool Lime St. (NB this was formerly a RM service)
- 2tphH Cleethorpes – Grimsby Town – Brigg – Gainsborough Central – Retford (LL) – Worksop – Sheffield HS – Manchester HS – Victoria LL – Bolton – Preston
(NB this was formerly a RM service)
- 2tphH Skegness – Wainfleet – Boston – Sleaford – Lincoln – Gainsborough Lea Rd. – Retford (LL) – Worksop – Sheffield HS – Manchester HS – Victoria LL – Liverpool Lime St.
(NB this was formerly a RM service)

HS9:

- 2tphH Liverpool Lime Street – Manchester Victoria (LL) – Manchester HS – Huddersfield – Leeds HS – York HS (splits / joins) – :
– Darlington – Durham (Relly Mill) – Consett – Newcastle
– Northallerton – Yarm – Eaglescliffe – Thornaby – Middlesbrough
- 2tphH Liverpool Lime Street – Manchester Victoria (LL) – Manchester HS – Huddersfield – Leeds HS – Micklefield – York – Thirsk – Northallerton – Yarm – Eaglescliffe – Stockton – Hartlepool – Seaham – Sunderland - Newcastle
- 2tphH Preston – Bolton – Manchester Victoria (LL) – Manchester HS – Huddersfield – Leeds HS – Micklefield – Selby – Hull
- 2tphH Preston – Bolton – Manchester Victoria (LL) – Manchester HS – Huddersfield – Leeds HS – Micklefield – York – Malton – Seamer – Scarborough

HS6:

- 2tphH St. Pancras (East) – Stratford HS North – Stansted Airport – Cambridge – Ely – Peterborough – Doncaster – York (splits / Joins) – :
– Darlington – Durham – Newcastle – Morpeth – Alnmouth – Berwick – Dunbar – Drem –
Edinburgh Waverley
– Thirsk – Northallerton – Yarm – Eaglescliffe – Stockton – Hartlepool – Seaham – Sunderland -
Newcastle
- 2tphH St. Pancras (East) – Stratford HS North – Stansted Airport – Cambridge – Ely – Peterborough – Grantham – Newark Northgate – Retford HL – Doncaster – Wakefield Westgate – Leeds City

[HS2 Scottish Extension:

- 2tphH Eastbourne – Bexhill – St. Leonards Warrior Square – Hastings – Ore – Winchelsea – Rye Appledore – Ashford – Ebbsfleet – Stratford HS South – Euston Cross – Old Oak Common – Preston – Carlisle – Hawick – Edinburgh Waverley HS – Haymarket – Edinburgh Airport – Bellgrove – Glasgow St. Enoch

- 2tphH Birmingham HS – Crewe – Preston – Carlisle – Hawick – Edinburgh Waverley HS – Haymarket – Edinburgh Airport – Bellgrove – Glasgow St. Enoch
- 2tphH Liverpool Lime St. – Preston – Carlisle – Hawick – Edinburgh Waverley HS – Haymarket – Edinburgh Airport – Bellgrove – Glasgow St. Enoch

This is included for completeness. The Waverley service from (Whitehaven –) Carlisle – Hawick – Glasgow has been included with the HS3 services, as this is intended independently of the HS2 extension, and it shares the Lauder service with Newcastle - Glasgow.]

Representative Hourly Non-Cross-Platform Interchange Pattern at Bedford:

- 00R St. Pancras – York via Melton Mowbray
R (Thameslink) Brighton – Bedford
- 07R St. Pancras – Nottingham (calling at East Midlands Parkway)
(Thameslink) Horsham – Northampton
- 15R St. Pancras – Birmingham New St. – Worcester
R (Thameslink) Brighton – Corby
- 23R St. Pancras – Nottingham (calling at Loughborough)
(Thameslink) Horsham – Northampton

– repeating at 30, 37, 45 and 53 minutes past.

Representative Hourly Non-Cross-Platform Interchange Pattern at Milton Keynes Parkway (the EWR services make cross-platform connections between themselves):

- 00H Brighton – York (not cross-platform)
R Plymouth – Norwich
RS Buckingham – Bedford
- 05H St Pancras – Wolverhampton – Liverpool / Chester
(connects into the following EWR services)
- 07H St. Pancras – Derby – Sheffield – York (not cross-platform)
RS Oxford – Cambridge
RS Milton Keynes – Bedford
- 12H Chichester – Derby
(connects into the following EWR services)
- 15H Brighton – Preston (not cross-platform)
R Plymouth – Cleethorpes
RS Buckingham – Bedford
- 20H St. Pancras – Birmingham New St. – Worcester Shrub Hill
(connects into the following EWR services)

23H St. Pancras – Derby – Matlock (or Sheffield) – Manchester (not cross-platform)
R Weymouth – York
RS Milton Keynes – Bedford

– repeating at 30, 35, 37, 42, 45, 50 and 53 minutes past.

Representative Hourly Interchange Pattern at Northampton (the HS3/MML connections are not cross-platform, but the intra-WCML ones are; see the WCML Service Plans article for full details of these):

00H Brighton – York (not cross-platform)
R Euston – Crewe via Stoke
R Euston – Rugby

05H St. Pancras – Wolverhampton – Liverpool / Chester (not cross-platform)
R (Thameslink) Brighton – Northampton

07H St. Pancras – Derby – Sheffield – York (not cross-platform)
R Euston – Birmingham New St.

12H Chichester – Derby

15H Brighton – Preston (not cross-platform)
R Euston – Crewe via Stafford
R Euston – Rugby

20R St. Pancras – Birmingham New St. – Worcester
R (Thameslink) Brighton – Northampton

23H St. Pancras – Derby – Matlock (or Sheffield) – Manchester (not cross-platform)
R Euston – Barrow in Furness

– repeating at 30, 35, 37, 42, 45, 50 and 53 minutes past.

Representative Hourly Cross-Platform Interchange Pattern at Leicester:

00H Brighton – York
(no connection)

05R St. Pancras – East Midlands Parkway – Nottingham
H St. Pancras – Loughborough – Derby – Sheffield – York

12H Chichester – Derby via Melton Mowbray
(no connection)

15H Brighton – Preston
R Harwich Town – Worcester Shrub Hill

20H Bournemouth West – Newcastle / Middlesborough
(no connection)

23H St. Pancras – East Midlands Parkway – Derby – Matlock/Sheffield – Manchester
R St. Pancras – Loughborough – Nottingham

25H Paddington – Derby via Melton Mowbray
 (no connection)

– repeating at 30, 35, 42, 45, 50, 53 and 55 minutes past. Note that the connecting pairs involving a RM Nottingham service depart in the order stated, thus the RM St. Pancras – Nottingham service, calling at East Midlands Parkway (but not Loughborough) departs before the HS-C St. Pancras – York service, calling at Loughborough (but not EM Parkway). Likewise the HS-C St. Pancras – Manchester service, calling at East Midlands Parkway (but not Loughborough) departs before the RM St. Pancras – Nottingham service, calling at Loughborough (but not EM Parkway). This ensures that Loughborough and East Midlands Parkway stations each have 4tph, alternatively to Derby and points north, or to Nottingham, but no HS-C or RM train serves both. (There is a stopping service between Leicester and Derby, which does.)

Representative Hourly (non-cross-platform) Interchange Pattern at Derby:

00H HS7 Plymouth – Newcastle / Middlesbrough
 H Derby – Portsmouth and Southsea (provides fast connection to Nottingham)
 R Bournemouth West – York

05H HS7 Birmingham – York
 H Derby – Paddington (HS Metro; provides fast connection to Nottingham and Melton Mowbray)
 H St. Pancras – Matlock (or Sheffield) – Manchester

10H HS7 Birmingham – Cleethorpes
 (no connection)

15H HS4/HS7 Swansea – Norwich
 H Derby – Chichester (HS Metro; provides connection to Nottingham and Melton Mowbray for:)
 R Plymouth – York

20H HS7 Birmingham – Halifax / Skipton
 H St. Pancras – Sheffield – York

25H HS7 Birmingham – Skegness
 (no connection)

– repeating at 30, 35, 40, 45, 50 and 55 minutes past.

Representative Hourly Cross-Platform Interchange Pattern at Nottingham:

00H HS8 Norwich – Preston
 H Chichester – Derby (HS Metro)

07H Brighton – York
 H HS7 Birmingham – Skegness
 R St. Pancras – Melton Mowbray – York
 R Norwich / Stansted Airport – Morecambe

15H HS8/HS7 Norwich – Swansea (*)
 H Paddington – Derby (*)

- 23H HS3/HS8 Brighton – Preston
- H Portsmouth and Southsea – Derby
- H HS7 Birmingham – Cleethorpes

– repeating at 30, 37, 45 and 53 minutes past. (* The Norwich – Swansea and Paddington - Derby services connect into the following service to Preston – obviously they offer nothing to each other.)

Representative Hourly Cross-Platform Interchange Pattern at Sheffield HS/Midland (refer to the HS Transpennine Routes and Service Plans article for full details of the Regional Metro services). The HS services have cross-platform interchange, and the RM services have longer stops, to allow for the platform change. The pattern is:

- 00H Brighton –York (HS Metro)
 - H HS8 Norwich – Preston
 - R Skegness – Liverpool
 - H Skipton / Halifax – Birmingham HS
 - H Manchester Piccadilly – St. Pancras (HS Metro, **if** travelling via the Hope Valley and Sheffield, rather than the High Peak. If so, reverses at Sheffield Midland and does not make a cross-platform connection.)
- 07H HS7 Plymouth – Newcastle / Middlesbrough
 - H Tunbridge Wells – Preston (UHS)
 - R Cleethorpes – Blackpool
 - H Hull – Portsmouth and Southsea (UHS)
- 15H HS3/HS8 Brighton – Preston
 - H HS7 Birmingham HS – York
 - R Norwich / Stansted Airport – Morecambe
 - H York – St. Pancras (HS Metro)
- 23H HS3/HS8 Tunbridge Wells - Liverpool
 - (no cross-platform connection)
 - R Hull – Southport
 - H Barnsley / South Yorkshire LL – Portsmouth and Southsea (UHS)

– repeating at 30, 37, 45 and 53 minutes past. Note that, in each case, the first two services use Sheffield HS, making cross-platform connections (except, obviously, at 23/53 minutes past, which has only a single service), and the second pair of services use Sheffield Midland, making cross-platform connections between a southbound HS service and a westbound RM transpennine service. It is a quirk of the layout around Sheffield that northbound HS services via the HS platforms and southbound HS services via the Midland platforms both travel through Sheffield in the same NE – SW direction. (The southbound services travel via the classic route through Chesterfield, joining HS3 at Huthwaite Junction – UHS services, or Leicester – HS Metro.)

Representative Hourly Cross-Platform Interchange and Terminating Pattern at York

- 00H Eastbourne – Glasgow
- H Liverpool – Newcastle / Middlesbrough
- H Brighton – York (HS Metro)

- 07H Tunbridge Wells – York (UHS, Leeds fast)
- H HS7 Plymouth – Newcastle / Middlesborough
- H St.Pancras (West) – York (via Derby – not cross platform)
- 15H Newhaven – Newcastle / Middlesborough
- H HS7 Birmingham HS – York
- 23H St. Pancras (East) – Edinburgh
- H Bournemouth West – Newcastle / Middlesborough
- R St. Pancras (West) – York (via Melton Mowbray – not cross-platform)

– repeating at 30, 40, 45 and 55 minutes past. The services terminating at 07 and 23 minutes past are obviously intended for (non-cross-platform) connection into those 7 / 8 minutes later.

Representative Hourly Cross-Platform Interchange Pattern at Darlington:

- 00H Eastbourne – Glasgow
- RS Bishop Auckland – Middlesborough – Saltburn
- 03H Liverpool – Newcastle (/ Middlesborough)
- (no connection)
- 07H Plymouth – Newcastle (/ Middlesborough)
- RS Bishop Auckland – Middlesborough – Saltburn
- 15H Newhaven – Newcastle (/ Middlesborough)
- RS Bishop Auckland – Middlesborough – Saltburn
- 23H Bournemouth West – Newcastle (/ Middlesborough)
- H St. Pancras (East) – Edinburgh (not cross-platform – uses ECML platforms)
- RS Bishop Auckland – Middlesborough – Saltburn

– repeating at 30, 33, 37, 45 and 53 minutes past. Note that the Liverpool – Newcastle service has to be delayed slightly because there is only one HS platform face – the other face is for the contra-flow Tees Valley Metro service (see appendix D).

Representative Hourly Cross-Platform Interchange Pattern at Newcastle:

- 00H Liverpool – Newcastle (/ Middlesborough)
- (no connection)
- 07H Plymouth – Newcastle (/ Middlesborough)
- R York – Edinburgh
- 15H Newhaven – Newcastle (/ Middlesborough)
- (no connection)
- 23H Bournemouth West – Newcastle (/ Middlesborough)
- H St. Pancras (East) – Edinburgh

– repeating at 30, 37, 45 and 53 minutes past.

Representative Hourly Cross-Platform Interchange Pattern at Hexham:

00H Eastbourne – Glasgow
H Newcastle – Carlisle – Whitehaven
R Newcastle – Hexham (all stations)

07H Newcastle – Glasgow
(no connection)

– repeating at 30 and 37 minutes past.

Representative Hourly Cross-Platform Interchange Pattern at Hawick:

00H Eastbourne – Glasgow

07H Hawick – Inverness (departs first)
H Newcastle – Glasgow (calls Lauder)
R Hawick – Dundee via Ladybank

23H (Whitehaven –) Carlisle – Glasgow (calls Lauder)
R Hawick – Perth via Ladybank

– repeating at 30, 37 and 53 minutes past. With the addition of the service from (Whitehaven –) Carlisle – Glasgow, the Newcastle – Glasgow service has been retimes to provide with it a regular 15 minute service for Lauder.

[First thoughts for the HS2 Scottish Extension, with an extra 2tph to Glasgow from each of Eastbourne, Birmingham and Liverpool, is to have an even departure pattern from Hawick:

00H Eastbourne – Glasgow

05H [HS2] Birmingham – Glasgow

10H Hawick – Inverness (departs first)
H Newcastle – Glasgow (calls Lauder)
R Hawick – Dundee via Ladybank

15H [HS2] Eastbourne – Glasgow

20H [HS2] Liverpool – Glasgow

25H [HS2] (Whitehaven –) Carlisle – Glasgow (calls Lauder)
R Hawick – Perth via Ladybank

– repeating at 30, 35, 40, 45, 50 and 55 minutes past.

An alternative, perhaps preferable, approach would be to ensure a regular arrival pattern at Edinburgh. This would require the Lauder services' departures from Hawick to be moved forward by ~7 minutes, for the following departure to overtake at Lauder. This really doesn't need to be decided now.]

Adding the new services introduced in service plan 6 to those of plan 5 imposes the following loadings on HS3. Note that we now, between London and Wales Junction, distinguish between main lines (the inner pair of the 4 tracks) and relief lines (the outer tracks). Also the main lines are the two tracks directly linking Wales Junction and Garforth East Junction via South Yorkshire. Generally speaking, the main lines carry the UHS services, and the relief lines the HS-Metro and HS-C services, though this is not an absolute distinction, since UHS services travel to Manchester and Liverpool / Preston via Sheffield, and to Derby via Nottingham. North of Romanby Junction there are only 2 tracks anyway, so the main/relief distinction expires.

Main Lines:

• Pancras Cross	– Stanford Junction	18tph
• Stanford Junction	– Nuthall South Junction	16tph
• Nuthall South Junction	– Wales Junction	14tph
• Wales Junction	– Denaby Main Junction	10tph
• Denaby Main Junction	– Ryhill Junction	12tph
• Ryhill Junction	– Crofton Junction	2tph
• Crofton Junction	– Gelderd Road South Junction	4tph
• Gelderd Road South Junction	– Gelderd Rd. North Junction	2tph
• Ryhill Junction	– Swillington Common Junction	10tph
• Swillington Common Jn.	– Manston Junction	4tph
• Swillington Common Jn.	– Garforth East Junction	6tph
• Garforth East Junction	– Ulleskelf Junction	14tph
• Ulleskelf Junction	– Holgate Junction	20tph
• Holgate Junction	– York HS station	14tph
• York HS station	– Poppleton Junction	18tph
• Poppleton Junction	– Romanby Junction	22tph
• Romanby Junction	– Derwent Hill Junction	10tph
• Derwent Hill Junction	– Stocksfield Junction	2tph
• Derwent Hill Junction	– Paradise Junction	8tph
• Newcastle	– Paradise Junction	12tph
• Paradise Junction	– Blaydon East Junction	4tph
• Blaydon East Junction	– Stocksfield Junction	4tph
• Stocksfield	– Tynegreen Junction	6tph
• Tynegreen Junction	– Riccarton North Junction	4tph
• Riccarton North Junction	– Hawick	6tph
• Hawick	– Ravenwood Junction	10tph
• Ravenwood Junction	– Newcraighall HS	6tph
• Newcraighall HS	– Edinburgh HS	6tph

Relief Lines:

• Pancras Cross	– West Hampstead Junction	6tph
• St. Pancras West	– West Hampstead Junction	14tph
• West Hampstead Junction	– Watford Gap Junction	14tph
• Watford Gap Junction	– Onley Junction (HS2-CV)	4tph
• Watford Gap Junction	– Cotesbach Junction	10tph
• Rugby HS Junctn (HS2-CV)	– Cotesbach Junction	4tph
• Cotesbach Junction	– Regent St. Junction	14tph
• Regent St. Junction	– Swain St. Junction	14tph
• Swain St. Junction	– Stanford Junction	6tph
• Stanford Junction	– Edwalton Junction	8tph
• Asfordby Junction (HS8)	– Edwalton Junction	10tph
• Edwalton Junction	– Manvers St. Junction	18tph
• Manvers St. Junction	– Nottingham HS station	206tph
• Manvers St. Junction	– Nottingham (classic) station	2tph
• Nottingham HS station	– Strelley Junction	20tph
• Strelley Junction	– Awsworth Junction	12tph
• Strelley Junction	– Nuthall South Junction	8tph
• Nuthall South Junction	– Nuthall North Junction	8tph
• Awsworth Junction	– Nuthall North Junction	6tph
• Nuthall North Junction	– Huthwaite Junction	14tph
• Huthwaite Junction	– Stonebroom Junction	4tph
• Stonebroom Junction	– Old Denaby Junction	4tph
• Old Denaby Junction	– South Yorkshire LL	2tph
• Old Denaby Junction	– Denaby Main Junction	2tph
• Huthwaite Junction	– Wales Junction	10tph
• Wales Junction	– Waleswood Junction	14tph
• Waleswood Junction	– Woodburn HS Junction	20tph
• Woodburn HS Junction	– Ladybower Junction	20tph
• Ladybower Junction	– Guide Bridge HS Junction	14tph
• Ladybower Junction	– Paddock Junction	6tph
• Paddock Junction	– Gelderd Rd. North Junction	14tph
• Gelderd Rd. North Junction	– Garforth West Junction	16tph
• Garforth West Junction	– Garforth East Junction	10tph
• Garforth West Junction	– Micklefield Junction	6tph

Elucidation of Main Line Loadings:

1. Pancras Cross – Stanford Junction
 2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle / Middlesborough
 4tphH Tunbridge Wells – Sheffield – Manchester – Liverpool / Preston alternately
 2tphH Tunbridge Wells – Leeds HS – York HS
 2tphH Tunbridge Wells – Halifax / Skipton
 2tphH Portsmouth & Southsea – Sheffield Midland – South Yorkshire LL / Barnsley
 2tphH Portsmouth & Southsea – Sheffield Midland – Hull Paragon
 2tphH Portsmouth & Southsea – Nottingham – Derby (to relief line)
 = 18tph
2. Stanford Junction – Nuthall South Junction (direct)
 2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle / Middlesborough
 4tphH Tunbridge Wells – Sheffield – Manchester – Liverpool / Preston alternately
 2tphH Tunbridge Wells – Leeds HS – York HS
 2tphH Tunbridge Wells – Halifax / Skipton
 2tphH Portsmouth & Southsea – Sheffield Midland – South Yorkshire LL / Barnsley
 2tphH Portsmouth & Southsea – Sheffield Midland – Hull Paragon (last two to relief line)
 = 16tph
3. Nuthall South Junction – Wales Junction
 2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle / Middlesborough
 2tphH Bournemouth – York – Newcastle / Middlesborough (from relief line)
 4tphH Tunbridge Wells – Sheffield – Manchester – Liverpool / Preston alternately
 (to relief line)
 2tphH Tunbridge Wells – Leeds HS – York HS
 2tphH Tunbridge Wells – Halifax / Skipton
 = 14tph
4. Wales Junction – Denaby Main Junction
 2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle / Middlesborough
 2tphH Bournemouth – York – Newcastle / Middlesborough
 2tphH Tunbridge Wells – Leeds HS – York HS
 2tphH Tunbridge Wells – Halifax / Skipton
 = 10tph
5. Denaby Main Junction – Ryhill Junction
 2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle / Middlesborough
 2tphH Bournemouth – York – Newcastle / Middlesborough
 2tphH Tunbridge Wells – Leeds HS – York HS
 2tphH Tunbridge Wells – Halifax / Skipton

2tphH Birmingham HS – Halifax / Skipton (from classic section vis Sheffield Midland)
= 12tph

6. Ryhill Junction – Crofton Junction

2tphH Tunbridge Wells – Leeds HS – York HS
= 2tph

7. Crofton Junction – Gelderd Road South Junction (classic section)

2tphH Tunbridge Wells – Leeds HS – York HS
2tphH St. Pancras – York via Derby
= 4tph

8. Gelderd Road South Junction – Gelderd Road North Junction

2tphH Tunbridge Wells – Leeds HS – York HS
= 2tph

9. Ryhill Junction – Swillington Common Junction

2tphH Eastbourne – Glasgow
2tphH Newhaven – York – Newcastle / Middlesborough
2tphH Bournemouth – York – Newcastle / Middlesborough
2tphH Tunbridge Wells – Halifax / Skipton
2tphH Birmingham HS – Halifax / Skipton
= 10tph

10. Swillington Common Junction – Manston Junction

2tphH Tunbridge Wells – Halifax / Skipton
2tphH Birmingham HS – Halifax / Skipton
= 4tph

11. Swillington Common Junction – Garforth East Junction

2tphH Eastbourne – Glasgow
2tphH Newhaven – York – Newcastle / Middlesborough
2tphH Bournemouth – York – Newcastle / Middlesborough
= 6tph

12. Garforth East Junction – Ulleskelf Junction

2tphH Eastbourne – Glasgow
2tphH Brighton – York HS (from HS9)
2tphH Newhaven – York – Newcastle / Middlesborough
2tphH Bournemouth – York – Newcastle / Middlesborough
2tphH HS7 Plymouth – York – Newcastle / Middlesborough (from HS9)
2tphH HS9 Liverpool – York – Newcastle / Middlesborough (from HS9)
2tphH HS7 Birmingham HS – York HS (from HS9)
= 14tph

13. Ulleskelf Junction – Holgate Junction (classic section)

2tphH Eastbourne – Glasgow
2tphH Brighton – York HS
2tphH Newhaven – York – Newcastle / Middlesborough

2tphH Bournemouth – York – Newcastle / Middlesborough
 2tphH HS7 Plymouth – York – Newcastle / Middlesborough
 2tphH HS9 Liverpool – York – Newcastle / Middlesborough
 2tphH HS7 Birmingham HS – York HS
 2tphH HS9 Liverpool – Newcastle via Hartlepool (to York classic station)
 2tphH St. Pancras – York via Derby
 2tphR St. Pancras – York via Melton Mowbray
 = 20tph

14. Holgate Junction – York HS station

2tphH Eastbourne – Glasgow
 2tphH Brighton – York HS
 2tphH Newhaven – York – Newcastle / Middlesborough
 2tphH Bournemouth – York – Newcastle / Middlesborough
 2tphH HS7 Plymouth – York – Newcastle / Middlesborough
 2tphH HS9 Liverpool – York – Newcastle / Middlesborough
 2tphH HS7 Birmingham HS – York HS
 = 14tph

15. York HS station – Poppleton Junction

2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle
 2tphH Bournemouth – York – Newcastle
 2tphH HS7 Plymouth – York – Newcastle
 2tphH HS9 Liverpool – York – Newcastle
 2tphH Newhaven – York – Middlesborough
 2tphH Bournemouth – York – Middlesborough
 2tphH HS7 Plymouth – York – Middlesborough
 2tphH HS9 Liverpool – York – Middlesborough
 = 18tph

16. Poppleton Junction – Romanby Junction (classic section)

2tphH Eastbourne – Glasgow
 2tphH Newhaven – York – Newcastle
 2tphH Bournemouth – York – Newcastle
 2tphH HS7 Plymouth – York – Newcastle
 2tphH HS9 Liverpool – York – Newcastle
 2tphH Newhaven – York – Middlesborough
 2tphH Bournemouth – York – Middlesborough
 2tphH HS7 Plymouth – York – Middlesborough
 2tphH HS9 Liverpool – York – Middlesborough
 2tphH HS9 Liverpool – Newcastle via Hartlepool (from York classic station)
 2tphH HS6 St. Pancras East – Edinburgh (from York classic station)
 = 22tph

17. Romanby Junction – Derwent Hill Junction
2tphH Eastbourne – Glasgow
2tphH Newhaven – York – Newcastle
2tphH Bournemouth – York – Newcastle
2tphH HS7 Plymouth – York – Newcastle
2tphH HS9 Liverpool – York – Newcastle
= 10tph
18. Derwent Hill Junction – Stocksfield Junction
2tphH Eastbourne – Glasgow
= 2tph
19. Derwent Hill Junction – Paradise Junction
2tphH Newhaven – York – Newcastle
2tphH Bournemouth – York – Newcastle
2tphH HS7 Plymouth – York – Newcastle
2tphH HS9 Liverpool – York – Newcastle
= 8tph
20. Paradise Junction – Newcastle
2tphH Newhaven – York – Newcastle
2tphH Bournemouth – York – Newcastle
2tphH HS7 Plymouth – York – Newcastle
2tphH HS9 Liverpool – York – Newcastle
2tphH Newcastle – Glasgow
2tphH Newcastle – Carlisle
= 12tph
21. Paradise Junction – Bladon East Junction
2tphH Newcastle – Glasgow
2tphH Newcastle – Carlisle
= 4tph
22. Bladon East Junction – Stocksfield Junction (classic section)
2tphH Newcastle – Glasgow
2tphH Newcastle – Carlisle
= 4tph
23. Stocksfield Junction – Tyne Green Junction (classic section)
2tphH Eastbourne – Glasgow
2tphH Newcastle – Glasgow
2tphH Newcastle – Carlisle
= 6tph
24. Tyne Green Junction – Riccarton North Junction
2tphH Eastbourne – Glasgow
2tphH Newcastle – Glasgow
= 4tph

25. Riccarton North Junction – Hawick
2tphH Eastbourne – Glasgow
2tphH Newcastle – Glasgow
2tphH HS2 (Whitehaven –) Carlisle – Glasgow
= 6tph
26. Hawick – Ravenwood Junction
2tphH Eastbourne – Glasgow
2tphH Newcastle – Glasgow (calls Lauder)
2tphH HS2 (Whitehaven –) Carlisle – Glasgow (calls Lauder)
2tphH Hawick – Inverness
2tphR Hawick – Perth via Ladybank
2tphR Hawick – Dundee via Ladybank
= 12tph
27. Ravenwood Junction – Newcraighall HS – Edinburgh Waverley HS – Glasgow St. Enoch
2tphH Eastbourne – Glasgow
2tphH Newcastle – Glasgow (calls Lauder)
2tphH HS2 (Whitehaven –) Carlisle – Glasgow (calls Lauder)
2tphH Hawick – Inverness
= 8tph

The service from Whitehaven and Carlisle to Glasgow is not part of the HS2 Scottish Extension. It depends rather on the restoration of the Waverley route through to Carlisle (ideally with a relocated route to HS standards between Riccarton North Junction and Newcastleton).

The HS2 Scottish Extension would add an extra 2tph from each of Eastbourne, Birmingham and Liverpool. The obvious plan is to route them through to Glasgow, but I'm intrigued by the idea of merging them with the three services from (Newcraighall HS –) Edinburgh to Aberdeen. It's a nice idea, but would the technology be good enough to deliver the necessary HS standards of timekeeping over such long distances. By the time we're ready to build it, possibly so, but the idea is worth documenting anyway.

Elucidation of Relief Line Loadings:

1. Pancras Cross – West Hampstead Junction
2tphH Brighton – York
2tphH Brighton – Preston
2tphH Chichester – Derby via Melton Mowbray
= 6tph
2. St. Pancras West – West Hampstead Junction
2tphH St. Pancras – York
2tphH St. Pancras – Manchester
2tphH St. Pancras – Wolverhampton – Liverpool / Chester
2tphH St. Pancras – Worcester
4tphR St. Pancras – Nottingham
2tphR St. Pancras – York via Melton Mowbray
= 14tph
3. West Hampstead Junction – Watford Gap Junction
2tphH Brighton – York
2tphH Brighton – Preston
2tphH Chichester – Derby via Melton Mowbray
2tphH St. Pancras – York
2tphH St. Pancras – Manchester
2tphH St. Pancras – Wolverhampton – Liverpool / Chester
2tphH St. Pancras – Worcester
= 14tph
4. Watford Gap Junction – Onley Junction (HS2-CV)
2tphH St. Pancras – Wolverhampton – Liverpool / Chester
2tphH St. Pancras – Worcester
= 4tph
5. Watford Gap Junction – Cotesbach Junction
2tphH Brighton – York
2tphH Brighton – Preston
2tphH Chichester – Derby via Melton Mowbray
2tphH St. Pancras – York
2tphH St. Pancras – Manchester
= 10tph
6. Rugby HS Junction (HS2-CV) – Cotesbach Junction
2tphH Paddington – Derby via Melton Mowbray
2tphH Bournemouth – Newcastle / Middlesborough
= 4tph
7. Cotesbach Junction – Regent St. Junction
2tphH Brighton – York
2tphH Brighton – Preston

2tphH Chichester – Derby via Melton Mowbvrav
2tphH St. Pancras – York (serves Loughborough)
2tphH St. Pancras – Manchester (serves East Midlands Parkway)
2tphH Paddington – Derby via Melton Mowbray
2tphH Bournemouth – Newcastle / Middlesborough
= 14tph

8. Regent St. Junction – Swain St. Junction

2tphH Brighton – York
2tphH Brighton – Preston
2tphH Chichester – Derby via Melton Mowbvrav
2tphH St. Pancras – York (serves Loughborough)
2tphH St. Pancras – Manchester (serves East Midlands Parkway)
2tphH Paddington – Derby via Melton Mowbray
2tphH Bournemouth – Newcatle / Middlesborough
=14tph

9. Swain St. Junction – Stanford Junction

2tphH Brighton – York
2tphH Brighton – Preston
2tphH Bournemouth – Newcastle / Middlesborough
= 6tph

10. Stanford Junction – Edwalton Junction

2tphH Portsmouth & Southsea – Derby (from main line)
2tphH Brighton – York
2tphH Brighton – Preston
2tphH Bournemouth – Newcastle / Middlesborough
= 8tph

11. Asfordby Junction (HS8) – Edwalton Junction

2tphH HS7 Norwich – Swansea
2tphH HS8 Norwich – Preston
2tphH Chichester – Derby via Melton Mowbvrav
2tphH Paddington – Derby via Melton Mowbray
2tphR St. Pancras – York via Melton Mowbray
= 10tph

12. Edwalton Junction – Manvers St. Junction

2tphH Portsmouth & Southsea – Derby
2tphH HS7 Norwich – Swansea
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS8 Norwich – Preston
2tphH Bournemouth – Newcastle / Middlesborough
2tphH Chichester – Derby via Melton Mowbvrav
2tphH Paddington – Derby via Melton Mowbray

2tphR St. Pancras – York via Melton Mowbray (to classic line)
= 18tph

13. Manvers St. Junction – Nottingham HS

2tphH Portsmouth & Southsea – Derby
2tphH HS7 Norwich – Swansea
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS8 Norwich – Preston
2tphH Bournemouth – Newcastle / Middlesborough
2tphH Chichester – Derby via Melton Mowbray
2tphH Paddington – Derby via Melton Mowbray
2tphH HS7 Cleethorpes – Birmingham HS
2tphH HS7 Skegness – Birmingham HS
= 20tph

14. Manvers St. Junction – Nottingham (classic station; NB only services coming **from** HS3)

2tphR St. Pancras – York via Melton Mowbray
= 2tph

15. Nottingham HS – Strelley Junction

2tphH Portsmouth & Southsea – Derby
2tphH HS7 Norwich – Swansea
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS8 Norwich – Preston
2tphH Bournemouth – Newcastle / Middlesborough
2tphH Chichester – Derby via Melton Mowbray
2tphH Paddington – Derby via Melton Mowbray
2tphH HS7 Cleethorpes – Birmingham HS
2tphH HS7 Skegness – Birmingham HS
= 20tph

16. Strelley Junction – Awsworth Junction

2tphH Portsmouth & Southsea – Derby
2tphH HS7 Norwich – Swansea
2tphH HS7 Cleethorpes – Birmingham HS
2tphH HS7 Skegness – Birmingham HS
2tphH Chichester – Derby via Melton Mowbray
2tphH Paddington – Derby via Melton Mowbray
= 12tph

17. Strelley Junction – Nuthall South Junction

2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS8 Norwich – Preston

2tphH Bournemouth – Newcastle / Middlesborough (to main line)
= 8tph

18. Nuthall South Junction – Nuthall North Junction

2tphH Brighton – York

2tphH Brighton – Preston

2tphH HS8 Norwich – Preston

2tphH Portsmouth & Southsea – Sheffield Midland – South Yorkshire LL / Barnsley
(from main line)

= 8tph

19. Awsworth Junction – Nuthall North Junction

2tphH HS7 Plymouth – Newcastle / Middlesborough

2tphH HS7 Birmingham HS – Leeds HS – York HS

2tphH HS7 Birmingham HS – Halifax / Skipton

= 6tph

20. Nuthall North Junction – Huthwaite Junction

2tphH Brighton – York

2tphH Brighton – Preston

2tphH Portsmouth & Southsea – Sheffield Midland – South Yorkshire LL / Barnsley

2tphH HS7 Plymouth – Newcastle / Middlesborough

2tphH HS7 Birmingham HS – Leeds HS – York HS

2tphH HS7 Birmingham HS – Halifax / Skipton

2tphH HS8 Norwich – Preston

= 14tph

21. Huthwaite Junction – Stonebroom Junction

2tphH Portsmouth & Southsea – Sheffield Midland – South Yorkshire LL / Barnsley

2tphH HS7 Birmingham HS – Halifax / Skipton

= 4tph

22. Stonebroom Junction – Old Denaby Junction (classic section)

2tphH Portsmouth & Southsea – Sheffield Midland – South Yorkshire LL (/ Barnsley)

2tphH HS7 Birmingham HS – Halifax / Skipton

= 4tph

23. Old Denaby Junction – South Yorkshire LL (classic section)

2tphH Portsmouth & Southsea – Sheffield Midland – South Yorkshire LL

= 2tph

24. Old Denaby Junction – Denaby Main Junction

2tphH HS7 Birmingham HS – Halifax / Skipton

= 2tph

25. Huthwaite Junction – Wales Junction

2tphH Brighton – York

2tphH Brighton – Preston

2tphH HS7 Plymouth – Newcastle / Middlesborough

2tphH HS7 Birmingham HS – Leeds HS – York HS
2tphH HS8 Norwich – Preston
= 10tph

26. Wales Junction – Waleswood Junction

2tphH Tunbridge Wells – Liverpool (from main line)
2tphH Tunbridge Wells – Preston (from main line)
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS7 Plymouth – Newcastle / Middlesborough
2tphH HS7 Birmingham HS – Leeds HS – York HS
2tphH HS8 Norwich – Preston
= 14tph

27. Waleswood Junction – Woodburn HS Junction (classic section of HS8)

2tphH Tunbridge Wells – Liverpool
2tphH Tunbridge Wells – Preston
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS7 Plymouth – Newcastle / Middlesborough
2tphH HS7 Birmingham HS – Leeds HS – York HS
2tphH HS8 Norwich – Preston
2tphH HS8 Hull – Liverpool
2tphH HS8 Cleethorpes – Preston
2tphH HS8 Skegness – Liverpool
= 20tph

28. Woodburn HS Junction – Sheffield HS – Ladybower Junction

2tphH Tunbridge Wells – Liverpool
2tphH Tunbridge Wells – Preston
2tphH Brighton – York
2tphH Brighton – Preston
2tphH HS7 Plymouth – Newcastle / Middlesborough
2tphH HS7 Birmingham HS – Leeds HS – York HS
2tphH HS8 Norwich – Preston
2tphH HS8 Hull – Liverpool
2tphH HS8 Cleethorpes – Preston
2tphH HS8 Skegness – Liverpool
= 20tph

29. Ladybower Junction – Guide Bridge HS Junction

2tphH Tunbridge Wells – Liverpool
2tphH Tunbridge Wells – Preston
2tphH Brighton – Preston
2tphH HS8 Norwich – Preston
2tphH HS8 Hull – Liverpool
2tphH HS8 Cleethorpes – Preston

2tphH HS8 Skegness – Liverpool
= 14tph

30. Ladybower Junction – Paddock Junction

2tphH Brighton – York
2tphH HS7 Plymouth – Newcastle / Middlesborough
2tphH HS7 Birmingham HS – Leeds HS – York HS
= 6tph

31. Paddock Junction – Huddersfield – Gelderd Rd. North Junction

2tphH Brighton – York
2tphH HS7 Plymouth – Newcastle / Middlesborough
2tphH HS7 Birmingham HS – Leeds HS – York HS
2tphH HS9 Liverpool – Newcastle / Middlesborough
2tphH HS9 Liverpool – Newcastle via Hartlepool
2tphH HS9 Preston – Hull
2tphH HS9 Preston – Scarborough
= 14tph

32. Gelderd Rd. North Junction – Garforth West Junction

2tphH Tunbridge Wells – Leeds HS – York HS (from classic section of main line)
2tphH Brighton – York
2tphH HS7 Birmingham HS – Leeds HS – York HS
2tphH HS7 Plymouth – Newcastle / Middlesborough
2tphH HS9 Liverpool – Newcastle / Middlesborough
2tphH HS9 Liverpool – Newcastle via Hartlepool
2tphH HS9 Preston – Hull
2tphH HS9 Preston – Scarborough
= 16tph

33. Garforth West Junction – Garforth East Junction

2tphH Tunbridge Wells – Leeds HS – York HS
2tphH Brighton – York
2tphH HS7 Birmingham HS – Leeds HS – York HS
2tphH HS7 Plymouth – Newcastle / Middlesborough
2tphH HS9 Liverpool – Newcastle / Middlesborough
= 10tph

34. Garforth West Junction – Micklefield Junction

2tphH HS9 Liverpool – Newcastle via Hartlepool
2tphH HS9 Preston – Hull
2tphH HS9 Preston – Scarborough
= 6tph