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Rt Hon Andy Burnham, Mayor of Greater Manchester
Mr Oliver Coppard, Mayor of South Yorkshire
Cllr Stephen Place, Leader, Bradford MDC
Lord Ben Houchen, Mayor of the Tees Valley
Ms Kim McGuinness, Mayor of the North-East
Mr Steve Rotheram, Metro Mayor of Liverpool City Region
Mr David Skaith, Mayor of York and North Yorkshire
Mr Luke Campbell, Mayor of Hull and East Yorkshire
Dame Andrea Jenkyns, Mayor of Greater Lincolnshire
Cllr Hans Mundry, Leader, Warrington Borough Council

ref L32

High Speed UK
Connecting the Nation
www.highspeeduk.co.uk

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16th June 2026
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Dear Northern Leaders,

The Government's launch (in January 2026) of its *Northern Growth Strategy* has received broad acclaim across the North, from political leaders such as yourselves; and certainly, the prospect of a new Northern Powerhouse Rail line linking the principal cities of the North, with the promise of £1.1 billion of initial development funding, should be welcomed by all.

However, as professional railway engineers, we must warn you that the new railway initiatives set out in the *Northern Growth Strategy* are essentially the same grossly inadequate proposals that were put forward in Transport for the North's *Strategic Transport Plan* (STP), published in March 2024. They exhibit the same disastrous underperformance that would have prevented TfN's proposed transport interventions – in particular its flagship Northern Powerhouse Rail (NPR) project – from ever delivering either the ultimate goal of a Levelled-up, Net Zero North, or the STP's promise of £118 billion annual GVA gains. Equally concerning, we can see no evidence that the crucial transpennine section of Northern Powerhouse Rail even exists as a detailed, substantive scheme.

Our detailed analysis, as set out in **Appendix A**, demonstrates that Northern Powerhouse Rail as currently projected will comprehensively fail on every key aspect of its technical performance:

- **Scale/Capacity**
NPR will at best offer 2 new transpennine tracks on a single route – totally inadequate to provide the new capacity necessary for the Levelling-up challenge. Refer **Appendix A1**.
- **Journey Time Reductions**
NPR will fail almost every requirement of the journey time specification, originally established by Transport for the North (TfN) in 2016. Refer **Appendix A2**.
- **Detail/Completeness**
TfN have yet to publish either provisional NPR schemes for Manchester and Leeds, or any indicative alignments for NPR's transpennine route. Refer **Appendix A3**.
- **Intercity Connectivity**
NPR will fail to provide comprehensive direct links between Northern cities, with many journeys (e.g. Sheffield to Bradford) still requiring a change of trains. Refer **Appendix A4**.
- **Local Integration**
TfN have failed to put forward any scheme in any city, to demonstrate how NPR intercity services can be integrated with transformed local services. Refer **Appendix A5**.
- **Predication upon HS2**
Most of NPR's failings as an east-west railway can be directly attributed to its predication upon HS2, designed with no thought for east-west connectivity. Refer **Appendix A6**.

These deficiencies are so profound that there is no possibility of their being remedied during the process of design development. Taken collectively, they render impossible any prospect of Northern Powerhouse Rail delivering the step-change gains in network connectivity and capacity necessary to drive either Levelling-up or Net Zero. They also completely discredit both Transport for the North's stated aspiration¹ of "transforming connectivity...(and)...transforming the North's economy", and their claim² that Northern Powerhouse Rail will generate £118 billion gains in annual GVA – equivalent to full Levelling-up of the North's economy to match that of the wider UK. This latter promise has been crucial in mobilising political support for the Northern Powerhouse Rail project.

We note that the Government's *Northern Growth Strategy* promotes similar transformational ambitions³, with schemes that are (as previously noted) plainly based upon TfN's work in developing their 2024 *Strategic Transport Plan*. Accordingly, we have undertaken a detailed review of the *Strategic Transport Plan* and its supporting *Northern Powerhouse Independent Economic Review*, to determine the provenance of the £118 billion claim, and to test its fundamental validity. Our conclusions, set out in greater detail in **Appendix C**, are simple, and stark:

- We can find no evidence that a serious independent connectivity study of definitive Northern Powerhouse Rail proposals has ever taken place.
- We can see no evidence that definitive Northern Powerhouse Rail proposals even exist.
- Transport for the North's £118 billion claim relates only to the ideal of an optimally-connected Northern Powerhouse, not to actual detailed proposals.
- As a justification for emerging Northern Powerhouse Rail proposals, it is essentially worthless.

It would appear that Transport for the North have somehow confused the actuality of their own inadequate and underdeveloped NPR scheme, with the ideal of an optimally connected Northern Powerhouse, that they were originally remitted to deliver. But whatever the case, it must be a matter of huge public concern, that Transport for the North have continued to promote Northern Powerhouse Rail with the false promise of transformational (£118 billion) economic growth.

As we observed in our letter⁴ dated 20/05/24, in terms of lost opportunity, TfN's failure could cost every citizen of the North £6,000 per year, every year into the foreseeable future. We believe that this huge 'opportunity cost' could be avoided by adopting a scheme such as Network North⁵, which:

- a) actually exists as substantive proposals, both for new routes between principal Northern cities, and for intercity/local integration schemes in all these cities;
- b) has been developed and optimised to rigorous railway engineering criteria (in accordance with the 'Key Technical Specification' and the technical comparisons set out in **Appendix A**);
- c) can be shown to deliver the required transformation in connectivity and capacity;
- d) has been developed completely independent of the inefficiencies of HS2.

¹ p27, Col1, Para2, Line11, *Strategic Transport Plan* TfN 2024 includes the following statement: "Transforming connectivity is fundamental to transforming the North's economy..."

<https://www.transportforthenorth.com/our-north/strategic-transport-plan/>

² p28, Col2, Para1, Line8, *Strategic Transport Plan* TfN 2024.

³ It is currently unclear how TfN's claim, of £118 billion annual GVA gains, precisely aligns with the Government's claim (p6, Para3, *Northern Growth Strategy*, HMG 2026) of £40 billion annual GVA gains. However, either figure represents transformational outcomes which demand similarly transformational interventions.

⁴ HSUK letter dated 20/05/24 (ref **L11**, to WY, GM, SY, TV, NE, LCR, Y&NY Mayors & Bradford MDC Leader) was followed by subsequent letters (ref **L12**, **L14** and **L18**) dated 18/06/24, 05/09/24 and 20/11/24. In addition to the concerns expressed as to NPR's connectivity and economic performance, these letters also introduced our alternative High Speed UK / Network North scheme, a fully engineered and integrated programme of new build, upgraded and restored railway works which could – unlike the official NPR proposals – fully deliver on the STP's promises.

⁵ For further details of Network North and High Speed UK, please refer to www.highspeeduk.co.uk.

In respect of this last point, we would refer you to our letter⁶ dated 15/11/24, warning of the hugely suboptimal performance of the proposed 'Liverpool-Manchester Railway' – an east-west railway whose routeing is fundamentally determined by the north-south HS2, designed of course with no thought for east-west connectivity.

But we do not ask you to take our word for all this. Instead, we invite you to review the attachments to this letter, and the supplementary information on our website (www.highspeeduk.co.uk). We would then ask you to meet with us to determine for yourself the true validity of our assertions, and the worth of our alternative Network North initiative. It is of course for Transport for the North to put up a convincing counter-narrative, and we hope that you will join us in calling for this.

To aid this process of 'discovery', we will be presenting⁷ a series of formal Freedom of Information requests to Transport for the North. The purpose of these FoI requests – as set out in **Appendix D** – is to compel TfN to:

- a) reveal the basis of the claim of £118 billion additional GVA benefits and Levelling-up of the North's economy, that has been made in the 2024 *Strategic Transport Plan*, and supported in the *Northern Powerhouse Independent Economic Review* (NPIER).
- b) demonstrate that Northern Powerhouse Rail actually exists as a detailed, substantive scheme, developed to rigorous railway engineering criteria.
- c) explain how the NPR scheme conforms with the *Strategic Transport Plan's* vision statement: "Transforming connectivity is fundamental to transforming the North's economy".
- d) explain how NPR represents the best option to achieve this transformation.

We trust you would agree, that these are issues that must be properly addressed, if the people of the North are to get the transformed and optimally-performing railway network, that they need and deserve; we also trust you would agree, that second-best is not an option. Accordingly, we hope you will support us in seeking proper answers to our FoI questions, in the interests of democracy, transparency, and a prosperous and well-connected North.

Please note that we have written separately⁸ to the regional leaders who are stakeholders in the Midlands-NorthWest Rail Link (also promoted under the Government's *Northern Growth Strategy*), and we will shortly be writing to the Prime Minister.

We look forward to the opportunity of presenting our proposals to you, and we will contact you shortly to arrange a meeting.

Yours sincerely,

Colin Elliff BSc CEng MICE,
Civil Engineering Principal, High Speed UK

⁶ HSUK letter reference **L17** (available on <http://highspeeduk.co.uk/letters.html>) to board members of Liverpool-Manchester Railway Board. For further information regarding the co-dependency between Northern Powerhouse Rail and HS2/Midlands-NorthWest Rail Link projects, see **Appendix A6**.

⁷ Letter reference **L31** to Transport for the North, available on <http://highspeeduk.co.uk/letters.html>.

⁸ Letter reference **L33**, available on <http://highspeeduk.co.uk/letters.html>.

APPENDIX A

KEY TECHNICAL SPECIFICATION FOR NORTHERN POWERHOUSE RAIL AND ASSESSMENT OF COMPETING PROPOSALS

Development of Key Technical Specification

In the apparent absence of either any definitive technical specification for Northern Powerhouse Rail, or any substantiated confirmation that it has the scope, scale and performance necessary to deliver its promised economic and environmental benefits, a 'Key Technical Specification' should be established to address the following core issues and thus determine fitness for purpose:

1) **Transpennine Capacity**

Are the proposed interventions of the scale necessary to tackle the capacity issues that are currently holding back growth in the North, most particularly the huge congestion / suppressed demand in transpennine road traffic? (Refer **Appendix A1**)

2) **Journey Time Reductions**

Do the proposed interventions deliver the step-change journey time reductions between primary cities, as set out in Transport for the North's 2016 journey time specification? (Refer **Appendix A2**)

3) **Detail/Completeness**

Do the proposed interventions exist as detailed and comprehensive route alignments, with definitive proposals developed to demonstrate how enhanced intercity services will integrate with transformed local services at all key network hubs? (Refer **Appendix A3**)

4) **Intercity Connectivity**

Do the proposed interventions have the necessary geographic scope, enabling step-change improvement in links between the major cities of the North, with the ideal of comprehensive direct interconnectivity between all cities by frequent (i.e. hourly or better) high-quality services? (Refer **Appendix A4**)

5) **Local Integration**

Do the proposed interventions enable step-change improvements in local services at all major hubs, fully integrated with high speed intercity services? (Refer **Appendix A5**)

6) **Process/Predication upon HS2**

Is there a recognisable 'scientific' process by which the proposed interventions have been designed and optimised to form an overall Northern network, and to what performance criteria has the design been developed? Or has the process, essentially to improve east-west/transpennine connectivity across the Northern Powerhouse, been dominated by a requirement to conform with a predetermined scheme such as HS2 – which was developed with no thought for transpennine connectivity? (Refer **Appendix A6**)

The findings of HSUK's assessment, comparing Northern Powerhouse Rail with HSUK/Network North⁹, are summarised on the following page, and set out in greater detail in the subsequent **Appendices A1–A6**.

⁹ Further information regarding High Speed UK and Network North can be found on www.highspeeduk.co.uk.

Assessment of Competing Proposals

Performance Criterion	Northern Powerhouse Rail Performance	HSUK/Network North Performance	Winner
1 Transpennine Capacity (refer Appendix A1)	At best, NPR only offers 2 new transpennine tracks, and thus it fails to address existing transpennine congestion issues	Network North will offer 6 new transpennine tracks, 4 for passengers and 2 for freight traffic	Network North
2 Journey Time Reductions (refer Appendix A2)	On most principal intercity routes, NPR fails to deliver the reduced journey times demanded in TfN's own 2016 specification	Network North delivers all of the reduced intercity journey times demanded in TfN's 2016 specification	Network North
3 Detail/Completeness (refer Appendix A3)	No detail of NPR's transpennine routes, or of its integrated hub schemes (at Leeds, Manchester etc), or of its service proposals has ever emerged – either via official publication or unofficial leak. As such, NPR cannot be regarded as a complete proposal	Network North is a well-documented scheme, with routes designed to 1:10,000 scale, integrated hubs designed for all major cities and definitive train service proposals developed	Network North
4 Comprehensive Intercity Connectivity (refer Appendix A4)	The proposed NPR interventions fail to address all principal intercity flows, most particularly Sheffield & Bradford. Considered in combination with the existing network, its score is 54 direct links out of 66 possible, or 83%	Network North will deliver transformed regional and national intercity services. Overall, NN will offer 66 direct links out of 66 – a score of 100%, reaching the ideal of total intercity interconnectivity	Network North
5 Local Integration (refer Appendix A5)	TfN has never published schemes to route NPR through major hubs (at Leeds, Manchester, Sheffield, Liverpool etc) and deliver the extra capacity necessary for transformed local services	Network North's fully integrated schemes will deliver the increased capacity necessary for high speed services through the heart of all major cities, with frequency of local services approx. doubled	Network North
6 Process/Predication upon HS2 (refer Appendix A6)	NPR's performance as a network linking Northern cities is fatally compromised by its predication upon HS2 – which was designed with no thought for Northern connectivity	HSUK/Network North has been developed from the outset with comprehensive intercity connectivity as a priority. Its optimised network performance is consistently documented in HSUK publications	Network North

Table 1 : Comparison of Northern Powerhouse Rail and Network North Performance

On the basis of the comparisons set out above, it is plain that the Northern Powerhouse Rail scheme set out in TfN's *Strategic Transport Plan* cannot be the optimised scheme that it is claimed to be, and moreover it stands no chance whatsoever of delivering the claimed £118 billion annual GVA benefits. Instead, it is hugely outperformed by the alternative HSUK/Network North scheme which (unlike NPR) succeeds in resolving the critical network issues at Manchester, Manchester Airport and Leeds (and indeed at all hubs of the rail network in the Northern Powerhouse).

APPENDIX A1

Scale of Transpennine Capacity Improvement necessary to enable Levelling-up

Refer Appendix B, Figures B03 – B07

This assessment addresses the capability of the official Northern Powerhouse Rail proposals to deliver the transformational improvements in transpennine capacity, that are necessary to enable Levelling-up of the Northern economy, with the predicted £118 billion gains in annual GVA.

First, however, it is necessary to establish the true scale of the challenge, the extra capacity in the transport system required to eliminate (or at least reduce to ambient levels) the acute congestion on transpennine routes that currently acts as a primary constraint on economic development.

This constraint can be best appreciated from road traffic data (representing more than 90% of total journeys) between the principal conurbations of Yorkshire and the North-West i.e. West Yorkshire, South Yorkshire, Greater Manchester and Merseyside, as depicted below in Figure A1.1. This shows the greatest flows between the conurbations on either side of the Pennines, at around 150,000 AADT. Considered on a conventional 'gravitational' model – by which flows are directly proportional to the populations connected, and inversely proportional to the intervening distance – flows between South Yorkshire and Greater Manchester should be at a similar level, and flows between West Yorkshire and Greater Manchester (the 2 largest conurbations) should be around 50% greater. Yet actual transpennine flows are massively below these idealised levels.

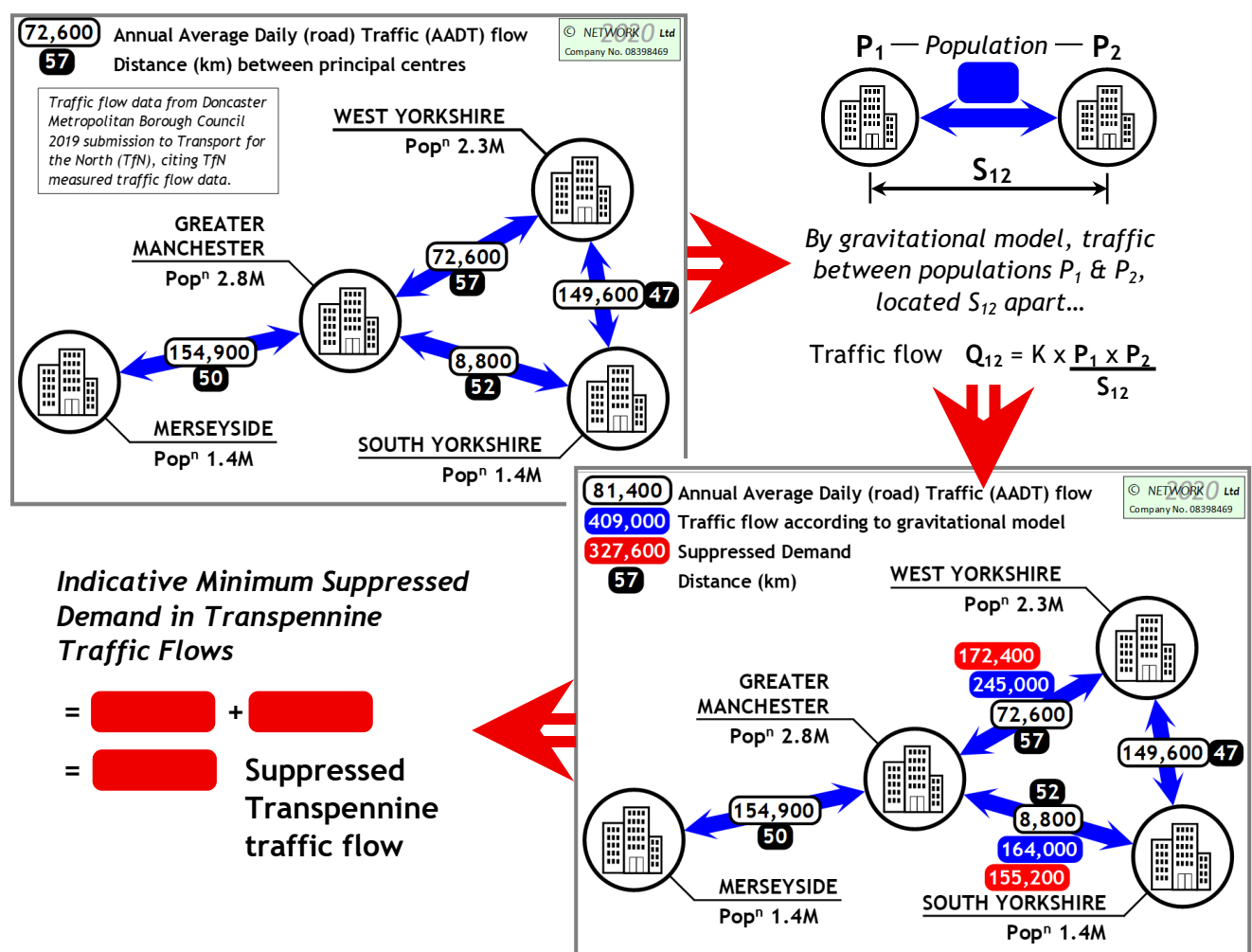


Figure A1.1 : Assessment of Suppressed Demand in Transpennine Traffic Flows

The difference between idealised and actual flows – as charted in red in Figure A1.1 – can simplistically be taken to represent the unresolved suppressed demand for transpennine connectivity, that acts as a massive brake on the Northern economy. It is reflected in the general dearth of high-quality roads crossing the Pennines – just one motorway (the M62) linking West Yorkshire and Greater Manchester, and a single-carriageway trunk road (the hugely inadequate A628T 'Woodhead Road') linking South Yorkshire and Greater Manchester.

It is utterly unarguable, that transpennine transport capacity must be massively increased, if Levelling-up ambitions (and of course the predicted £118 billion GVA gains) are ever to be realised. But the scale of the solution is daunting; if the existing West Yorkshire–Greater Manchester flow (72,600 AADT) represents the capacity of a single 3-lane motorway, then at least 2 new transpennine M62s would be required to address the suppressed demand. And on a similar basis, 2 entirely new trans-Peak motorways would be required to connect South Yorkshire and Greater Manchester.

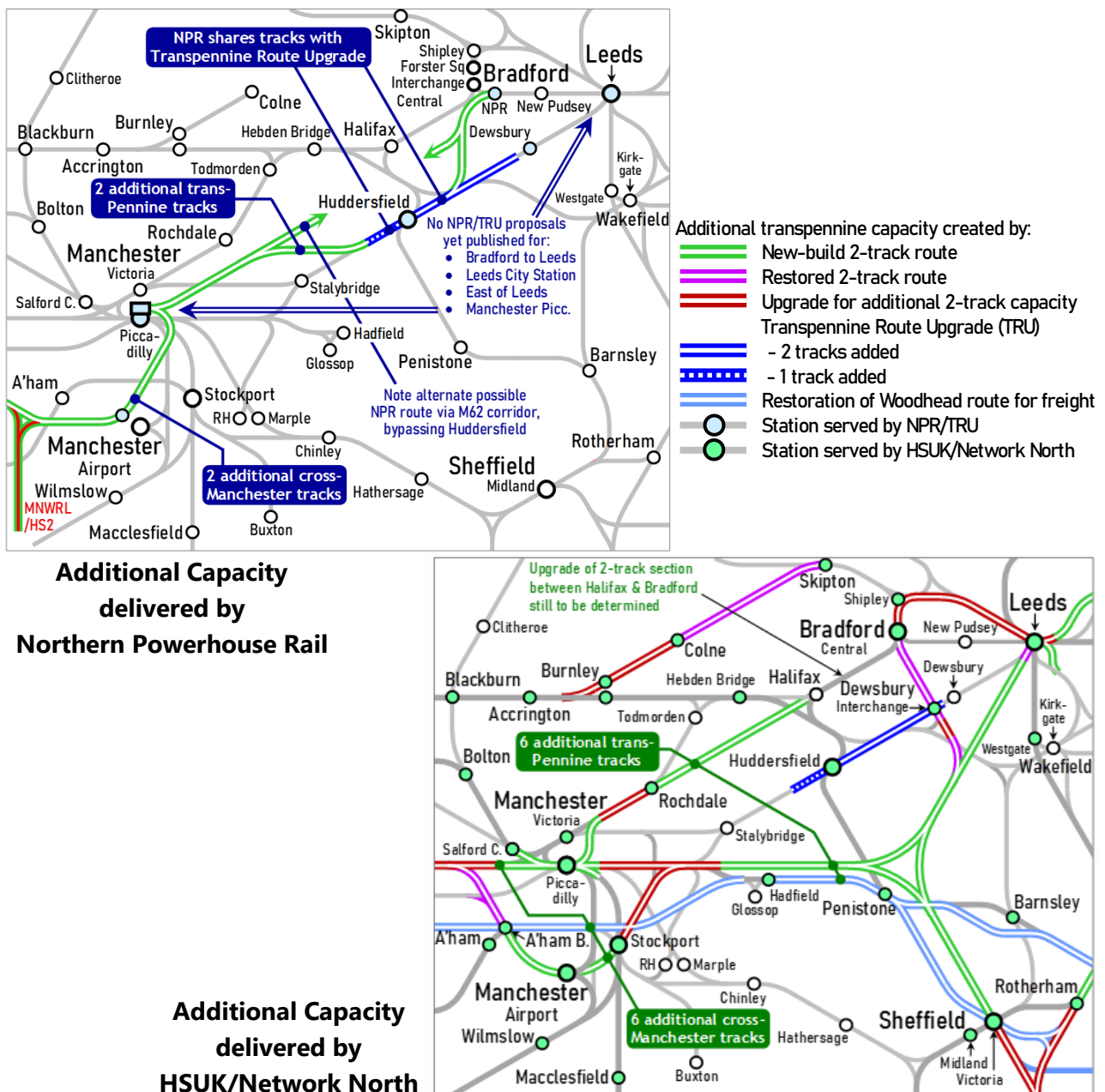


Figure A1.2 : Additional Transpennine Capacity provided by Candidate Schemes

With this scale of new motorway construction utterly impracticable and unacceptable, new railway construction is plainly imperative; and it is equally plain that the 2 new tracks proposed for Northern Powerhouse Rail – as depicted in Figure **A1.2** – will be insufficient to meet the challenge, for a multiplicity of reasons:

- **Scale:** NPR's 2 new transpennine railway tracks cannot possibly handle traffic flows equivalent to 4 new motorways.
- **Independence from TRU Project:** NPR's 2 new tracks do not extend for the full distance between Manchester and Leeds; in its central Marsden to Huddersfield section, it will share tracks with the Transpennine Route Upgrade (TRU) project. TRU adds 2 tracks to the east of Huddersfield, but only a single track between Marsden and Huddersfield; this will be completely overwhelmed by the additional capacity that Northern Powerhouse Rail will bring.
- **Completeness:** It must be stressed that with no proposals yet advanced for how the railway hubs at Leeds and Manchester will be developed to accommodate huge increases in transpennine flows, NPR does not yet represent a complete solution even on its limited Manchester–Leeds axis.
- **Orientation:** NPR's new line, linking Leeds/Bradford/Manchester, will only improve capacity between West Yorkshire and Greater Manchester, and will fail to address South Yorkshire flows (for which only an upgrade of the existing Hope Valley line is proposed).
- **Freight Capability:** NPR's new lines are exclusively for passenger use.

By contrast, the Network North offer of 6 new tracks will address all the above issues:

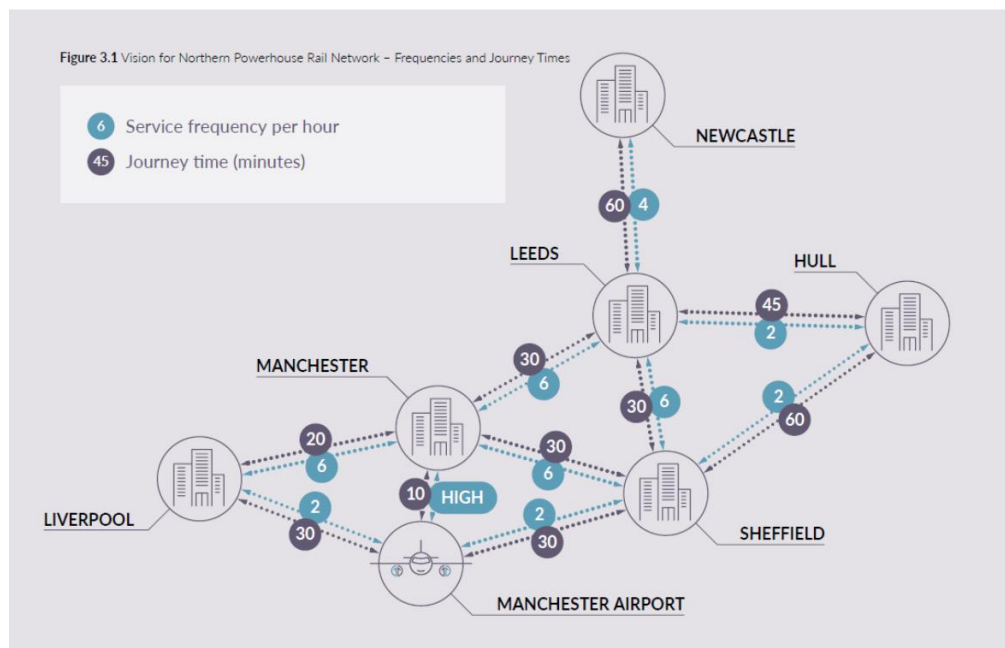
- **Scale:** Network North's 6 new transpennine railway tracks will provide massively greater capacity.
- **Independence from TRU Project:** NN's 6 new tracks will be additional to, and independent of the new tracks that the ongoing TRU project will deliver from Marsden through Huddersfield to Dewsbury.
- **Completeness:** In addition to new transpennine lines, the NN proposition offers radical solutions to transform all major rail hubs in the North (including Leeds and Manchester).
- **Orientation:** NN's primary new line, routed via the abandoned Woodhead corridor, will link both West and South Yorkshire to Greater Manchester and Merseyside. A supplementary new line will be routed via Bradford to augment capacity between West Yorkshire and Greater Manchester.
- **Freight Capability:** The NN proposition also includes restoration of the original Woodhead line as part of a coast-to coast freight route.

APPENDIX A2

Achievement of Journey Time Reductions as specified by Transport for the North

Refer Appendix B, Figures B01 – B04 and B07

This assessment addresses Northern Powerhouse Rail's performance in achieving the major reductions in journey time, originally specified by Northern leaders¹⁰ as long ago as 2014. This specification was adopted (and amplified) by Transport for the North in 2016 (see Figure A2.1 below), and it called for step-change reductions in journey times across the Northern Powerhouse (for instance, to a 30-minute standard between Leeds, Sheffield and Manchester, and to 20 minutes on the Liverpool-Manchester route) that were broadly consistent with what HS2 was designed to achieve on north-south routes.



Extract from *The Northern Transport Strategy: Spring 2016 Report*, Transport for the North, March 2016

Figure A2.1 : TfN Journey Time/Service Frequency Targets between Northern Cities

These reduced journey times would undoubtedly deliver major economic benefit on their own merits. However, from a railway operating/engineering perspective, their greatest significance was that they could not be achieved by upgrading of existing routes; they were only achievable along the (largely) new-build routes that were also essential to deliver the necessary step-change enhancement in capacity.

Given that Transport for the North had taken ownership of the journey time specification in 2016, it would seem reasonable to assume that their emerging proposals would be compliant with its demands. But instead there has been concerning regression, with the journey time specification omitted from all subsequent iterations of TfN's *Strategic Transport Plan*, and TfN's proposals progressively degrading to the point where they now fail to meet almost every requirement of the 2016 specification.

¹⁰ The 'One North' specification for journey times between key Northern Powerhouse destinations was published in 2014 by the 'One North' consortium comprising Leeds, Manchester, Liverpool, Sheffield and Newcastle city councils, is summarised in Figure B01. This specification was broadly adopted by Transport for the North in 2016.

The near-total non-compliance of TfN's Northern Powerhouse Rail proposals against TfN's own specification is set out in Table A2.2 below.

	Journey between Northern Powerhouse centres	Existing journey time (mins)	Specified journey time (mins)	NPR journey time (mins)	NN journey time (mins)
1	Liverpool - Manchester	32	20	35	20
2	Manchester - Sheffield	48	30	42	23
3	Manchester - Leeds	49	30	33	26
4	Sheffield - Leeds	40	30	40	20
5	Manchester - MAN Airport ¹	13	10	15	15
6	Leeds - MAN Airport ²	62	40	51	38
7	Sheffield - MAN Airport	73	30	66	34
8	Liverpool - MAN Airport	65	30	41	26
9	Leeds - Newcastle	87	60	73	51
10	Leeds - Hull	55	45	45	38
11	Sheffield – Hull	86	60	67	59
	Overall Score			1/11	9/11

Journey time meeting specification

Journey time failing to meet specification

Notes:

1. Timings to MAN Airport (Manchester Airport) assessed to existing centrally-located station.
2. Leeds-MAN Airport specified journey time derived by adding specified journey times 3 & 5 via central Manchester.

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Table A2.2 : NPR & Network North Performance against Journey Time Specification

By contrast, the Network North scheme, designed to holistic principles as an integrated network, meets every requirement of the TfN specification for intercity journey times. Its only non-compliances lie with journeys to Manchester Airport:

- **Journey 5 : Manchester to Manchester Airport:** a significant non-compliance (15 minutes vs 10 minutes) – but in terms of centre-to-centre timings (rather than timings to peripheral 'high speed' stations) this appears a) impossible to achieve at reasonable cost, and b) of questionable relevance to a specification for a strategic region-wide network.
- **Journey 7 : Sheffield to Manchester Airport:** a marginal non-compliance (34 minutes vs 30 minutes).

Both these non-compliances must be viewed in the context of the markedly poorer performance of the official NPR proposals. These do absolutely nothing to improve links to Manchester Airport, either from central Manchester or from Sheffield.

APPENDIX A3

Detail and Completeness of Competing Proposals

Refer Appendix B, Figures B03 – B07, B08 – B17

In any assessment of competing proposals, it is necessary to consider the most fundamental issue of all i.e. credibility. Does the proposal in question actually exist as a definitive and viable scheme – or is it merely a sketched ‘felt-tip line on a map’, with no supporting detail or overall completeness?

This is a reasonable question to ask of at least the transpennine (i.e. Manchester-Bradford-Leeds) section of Northern Powerhouse Rail, for the following reasons:

- In the 12-year period that Transport for the North has been developing NPR, no details of the route have ever emerged, either via official publication or unofficial leak. Furthermore, no approaches to the various local authorities appear ever to have been made¹¹, to consult on emerging proposals.
- As noted in Transport for the North’s own Strategic Transport Plan¹², coordinated and coherent plans for Leeds and Manchester have not yet been developed to demonstrate how the new NPR route will:
 - a) pass through these cities to further destination points (e.g. Hull and Liverpool);
 - b) achieve full integration with the existing network; and
 - c) deliver a step-change in capacity for local services.
- With neither indicative routes nor defined hub schemes, it is impossible to preserve and protect critical new (and also, restored and upgraded) railway alignments from encroaching urban development.
- As noted in **Appendix A2**, intercity journey times between principal communities have progressively regressed to the point where most fail to meet TfN’s own journey time specification.
- No proposals have ever emerged to demonstrate how NPR will deliver a coherent and integrated service proposition, extending across the Northern Powerhouse.

By contrast, Network North will offer all of the following:

- All proposed Network North routes (i.e. new-build, restored and upgraded) supported by detailed route design to 1:10,000 scale.
- Local integration strategies developed for all major cities/conurbations (including Leeds and Manchester) to demonstrate how new Network North intercity routes will:
 - a) pass through these cities to further destination points;
 - b) achieve full integration with the existing network; and
 - c) deliver hugely increased capacity for local services.
- Defined routings and hub schemes, enabling the necessary land to be protected from encroaching urban development.
- All intercity journey times between principal communities compliant with TfN’s own journey time specification.
- Comprehensive service proposition developed for intercity, regional and local services, extending across the Northern Powerhouse.

¹¹ Contacts with Labour and Conservative political leaders in the directly intervening Calderdale District indicate no approaches from Transport for the North to discuss impacts etc arising from the construction and operation of the new Northern Powerhouse Rail route linking Manchester and Bradford.

¹² p76, *Strategic Transport Plan*, Transport for the North, 2024.

Overall, Northern Powerhouse Rail scores poorly owing to its exclusive focus upon its single line of route, its lack of integration with the existing railway system, and its general neglect of wider considerations of 'network'.

It is particularly significant to note that NPR has been developed with no consideration of the self-evident need to create a direct rail link between Sheffield and Bradford (Yorkshire's second- and third-largest cities), avoiding the need to change at Leeds (Yorkshire's largest city, and its most congested rail hub). Without such a link, it is plainly impossible for NPR to offer the comprehensive connectivity gains across the Northern Powerhouse, that are necessary to achieve the predicted transformational (i.e. £118 billion GVA) economic gains.

By contrast, HSUK's fully integrated design will establish a hugely enhanced network, offering the following specific improvements:

- All city-pairs directly interconnected with high-quality intercity services;
- Step-change network-wide reduction in journey times;
- Direct intercity link achieved between Sheffield and Bradford;
- Manchester Airport directly linked to all major communities in its Northern hinterland.

This improved intercity network – as illustrated in Figure **B07** – greatly exceeds the connectivity offer of the official Northern Powerhouse Rail scheme. Overall, the network created by HSUK/Network North will come far closer to the ideal of complete intercity interconnectivity between the cities of the North, on which the prediction of multibillion pound economic benefits is founded.

APPENDIX A5

Step-Change Enhancement of Local Networks in all Major Conurbations

Refer Appendix B, Figures B08 – B17

This assessment considers the performance of Northern Powerhouse Rail in effecting meaningful improvements in the local rail networks of its stakeholder conurbations, with increased capacity enabling enhanced suburban and regional services. This 'local capacity dividend' was always a key promise made by proponents of the Government's UK high speed rail initiative, and it would be reasonable to expect Northern Powerhouse Rail to be designed with the integration and network capability necessary to honour this promise.

Yet there is no indication that this issue has been given any meaningful consideration in Transport for the North's development of Northern Powerhouse Rail. NPR exists largely in its own 'silo' as an intercity route connecting a select group of major cities, and more local initiatives such as West Yorkshire Mass Transit exist in their own separate silos, with minimal coordination. It is particularly significant to note the admission in TfN's own *Strategic Transport Plan*¹³, that coordinated and coherent plans for Leeds and Manchester have yet to be developed.

It is reasonable to assume that the same deficiency exists for all major cities across the North.

By contrast, HSUK/Network North's fully integrated design has enabled holistic development of the entire intercity network (both national and regional), with complementary local strategies developed for all major conurbations that vastly outperform anything that the official schemes in the Northern Powerhouse can possibly offer.

Table **A5.1** below contrasts Network North's comprehensive provision of complementary local rail integration strategies with the total dearth of any such strategy from Transport for the North.

Conurbation	NPR	Network North	Ref Figures	Winner
West Yorkshire	N	Y	B08, B09	NN
Greater Manchester	N	Y	B10, B11	NN
Liverpool/Merseyside	N	Y	B12, B13	NN
South Yorkshire	N	Y	B14, B15	NN
North-East	N	Y	B16, B17	NN

Notes

- Local rail integration strategy prepared and published
- Local rail integration strategy in preparation
- No local rail integration strategy published

Table A5.1 : Local Integration Strategies

¹³ p76, *Strategic Transport Plan*, Transport for the North, 2024.

APPENDIX A6

No Predetermination of Intercity Rail Links in the Northern Powerhouse

Refer Appendix B, Figures B03 – B07, B10 – B13

This assessment addresses the self-evident risk, that ill-considered decisions taken on strategic railway development in one part of the country may have major adverse effects in neighbouring regions. This failure of process is perfectly illustrated in the confused priorities that have applied in the development timeline for a 21st Century 'Liverpool-Manchester Railway':

- **2012** – HS2 Phase 2a/2b scheme launched along a broad N-S axis, with its 'Western Arm' entering the North-West via Crewe, joining the WCML at Golborne, near Wigan, and with a spur from High Legh to a central Manchester terminus at Piccadilly. This would follow a southern alignment via a 'Manchester Airport' station and a long tunnel under the southern Manchester suburbs. These routes are indicated brown in Figure A6.1.
- **2015** – Northern Powerhouse Rail (NPR) launched on a generally E-W axis, with a Liverpool-Manchester route (shown blue) projected also to follow the HS2 spur into Manchester. Onward NPR services to Yorkshire via the new-build Northern Powerhouse Rail route (shown red) would be forced to reverse at the Piccadilly terminus.

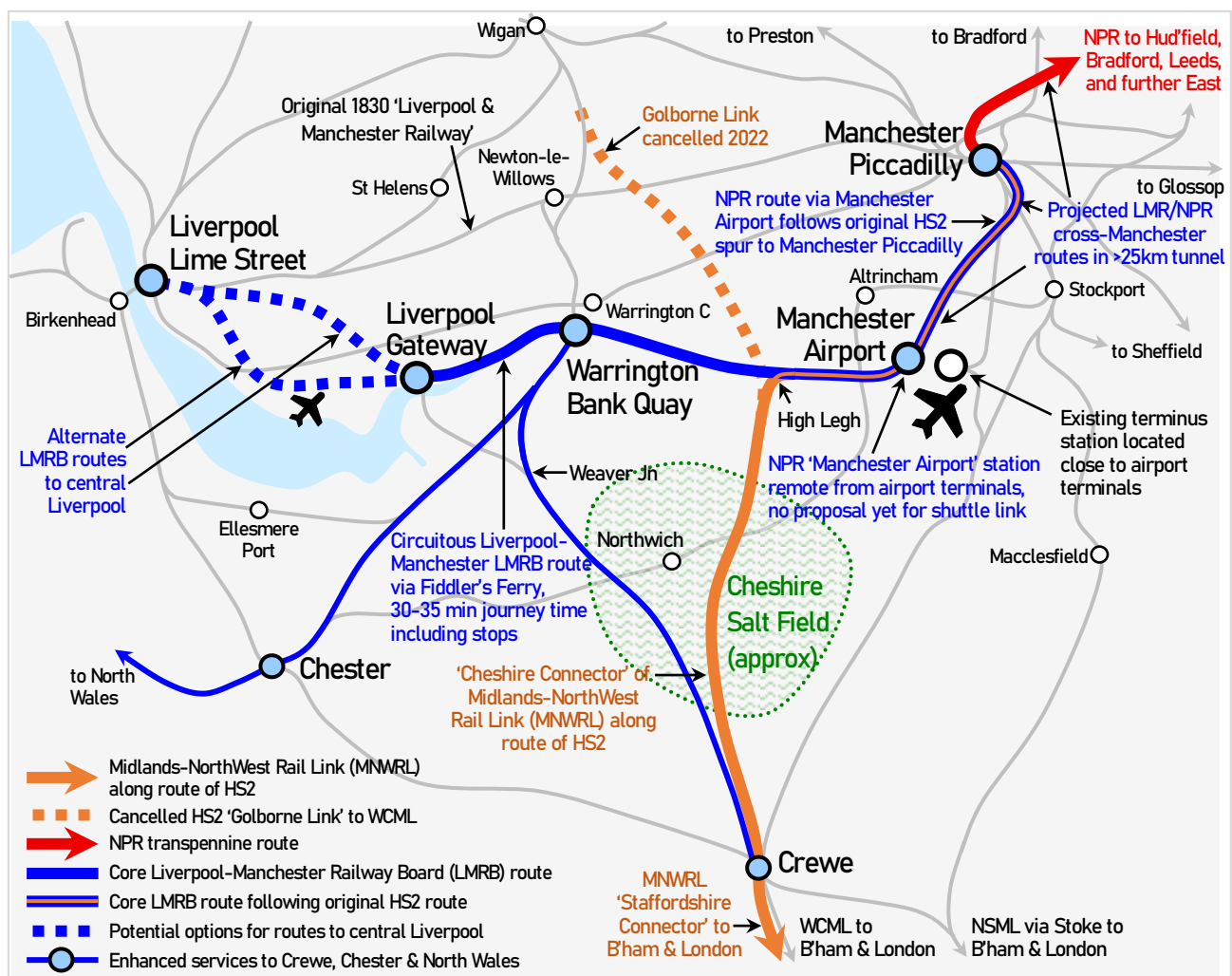


Figure A6.1 : Predication Effects of Midlands-NorthWest Rail Link upon development of Northern Powerhouse Rail in North-West

(Sketch developed from *Connecting the North-West to drive national prosperity – Our prospectus for a modern Liverpool-Manchester Railway*, Liverpool-Manchester Railway Board, 2025)

- **2022** – HS2 ‘Golborne Link’ to WCML (shown in brown dashes) cancelled.
- **2023** – HS2 Phase 2a/2b (from the West Midlands to High Legh) cancelled; remaining HS2 Manchester spur adopted by Northern Powerhouse Rail.
- **2024** – Midlands-NorthWest Rail Link (MNWRL) launched as a lower-speed alternative to HS2 Phase 2a/2b, but following the same original HS2 route for the full route length from HS2 Phase 1 at Lichfield to its Manchester terminus.
- **2025** – Liverpool-Manchester Railway Board (LMRB) relaunch western element of Northern Powerhouse Rail as ‘Liverpool-Manchester Railway’, comprising (from east to west):
 - a ‘through’ underground station for NPR & MNWRL services at Manchester Piccadilly;
 - the HS2 Manchester Spur via a ‘Manchester Airport’ station;
 - an onward route to Liverpool along the currently mothballed ‘Fiddler’s Ferry’ freight line via Warrington Bank Quay (Low Level);
 - a new ‘Liverpool Gateway’ station;
 - connecting routes to Crewe, Chester and North Wales, diverging at Warrington BQ.
- **2026** – Government’s *Northern Growth Strategy* (launched 14 January 2026), endorsing both Midlands-NorthWest Rail Link and LMRB’s ‘Liverpool-Manchester Railway’ as co-dependent projects.

The configuration of LMRB’s Liverpool-Manchester route, relative to both HS2/MNWRL and the existing railway network, is illustrated on the previous page in Figure **A6.1**.

It is plain that the circuitous LMRB route, following slow-speed freight alignments through Warrington, and approaching central Manchester from the south along a route originally selected for HS2, cannot constitute the optimum Liverpool-Manchester railway:

- Its predicted journey time of 30-35 minutes (dependent upon stopping pattern) is no better than what can be achieved on the original (and much more direct) Liverpool & Manchester Railway via Newton-le-Willows, first opened in 1830.
- The LMRB’s proposed route via the Fiddler’s Ferry freight line will block this line’s future use as part of a dedicated transpennine freight corridor, connecting Liverpool and the Humber.
- No design has yet been advanced for its new hub station at Warrington Bank Quay, with efficient co-located interchange between existing high-level WCML platforms, new low-level platforms for the trunk Liverpool-Manchester route, and junction platforms for the southward through routes towards Crewe and Chester.
- No proposal has yet been put forward for how its proposed ‘Manchester Airport’ station, located to the west of the M56, will be efficiently connected to the actual airport terminals, located 1.5km to the east, on the other side of the motorway.
- It is also plain that the LMRB solution for Manchester Airport does not comprise an integrated initiative that will deliver efficient and comprehensive surface access to Manchester Airport from all major Northern Powerhouse communities.
- No viable proposal yet exists for its station at Manchester Piccadilly. It will comprise either an operationally-difficult and limited-capacity surface-level terminus, or an underground station with sufficient platforms to accommodate both NPR through flows and MNWRL/HS2 terminating services – all constructed on a broad north-south alignment in a cavern below the existing station, with huge costs and risks. ***It should be noted that neither option will resolve existing congestion problems along the Castlefield Corridor.***

- Dedicated HSUK/NN Liverpool-Manchester intercity route completely independent of dedicated HSUK/NN transpennine freight route via Fiddler's Ferry and Warrington Bank Quay (Low Level) – *not illustrated on Figure A6.2*.
- All intercity and regional journeys concentrated upon existing Warrington Bank Quay (High Level), avoiding the need for new (and probably remote) platforms, and offering Warrington greatly superior overall connectivity compared with LMRB scheme.
- All intercity and regional journeys concentrated upon existing Manchester Airport station (at its existing central location between Terminals 1, 2 and 3), transformed into through facility with massively increased capacity.
- Manchester Airport's rail network transformed, extending direct high-quality services to all major Northern Powerhouse communities.
- Central Manchester 'Castlefield Corridor' congestion problems addressed with new west-to-east cross-Manchester tunnel, serving new 'Manchester Central' station and new Manchester Piccadilly underground platforms, located under Fairfield Street and largely clear of existing station structures.

HSUK/Network North's demonstrable superiority can be attributed to many factors, the most fundamental of which is its design in compliance with clear, locally-established technical parameters – primarily developed for transformed east-west/transpennine connectivity – which generally comply with the Key Technical Specification set out in **Appendix A**.

By contrast, the priority of the designers of the LMRB's Liverpool-Manchester Railway, and of the wider Northern Powerhouse Rail scheme, has always been to conform with the established HS2/MNWRL scheme – which was developed with no thought for transpennine connectivity.

Through this clear logical contradiction between the aims of HS2/MNWRL and the aims of Northern Powerhouse Rail, Transport for the North has ignored its own journey time specification and put forward plainly sub-optimal transport proposals that will fail to meet TfN's self-imposed ambitions¹⁴ for transformed connectivity, and £118 billion GVA economic growth.

¹⁴ TfN's ambitions are set out in pp27-28 of *Strategic Transport Plan*, Transport for the North, 2024. See also **Appendix C**, Section C1

APPENDIX B

HSUK (*unless otherwise noted***) DIAGRAMS ILLUSTRATING:

Proposals developed by TfN for Northern Powerhouse Rail

Alternative HSUK/Network North scheme

Index	Description
B01	‘One North’ Journey Time Targets and Routeing Concepts (2014)**
B02	TfN Journey Time/Service Frequency Targets between Northern Cities##
B03	TfN ‘Preferred Network’ for Northern Powerhouse Rail (2024) ##
B04	Principal Changes to NPR scheme under <i>Northern Growth Strategy</i> (2026)
B05	HSUK/Network North Proposed Infrastructure
B06	HSUK/Network North Proposed Intercity & Local Network
B07	HSUK/Network North Proposed Intercity Services
B08	HSUK/Network North Proposed New Works & Upgrades in West Yorkshire
B09	HSUK/Network North Indicative Suburban Services in West Yorkshire
B10	HSUK/Network North Proposed New Works & Upgrades in Greater Manchester
B11	HSUK/Network North Indicative Suburban Services in Greater Manchester
B12	HSUK/Network North Proposed New Works & Upgrades in Merseyside
B13	HSUK/Network North Indicative Suburban Services in Merseyside
B14	HSUK/Network North Proposed New Works & Upgrades in South Yorkshire
B15	HSUK/Network North Indicative Suburban Services in South Yorkshire
B16	HSUK/Network North Proposed New Works & Upgrades in North-East
B17	HSUK/Network North Indicative Suburban Services in North-East

** Drawing by ‘One North’ group of Northern City Councils (i.e. Leeds, Manchester, Liverpool, Sheffield, Newcastle)

Drawing by Transport for the North

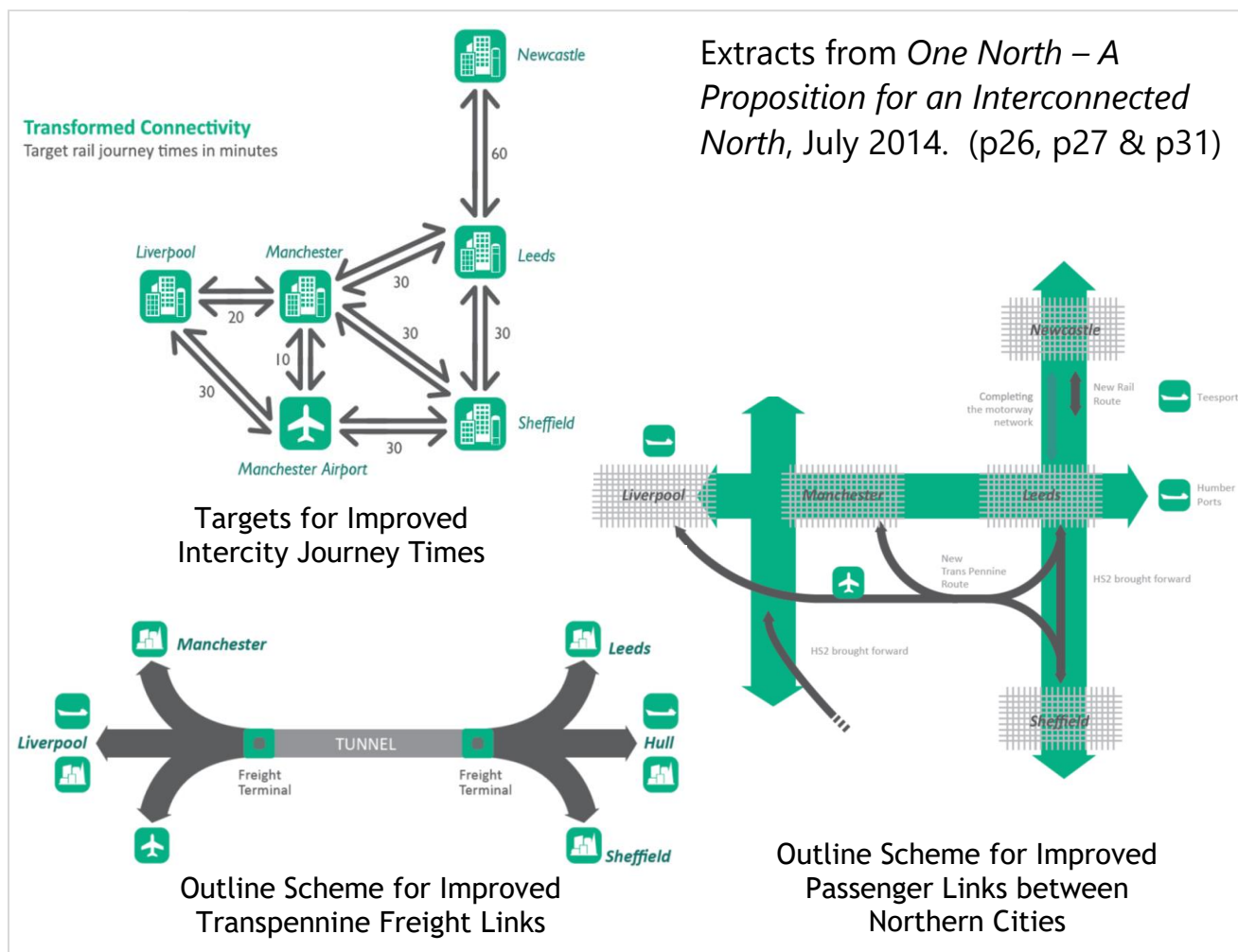
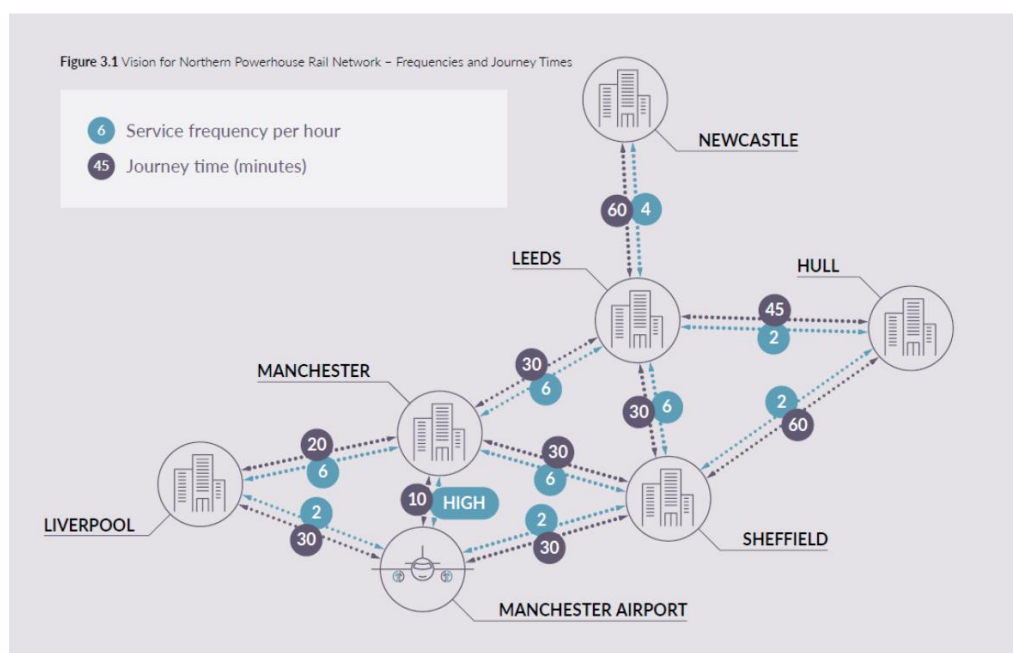


Figure B01 : 'One North' Journey Time Targets and Routeing Concepts (2014)



Extract from *The Northern Transport Strategy : Spring 2016 Report*, Transport for the North, March 2016

Figure B02 : TfN Journey Time/Service Frequency Targets between Northern Cities

Figure 5.1: Northern Powerhouse Rail: TfN Preferred Network

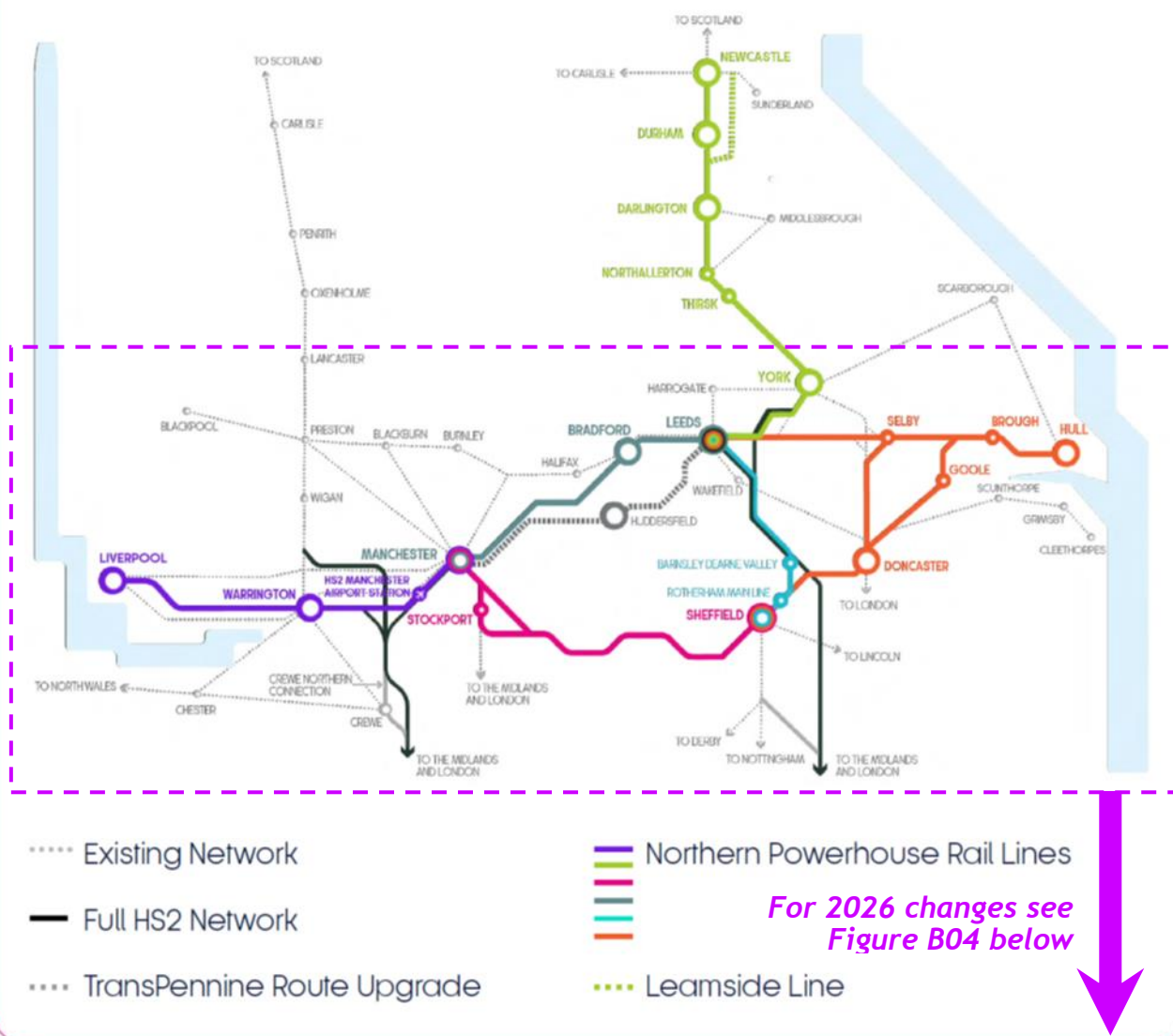


Figure B03 : TfN 'Preferred Network' for Northern Powerhouse Rail as set out in Strategic Transport Plan (2024)

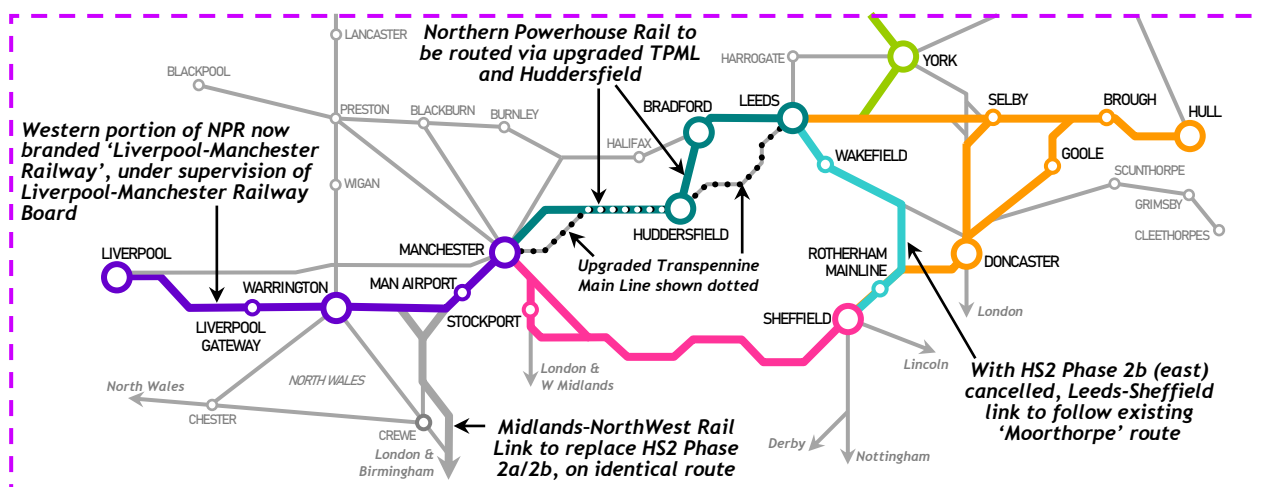
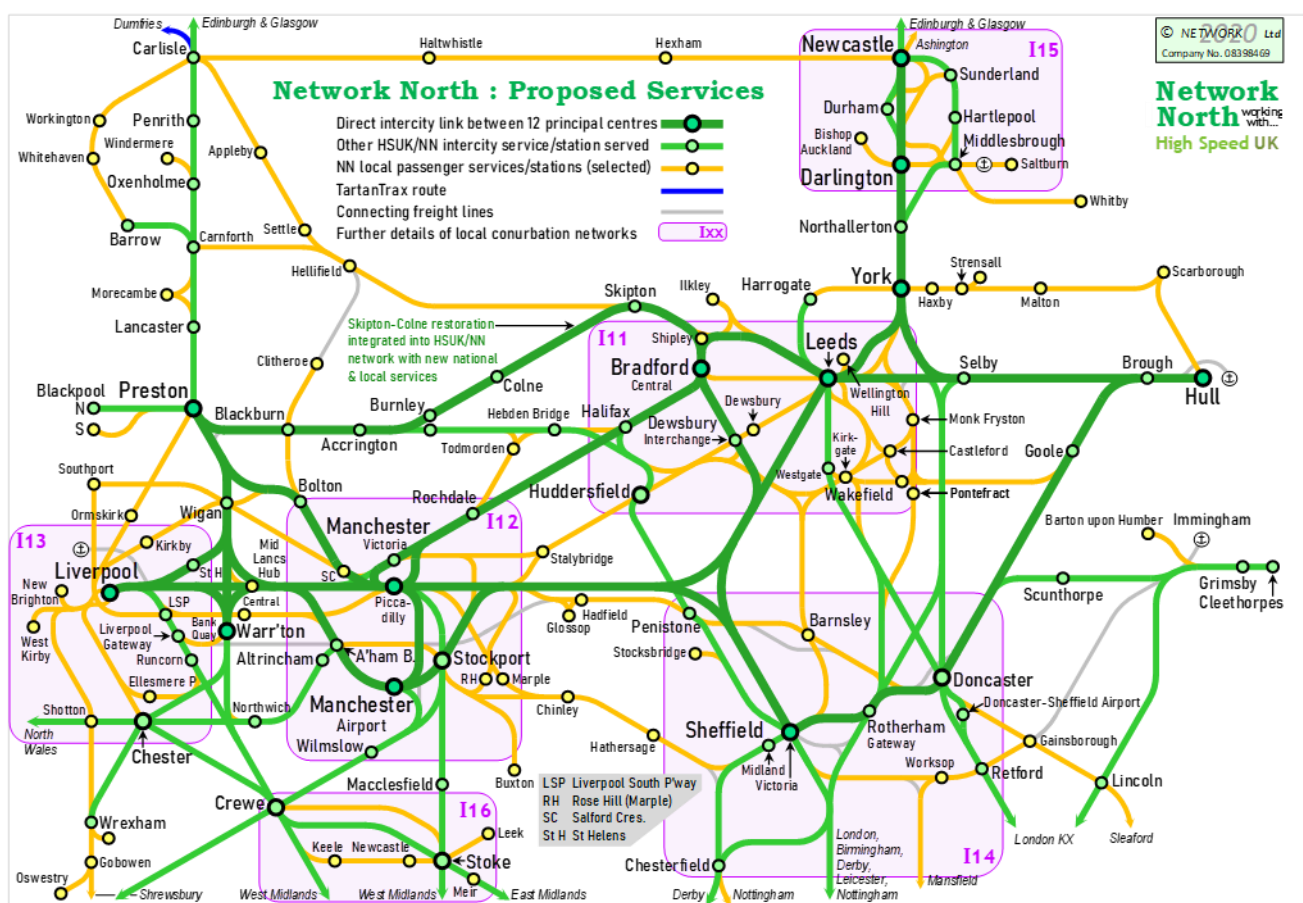
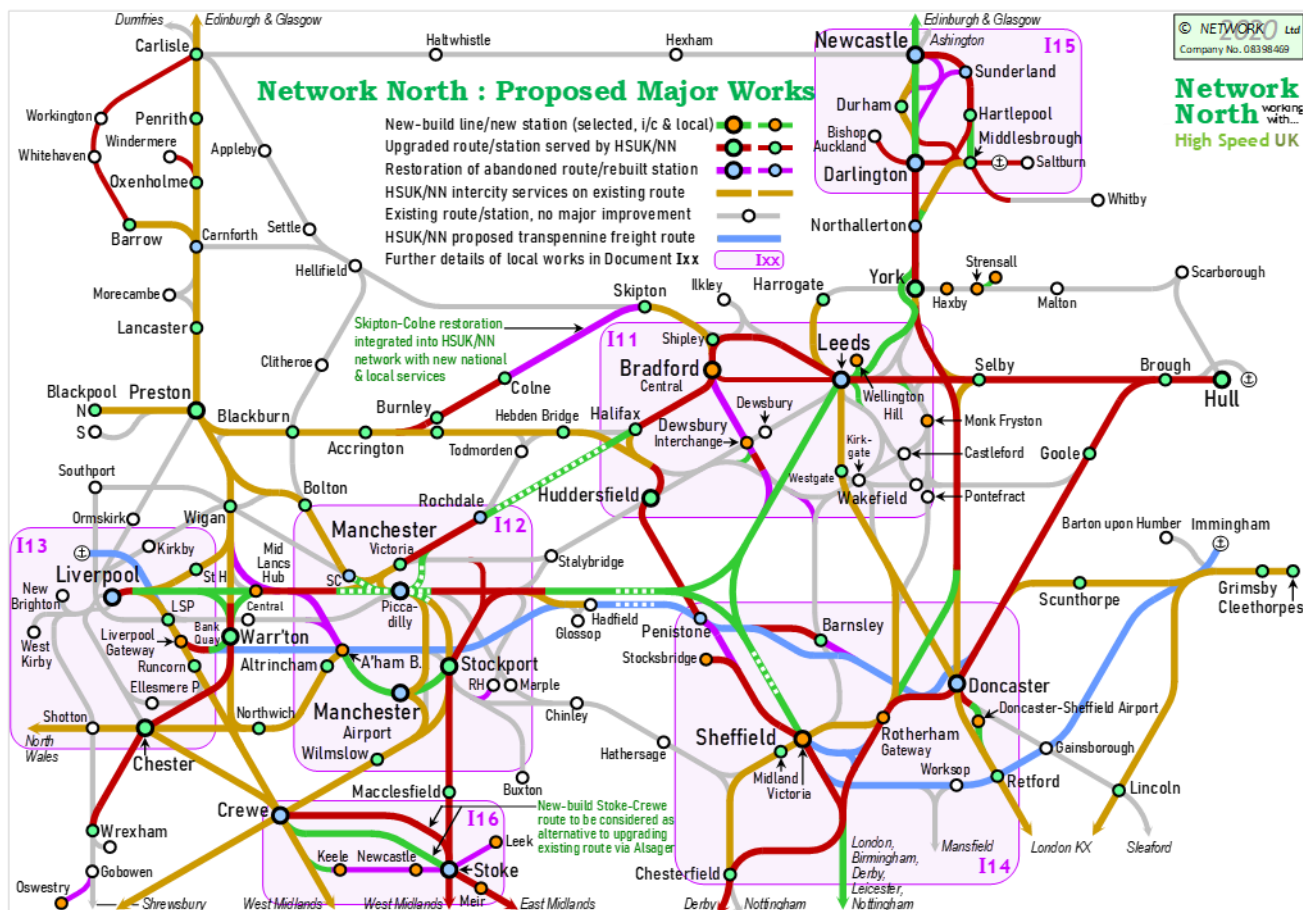


Figure B04 : Principal Changes to Northern Powerhouse Rail scheme under HMG Northern Growth Strategy (2026)



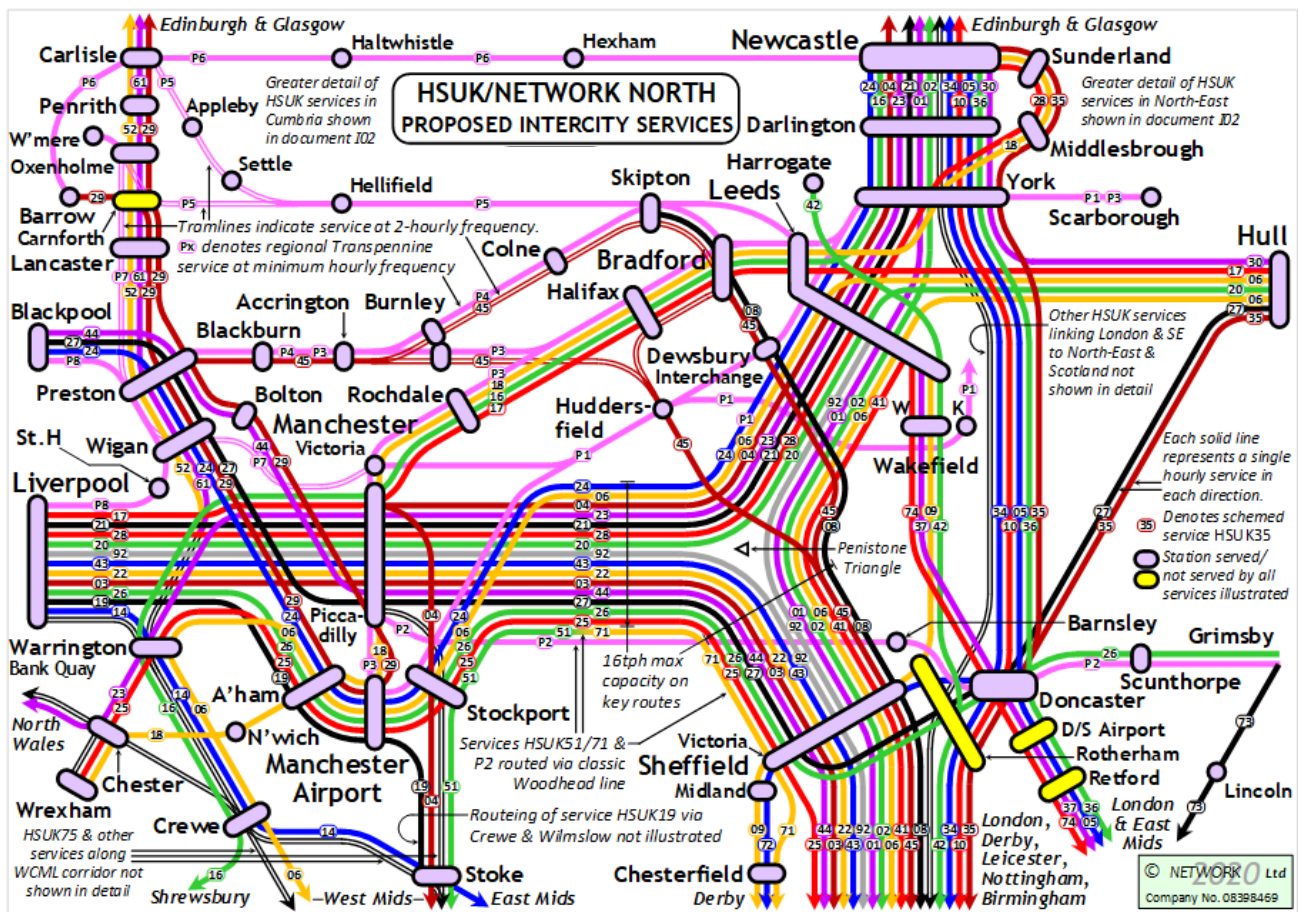


Figure B07 : HSUK/Network North Proposed Intercity Services

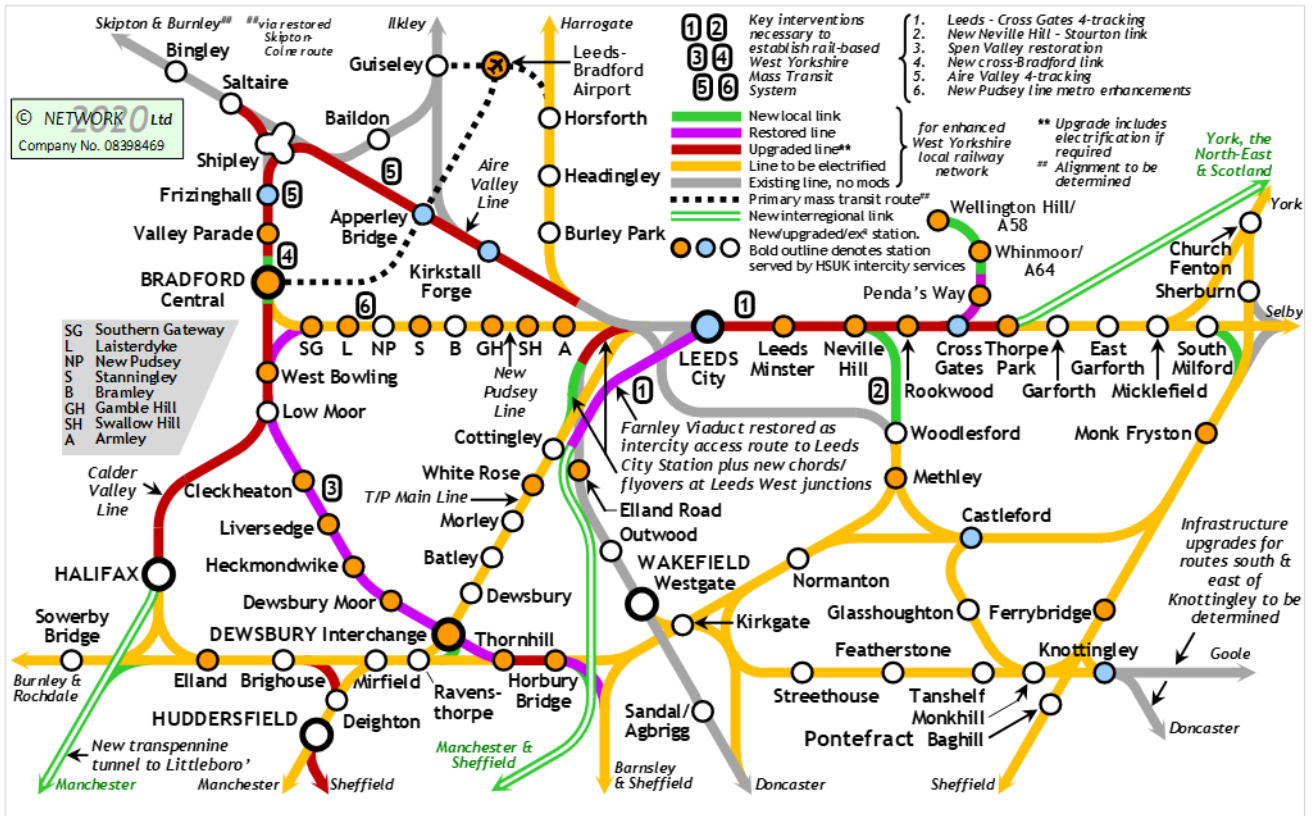


Figure B08 : HSUK/Network North : Proposed West Yorkshire New Works/Upgrades

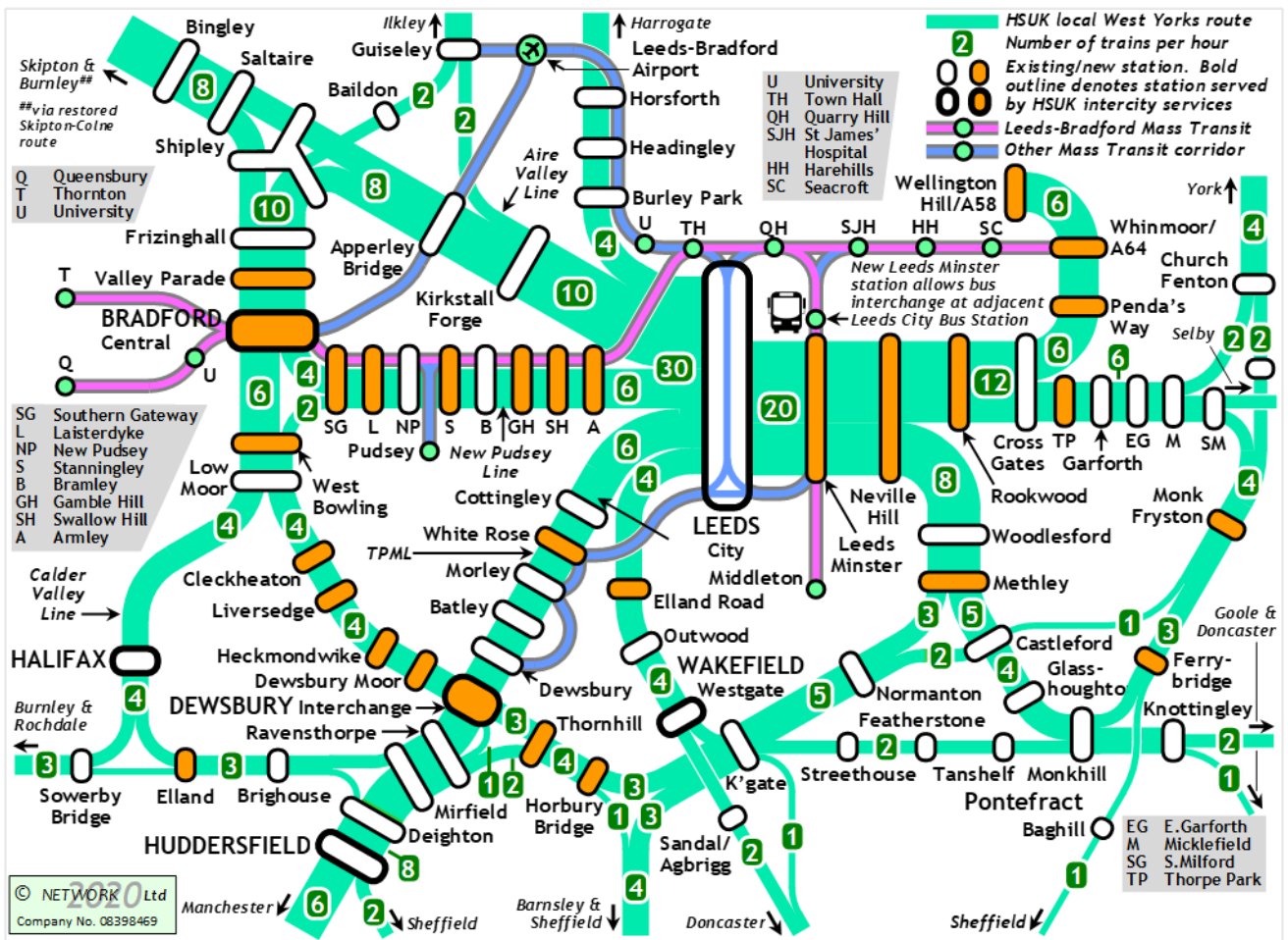


Figure B09 : HSUK/Network North : Indicative Suburban Services in West Yorkshire

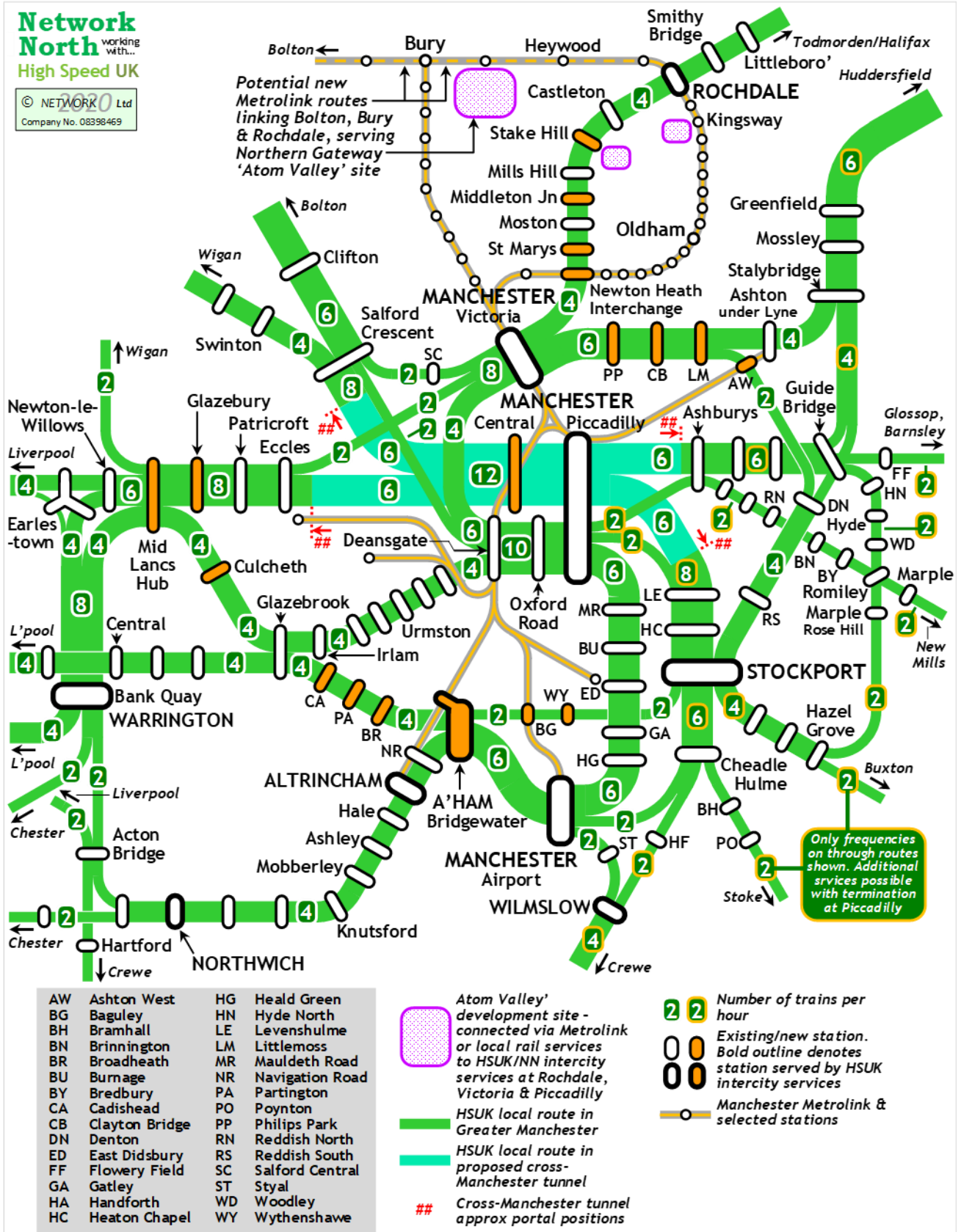


Figure B11 :

HSUK/Network North : Indicative Suburban Services in Greater Manchester

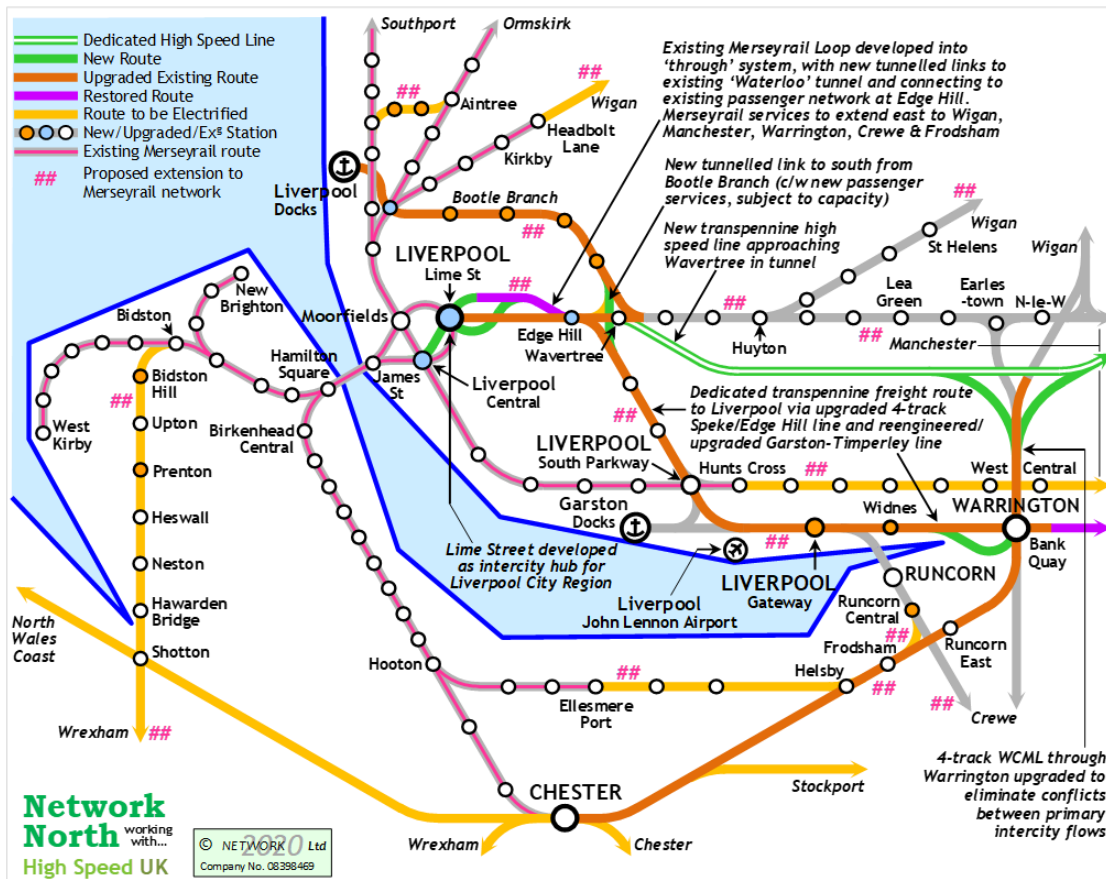


Figure B12 : HSUK/Network North Proposed New Works & Upgrades in Merseyside

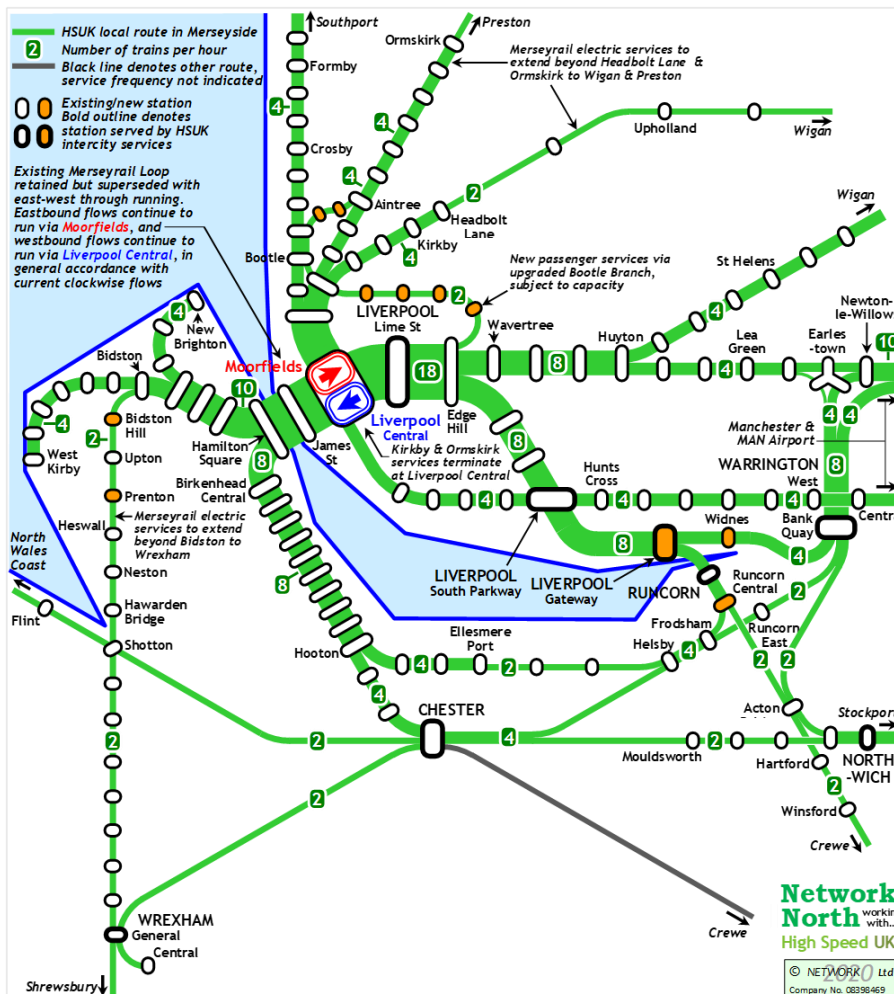


Figure B13 : HSUK/Network North : Indicative Suburban Services in Merseyside

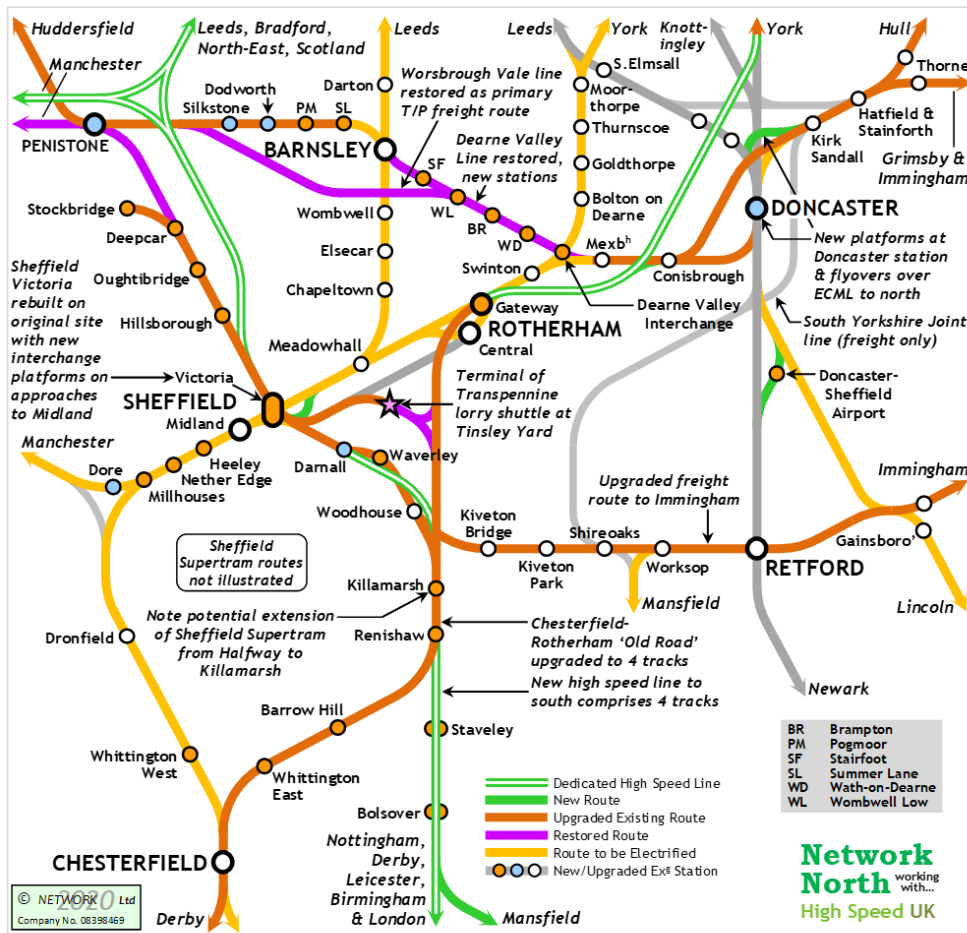


Figure B14 : HSUK/Network North : Proposed South Yorkshire New Works/Upgrades

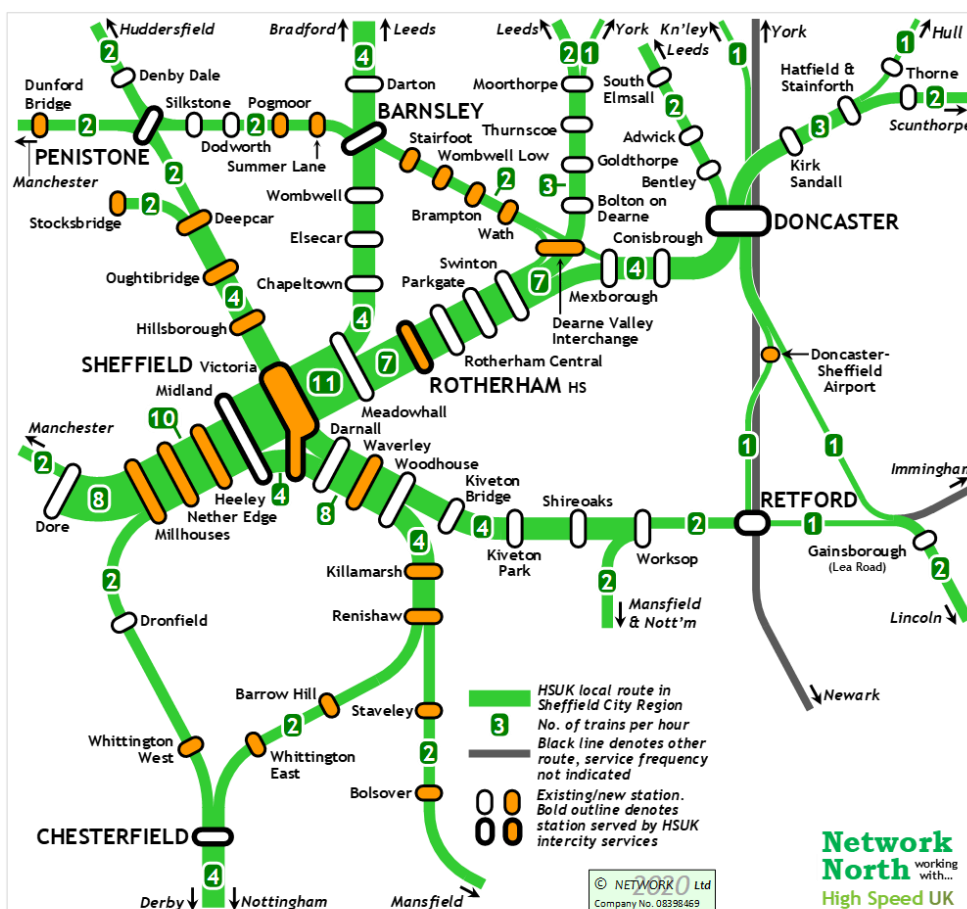
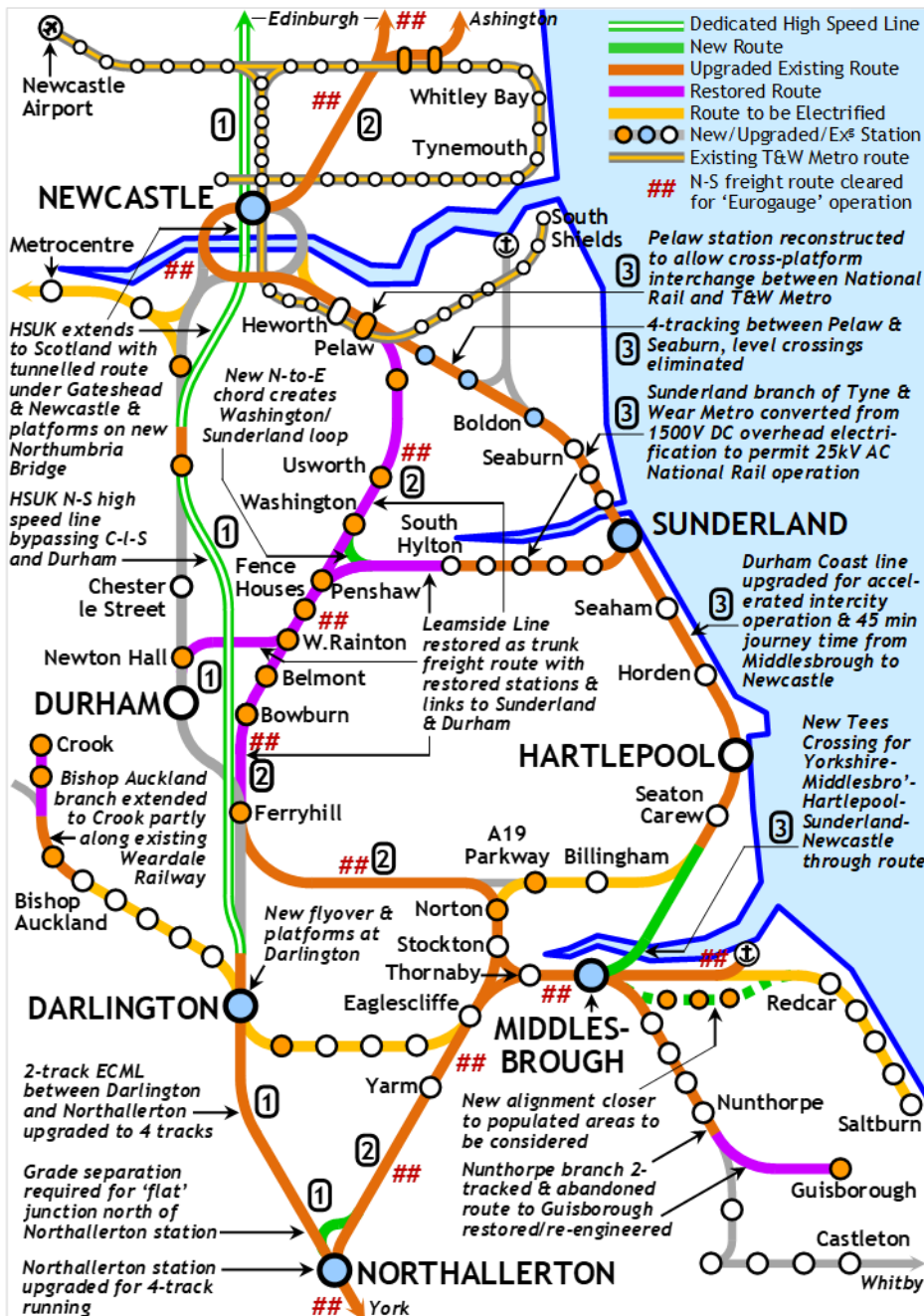


Figure B15 : HSUK/Network North : Indicative Suburban Services in South Yorkshire



Primary Interventions proposed by HSUK

- 1 New Anglo-Scottish high speed line
- 2 North-South freight spine route including Leamside restoration
- 3 Development of Durham Coast route as through intercity corridor linking Yorkshire/Middlesbrough/Hartlepool/Sunderland/Newcastle

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Network North working with...
High Speed UK

Figure B16 :

HSUK/Network North : Proposed New Works & Upgrades in North-East

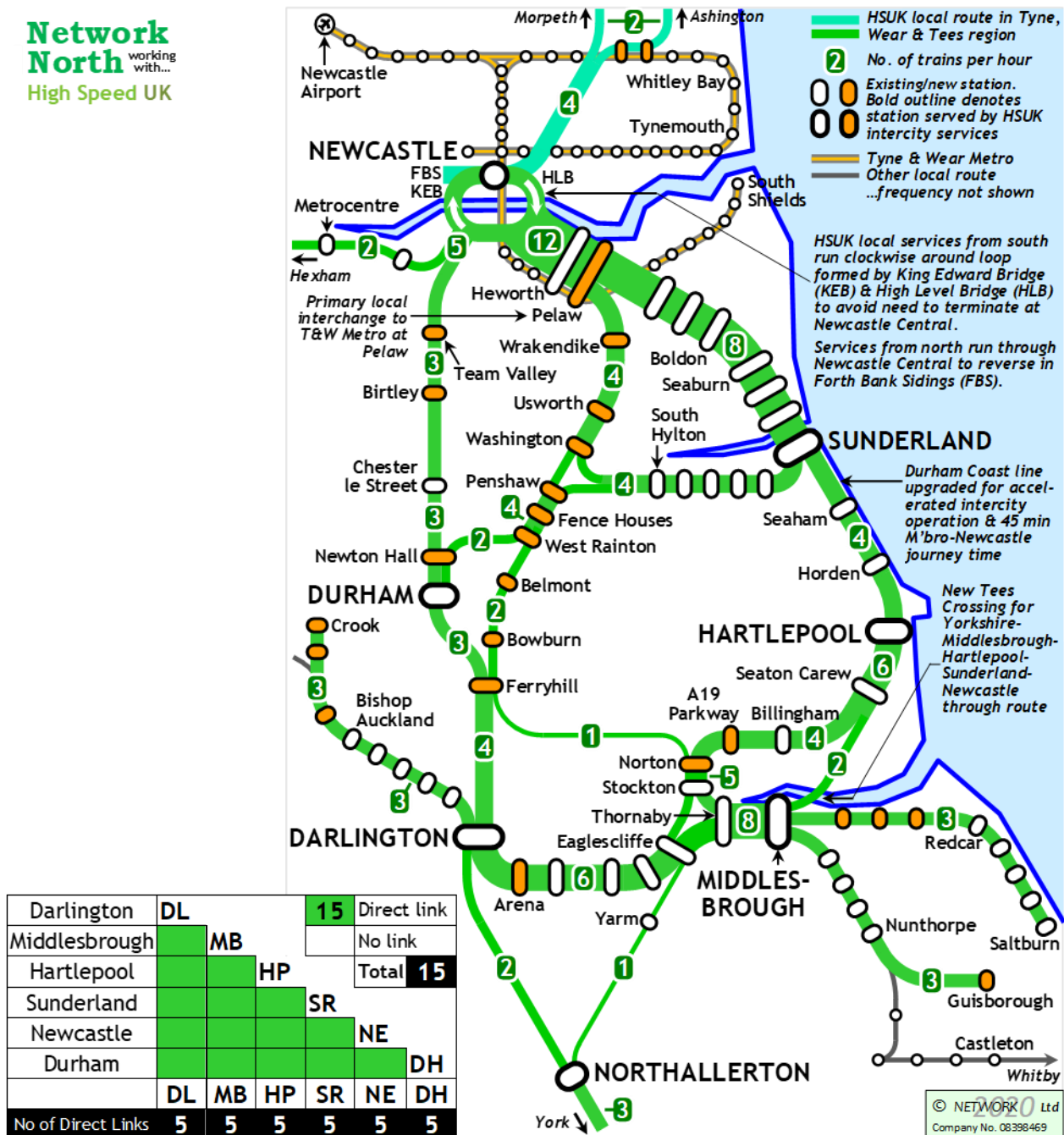


Figure B17 :

HSUK/Network North : Indicative Suburban Services in North-East

APPENDIX C

TRANSPORT FOR THE NORTH'S *STRATEGIC TRANSPORT PLAN* AND ITS CLAIM OF £118 BILLION GVA BENEFITS :

DETERMINATION OF PROVENANCE AND ASSESSMENT OF VALIDITY

Executive Summary

The findings of HSUK's review (set out in greater detail in Sections **C1– C6**) are summarised below:

1. The *Strategic Transport Plan*'s claim of £118 billion additional annual GVA is based upon the *Northern Powerhouse Independent Economic Review* (NPIER), a study first undertaken in 2016 by economists SKW and Cambridge Econometrics (CBE), and updated in 2023 to reflect contemporary post-COVID circumstances.
2. Although there is no doubt that SKW and CBE have done notable work in assessing the economic value of an optimally-connected and fully 'Levelled-up' Northern Powerhouse, there is no evidence that SKW and CBE have examined the actual Northern Powerhouse Rail scheme in any detail, to measure and assess meaningful attributes of its connectivity, capacity and integration, and to determine whether its performance actually matches this ideal.
3. Indeed, NPIER Para 7.9 includes the following telling statement: "...we have not sought to replicate any transport modelling work carried out by TfN and Partners..." This would seem to indicate that any transport-related aspect of NPIER's findings is reliant upon TfN's own data. This must cast huge doubt upon NPIER's true independence.
4. There is also major doubt as to the existence of substantive NPR proposals, for which SKW and CBE could measure and assess connectivity, and attribute appropriate economic value.
5. The STP gives no details of proposed routes – indeed, it is questionable whether such detailed routes even exist, given the absence of any official publication or 'leaks', over the 10 years in which TfN has been overseeing the development of Northern Powerhouse Rail.
6. The STP also openly concedes (STP Section 5, p76) that as yet, no substantive proposals have been developed to pass new NPR routes through, and address congestion problems at, critical node points, in particular Manchester and Leeds.

All this gives rise to a critical concern, that Transport for the North's claim of £118 billion annual GVA gains, as set out in TfN's *Strategic Transport Plan*, appears to relate not to actual substantive Northern Powerhouse Rail proposals, but instead to the fictionalised ideal of a Northern Powerhouse in which all communities enjoy optimised connectivity. Assuming this to be the case, this essentially reduces the *Northern Powerhouse Independent Economic Review* to an academic exercise, and it raises major concerns as to the conduct and integrity of Transport for the North.

C1 £118 billion Economic Benefits claimed for TfN *Strategic Transport Plan*??

The £118 billion claim is set out in Transport for the North's *Strategic Transport Plan*¹⁵ (STP), in STP Section 3.2.1, pp27-28, with the following specific statements:

"Transforming connectivity is fundamental to transforming the North's economy..." (STP p27, Col1, Para2, Line11) – *described in this communication as the TfN Vision Statement*

and...

"This would result in an economy in the North that would be £118bn larger by 2050 than current forecasts." (STP p28, Col2, Para1, Line8)

The first 'Vision Statement' appears to embody the commonly understood core mission of the *Strategic Transport Plan* – the transformation of the Northern Powerhouse's transport system in order to deliver transformational economic benefits, and thus achieve 'Levelling-up'.

The second statement follows on from a description of the STP's modelling methodologies, and specifically the 'New Transformational Scenario' on which the £118 billion claim is based.

There is a clear implication in these 2 statements, and in all of the supporting text, that the measures set out in the *Strategic Transport Plan* will conform to the 'New Transformational Scenario', and thereby enable the promised £118 billion economic gains. This is surely the STP's fundamental purpose, a plan that will deliver. However, it is significant to note that this implied claim is never definitively articulated in the *Strategic Transport Plan*.

C2 Origin of TfN's Claim of £118 billion Economic Benefits

The STP cites the *Northern Powerhouse Independent Economic Review* (NPIER) as the source for the £118 billion claim. NPIER is a study compiled jointly by economists SKW and Cambridge Econometrics (CBE), published first in 2016 and updated in 2023 to reflect post-COVID changes. Its findings are set out in the following 2 documents pertaining to the *Northern Powerhouse Independent Economic Review*:

- ***Economic scenarios for the Northern Powerhouse Independent Economic Review***¹⁶, authored by SQW and CBE, is the economists' primary output.
- ***The Northern Powerhouse Independent Economic Review : Summary Report***¹⁷, nominally authored by TfN, is essentially just a sanitised and watered-down repeat of SQW/CBE's *Economic Scenarios...* document, all in TfN-speak. This is included only for completeness.

C3 Review of SKW/CBE '*Economic Scenarios...*' Document

Key points to note are as follows:

1. As confirmed in the first paragraph of the Executive Summary (NPIER **X1**), the forecast £118 billion GVA growth for 'the North' is per annum. This is also confirmed in Figure **2** on p6.
2. NPIER has been compiled with the specific intent of supporting Transport for the North's *Strategic Transport Plan* (STP) (NPIER **X2**).
3. NPIER's forecast GVA growth is based upon 4 separate Change Scenarios ('Technology & Innovation' (**T&I**), 'Inclusive Productivity' (**IP**), 'Development Supply' (**DS**) and 'Net Zero' (**NZ**)), and their collective synergies to arrive at a 'New Transformational Scenario' (NPIER **X7**).

¹⁵ <https://www.transportforthenorth.com/our-north/strategic-transport-plan/>

¹⁶ chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://transportforthenorth.com/wp-content/uploads/Economic-Scenarios-for-the-NPIER-Final-Report-for-Publishing.pdf

¹⁷ chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://transportforthenorth.com/wp-content/uploads/NPIER-2023-Summary-Report-For-Final-Publication.pdf

4. The **DS** & **NZ** scenarios are acknowledged as being transport-related. It is later noted (NPIER **9.9**) that the **T&I** and **IP** scenarios are “held back by suboptimal infrastructure”. That means that all aspects of the NPIER’s ‘New Transformational Scenario’ are dependent upon similarly-transformed transport infrastructure.
5. NPIER **X13** lists the key performance attributes of the ‘New Transformational Scenario’, including £118 billion additional (annual) GVA.
6. NPIER **X14** effectively equates £118 billion GVA growth to ‘Levelling-up’ i.e. elevating the economic performance of the North to match that of the rest of the UK. The £118 billion figure broadly aligns with the disparities in regional GDP, available from other sources.
7. Figure **2.1** shows that ‘the North’ – as referred to throughout NPIER – almost exactly matches the nominal boundaries of the Northern Powerhouse, which also includes North Lincolnshire (i.e. Scunthorpe) and North-East Lincolnshire (i.e. Grimsby/Cleethorpes).
8. NPIER recognises the crucial need to address the “relatively weak connectivity within and between the North’s major urban centres and their hinterlands” (NPIER **7.8**).
9. However, there is no indication anywhere in NPIER that its authors (i.e. SKW and CBE) have undertaken any modelling of the proposals set out in TfN’s *Strategic Transport Plan* (i.e. Northern Powerhouse Rail, *et al*) to determine and quantify either their connectivity performance or the economic benefits that might accrue.
10. And in the next paragraph (NPIER **7.9**) the report’s authors state: “...we have not sought to replicate any transport modelling work carried out by TfN and Partners.” This carries the strong implication that SKW and CBE have used TfN’s transport data in their own supposedly independent report.

This is the crucial logic gap in NPIER. Its authors clearly understand the need for a transformation in the North’s transport connectivity, to make possible their prediction of transformational economic growth. Yet they make no definitive statement that they have done the independent checks to verify that TfN’s proposed transport schemes will effect the necessary transformation, and they present no evidence to demonstrate such a process. Instead, they appear to have meekly accepted TfN’s modelling data, which presumably makes the necessary assertions of transformational performance.

The limited extent of SQW’s and CBE’s review is duly caveated in NPIER (i.e. the original *Economic Scenarios...* document), as befitting professional economists working to a restricted client brief. But there appears to be no equivalent caveating in TfN’s *Summary Report*.

C4 Conclusions from HSUK Review of NPIER

The following conclusions can be drawn from the HSUK review of the *Northern Powerhouse Independent Economic Review* (NPIER):

- NPIER provides no evidence to demonstrate that its authors (i.e. SKW and CBE) have ever undertaken any worthwhile assessment of the connectivity performance, and the consequential economic gains, of the specific NPR proposals developed by Transport for the North, as set out in the *Strategic Transport Plan*.
- Any review undertaken by SKW and CBE of the actual NPR proposals appears to be completely reliant on TfN’s own transport modelling data. This data presumably indicates a level of transformation in the North’s connectivity – yet NPIER’s authors appear to have taken this information (or simple assurance) completely on trust.
- The *Northern Powerhouse Independent Economic Review* is therefore not independent.

- Hence NPIER essentially reduces to an academic exercise – a calculation of what an optimally-connected transport network might achieve for the North of England. (***It actually comprises a very powerful justification for HSUK/Network North.***)
- If TfN's schemes fail to deliver – as all analysis appears to indicate – the claimed transformational improvement in connectivity performance required to bring about this optimally-connected network, then the claimed transformational benefits – £118 billion additional GVA, *et al* – simply cannot happen.

C5 Review of Relevant Sections of TfN's Strategic Transport Plan

It is worthwhile also to undertake a detailed review of the relevant paragraphs of TfN's *Strategic Transport Plan*, that relate to the *Northern Powerhouse Independent Economic Review* and its claim of £118 billion GVA growth:

1. STP Section **3.2.1** fully describes the reliance of the *Strategic Transport Plan's* business case on the transformed economic performance predicted in the *Northern Powerhouse Independent Economic Review*.
2. However, the STP makes no reference to the strong implication (NPIER **7.9**) that NPIER was compiled using TfN's own transport modelling data, apparently without any checking process or independent modelling by SKW and Cambridge Econometrics.
3. STP **3.2.1** is unambiguous in describing the 'cause and effect' linkage between improved connectivity and economic growth: "Transforming connectivity is fundamental to transforming the North's economy..."
4. STP **3.2.1** goes to significant lengths to describe the various economic scenarios employed in NPIER, in particular the 'New Transformational Scenario', and it specifically cites the NPIER's prediction of £118 billion GVA growth: "This (i.e. the 'New Transformational Scenario') would result in an economy in the North that would be £118bn larger by 2050 than current forecasts", with productivity "...higher...than the rest of England..."
5. This effectively amounts to a prediction of full Levelling-up.
6. With no major proposals for new roads, the *Strategic Transport Plan's* primary proposed interventions are within the rail sector.
7. STP Section **5.1** sets out the *Strategic Transport Plan's* rail strategy, with its proposals detailed in Figure **5.1** on p75.
8. This shows only 2 interventions which might in any way be characterised as 'transformational' – a new Liverpool-Manchester route via Warrington Bank Quay and the HS2 station at Manchester Airport (i.e. approximately 1 mile from Manchester Airport, on the opposite side of the M56), and a new Manchester-Leeds transpennine main line, routed via a new station in Bradford.
9. These schemes are only presented in sketch format on STP Figure **5.1**. There is not (and never has been, either via official publication or unofficial 'leak') any more detail to indicate likely alignments.
10. Across the remainder of the *Northern Powerhouse*, the TfN proposals comprise nothing more than incremental interventions.
11. Moreover, STP Section **5.1** (p76) also details a long list of rail congestion issues in the North, which the *Strategic Transport Plan* fails to address, including:
 - a) Manchester Piccadilly and the Castlefield Corridor running westwards from Piccadilly
 - b) Manchester Airport
 - c) Leeds City station

12. It should be self-evident that until these critical 'node' congestion issues are addressed in a convincing and costed scheme, the STP's proposed main-line interventions between these nodes are largely worthless.
13. Overall, TfN's *Strategic Transport Plan* provides no evidence of any structured and rational process, whereby options are considered, and selected on the basis of their quantified performance, in the development of Northern Powerhouse Rail.

C6 Conclusions from HSUK Review

On the analysis set out in this paper, it is impossible to characterise the Northern Powerhouse Rail scheme set out in TfN's *Strategic Transport Plan* as the strategic transport intervention with the **scope, scale and railway engineering detail** necessary to deliver the promised economic transformation. Hence it should be regarded (at least on the current balance of evidence, unless TfN put forward a convincing alternative narrative) as unfit for purpose, and incapable of delivering its promise of £118 billion GVA growth, *et al.*

But there is also a concerning fundamental ambiguity at the heart of Transport for the North's *Strategic Transport Plan*. The prediction of £118 billion additional GVA benefits relates specifically to the NPIER's 'New Transformational Scenario', which in turn would seem to relate to the transformations in connectivity and capacity that the STP is intended to bring about. This could easily be interpreted as a promise that the actual physical projects set out in the *Strategic Transport Plan* would, when implemented, deliver the predicted £118 billion benefits; yet this specific promise is never made.

This might be no more than a simple textual omission, with Transport for the North confidently (if misguided) predicting that their Northern Powerhouse Rail scheme will deliver the transformation in connectivity and capacity necessary to bring about the promised economic transformation. If this is the case, these assertions of optimised performance can be easily disproved both by NPR's self-evident limitations, and also by the massively superior performance of the HSUK / Network North Exemplar Alternative.

But there is an alternative, more concerning potential interpretation of the available evidence. It is possible that certain parties within Transport for the North might be fully aware of the huge deficiencies of the NPR scheme, and that they might be seeking, by a 'sleight of hand' process, to falsely represent the huge economic benefits of an ideal and optimised railway network in the Northern Powerhouse as applying to their own inadequate NPR proposals.

It is plainly vital that this ambiguity and confusion is resolved without delay, and the best scheme, most capable of interconnecting and transforming the North, is chosen.

Colin Elliff BSc CEng MICE,
Civil Engineering Principal, High Speed UK

APPENDIX D

FREEDOM OF INFORMATION REQUESTS TO TRANSPORT FOR THE NORTH

The purpose of these Freedom of Information requests is to compel to Transport for the North to:

- a) reveal the basis of the claim of £118 billion additional GVA benefits, and Levelling-up of the North's economy, that has been made in the 2024 *Strategic Transport Plan* and supported in the *Northern Powerhouse Independent Economic Review* (NPIER).
- b) demonstrate that Northern Powerhouse Rail (NPR) actually exists as a detailed, substantive scheme, developed to rigorous railway engineering criteria.
- c) explain how the NPR scheme conforms with the *Strategic Transport Plan's* vision statement: "Transforming connectivity is fundamental to transforming the North's economy."
- d) explain how NPR represents the best option to achieve this transformation.

High Speed UK's Freedom of Information requests to Transport for the North go as follows:

- Q1** Please confirm whether the £118 billion/Levelling-up claim is based upon an idealised, optimally-connected Northern Powerhouse (**Alternative A**) – or upon TfN's actual Northern Powerhouse Rail proposals as represented in the *Strategic Transport Plan* (**Alternative B**).
- Q2** If **Alternative A** is the case, please explain how the demonstrably suboptimal NPR proposals will be enhanced to deliver the necessary optimal "transformed connectivity", including responses that address the following specific deficiencies (*inter alia*):
 - Q2.1** Journey times between the principal cities of the Northern Powerhouse, that comprehensively fail to meet TfN's original specification, set in 2016.
 - Q2.2** Primary city pairs such as Sheffield and Bradford (Yorkshire's second- and third-largest cities) which under the STP will continue to have no direct interconnecting rail service.
- Q3** If **Alternative B** is the case, please define the full detail of the NPR scheme that was considered by SKW and Cambridge Econometrics (CBE) in their development of NPIER.
- Q4** Please define what independent transport modelling (if any) was undertaken by SKW/CBE.
- Q5** Please define what transport modelling was undertaken by Transport for the North, and how this modelling was verified/validated by SKW/CBE.
- Q6** Please explain how this modelling (and its resulting claim of £118 billion additional GVA) addressed the lack of any definitive NPR schemes for central Manchester and Leeds (and by implication, Liverpool, Manchester Airport, Sheffield, Bradford, Newcastle etc), and what assumptions were made for optimised network performance at these locations.
- Q7** Please provide full details of previous and current NPR transpennine routes.
- Q8** Please explain how TfN's design processes have been developed to ensure that Northern Powerhouse Rail (and other associated schemes as described in the STP) will deliver the "transformed connectivity" demanded in your *Strategic Transport Plan*.
- Q9** Please explain how TfN have evaluated the alternative Network North scheme, with its well-documented ability to deliver the required "transformed connectivity" – as advised in HSUK letter dated 20/11/24 (ref **L19**) – that is essential to "transforming the North's economy".
- Q10** Please describe the processes that TfN have adopted, to identify critical alignments for new (or upgraded or restored) railway routes, and then liaise with the appropriate Planning Authorities to protect these routes from encroaching urban development.
- Q11** Please review the technical comparisons set out in **Appendix A**, and provide an alternative narrative if you believe any of these comparisons to be wrong, unfair or inappropriate.