APPENDIX L1

CONNECTIVITY IMPROVEMENTS ACHIEVED BY HS2 AND HIGH SPEED UK FOR:

LEEDS

and West Yorkshire conurbation

(extract from *HS2 - High Speed to Nowhere*)

Leeds *and West Yorkshire conurbation*

Town/City	Leeds
City Region	West Yorkshire
Population of built-up area**	**1,800,000**
Ranking amongst UK cities**	**4**
Number of cities directly linked by existing rail network (out of 31)	**17**

References:
HSUK Yorkshire Rail Strategy
HSUK Transpennine Rail Strategy
HSUK Regional Maps 11 & 12
HSUK Leeds Network Map
All available on HSUK website
www.highspeeduk.co.uk

** https://en.wikipedia.org/wiki/List_of_urban_areas_in_the_United_Kingdom - note that Wikipedia definition of Leeds' built-up area includes Bradford and Huddersfield

Leeds : Intercity Connectivity with HSUK and HS2

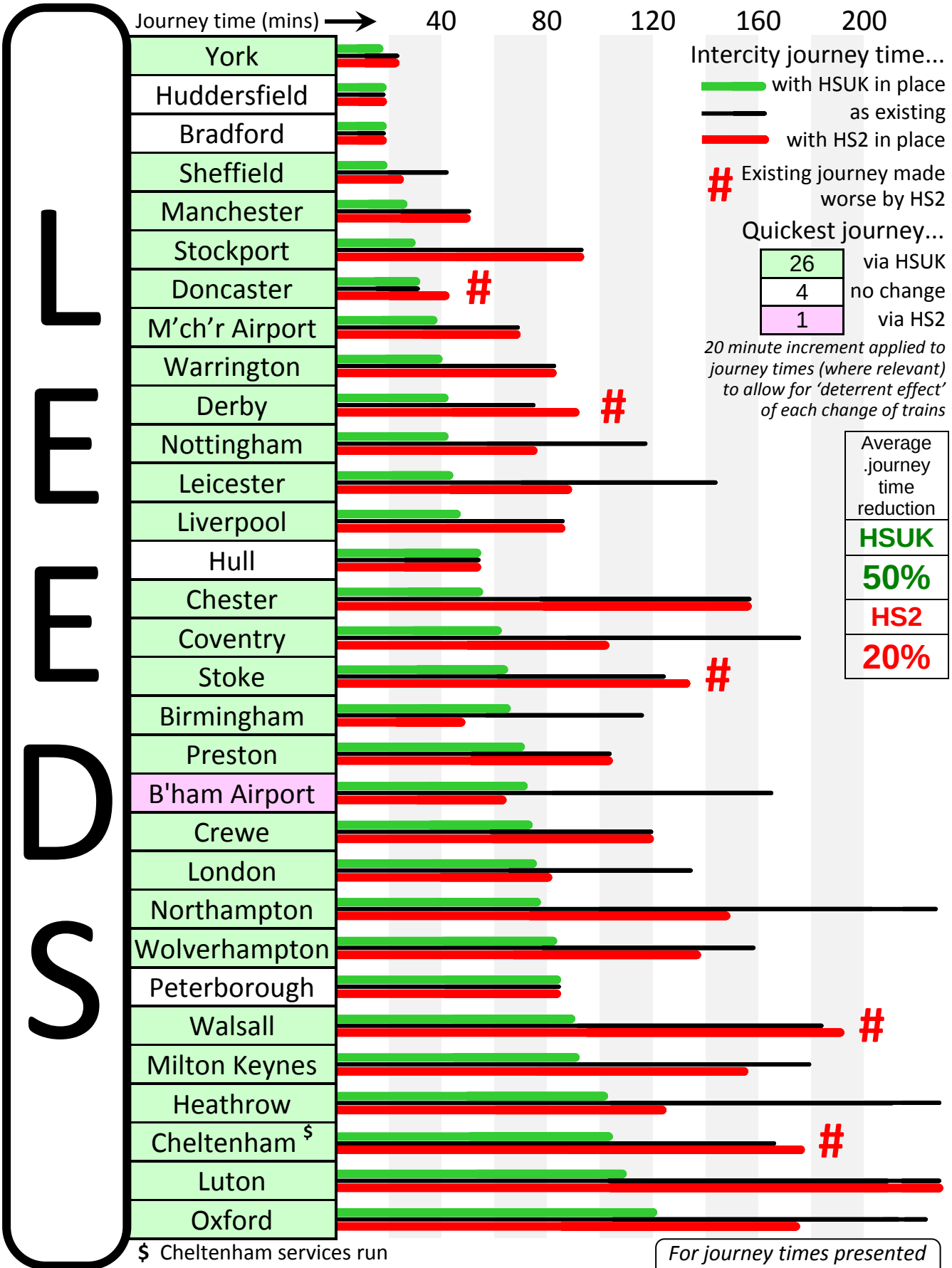
Leeds	Average journey time reduction	Cities directly linked (out of 30)	Journeys made faster (out of 31)	Journeys made worse (out of 31)	Best performer (out of 31 journeys)
High Speed UK	**50%**	**30**	**26**	**0**	**26**
HS2	**20%**	**4**	**12**	**5**	**1**

Leeds and the surrounding West Yorkshire conurbation comprise the largest urban area on the east of the Pennines, and Leeds City Station, located at the hub of the West Yorkshire rail network, is the busiest station in the North of England, with passenger numbers exceeded only by Birmingham New Street and various London termini. Although Leeds is a through station, the concentration of 6 incoming routes at its western throat, as opposed to a single route, means that it functions largely as a terminus, with most trains terminating there. As a consequence its 17 platforms (the greatest number outside London) are severely congested.

HS2 will serve Leeds by means of a south-facing spur from its trunk route (planned ultimately to continue to the North-East) to a new terminus station. This was originally planned to be located at New Lane, south of the River Aire, and remote from the existing station. Local pressure has led to revised proposals, with the station moved northward to meet the existing station in a T-bone arrangement. HS2 services will run from Leeds to Sheffield, Birmingham, Birmingham Airport and London. Major modifications to the existing station will be required to allow it to accommodate HS3 services. Existing congestion seems certain to remain.

HSUK's proposals for Leeds include the 4-tracking of the existing route to the east, the restoration of Farnley Viaduct to the south-west, and a new link from Stourton to Neville Hill to allow local services from Barnsley, Wakefield and Castleford to enter the station from the east. These 3 measures will create new capacity on the approaches to separate local and intercity services. This will allow HSUK services to operate from Leeds City Station to all principal UK cities and also free up sufficient platform space to allow local services to be approximately doubled in frequency.

HIGH SPEED UK & HS2 LINKS TO LEEDS



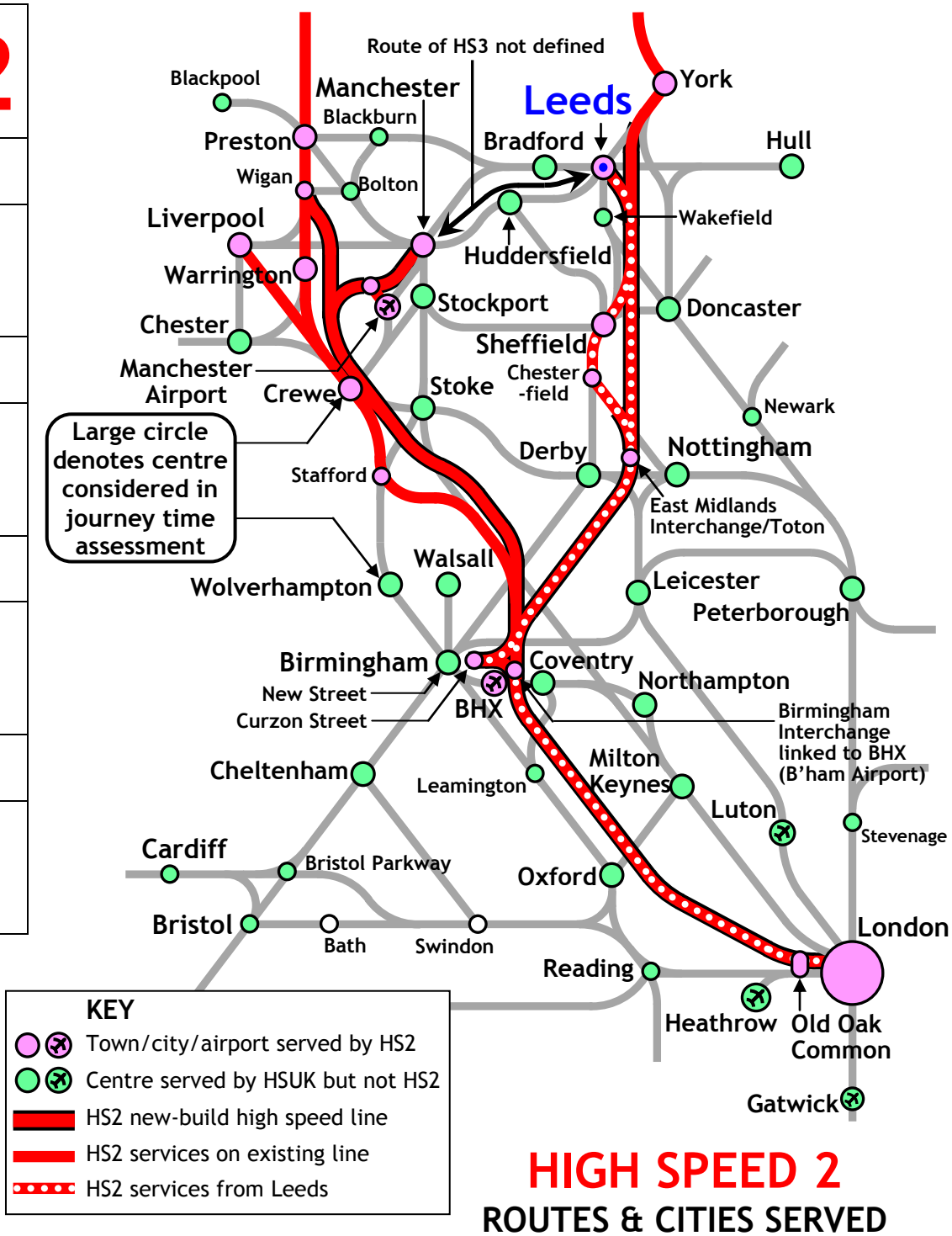
$ Cheltenham services run onward to Bristol and Cardiiff

For journey times presented in tabulated format see p260

LEEDS

Located on spur, HS2 direct links only to London, Sheffield, Birmingham & Birmingham Airport

HS2
Average journey time reductions:
20%
No. of cities directly linked:
4
No. of journeys made faster:
12
No. of journeys made worse:
5



HIGH SPEED 2
ROUTES & CITIES SERVED

LEEDS

Fully connected to national high speed network, direct high speed links to all principal UK cities

HSUK

Average journey time reductions:

50%

No. of cities directly linked:

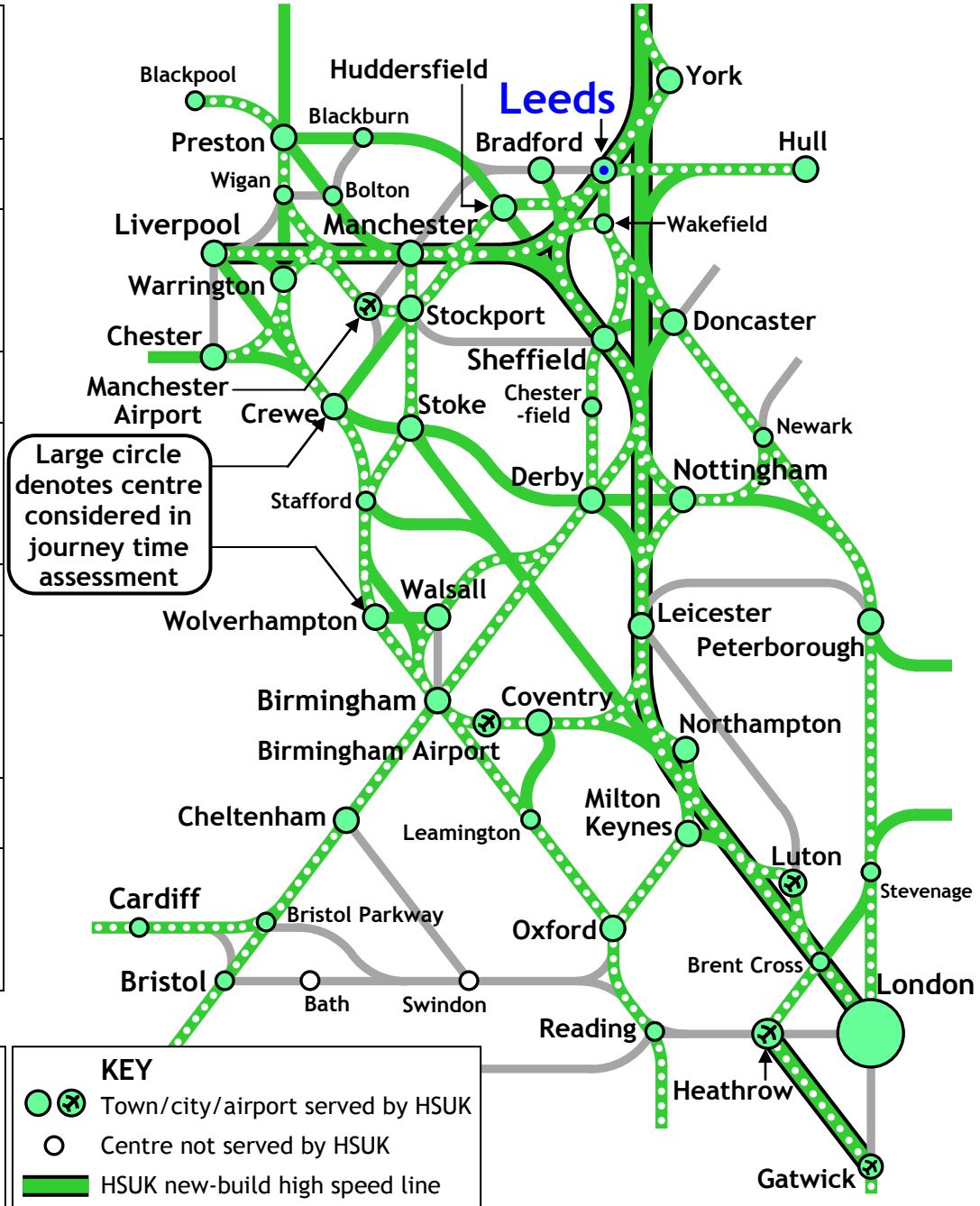
30

No. of journeys made faster:

26

No. of journeys made worse:

0



Leeds served by:
HSUK01,02,04,09
HSUK21,23,24,26
HSUK28,37
HSUK41,42
HSUK74
HSUK92
See Appendix A1

KEY

- Town/city/airport served by HSUK
- Centre not served by HSUK
- HSUK new-build high speed line
- HSUK services on existing line
- HSUK services from Leeds

www.highspeeduk.co.uk

HIGH SPEED UK
ROUTES & CITIES SERVED

Comparative Journey Times from **Leeds**

Quickest via:	HSUK	No change	HS2	Journey time adjusted for number of changes			HSUK		Existing		HS2		Journey made worse by HS2
Origin	Destination			HSUK	Existing	HS2	Journey time	No of changes	Journey time	No of changes	Journey time	No of changes	
LEEDS	Birmingham			64	118	76	64	0	118	0	76	0	
	B'ham Airport			73	166	64	73	0	146	1	54	0[B]	
	Bradford			19	19	19	19	0	19	0	19	0	
	Cheltenham			104	167	167	104	0	167	0	167	0	#
	Chester			54	158	158	54	0	138	1	138	1	
	Coventry			64	176	102	64	0	156	1	72	1[B]	
	Crewe			73	120	120	65	0	100	1	100	1	
	Derby			40	76	85	40	0	76	0	55	1[A]	#
	Doncaster			30	30	30	28	0	30	0	30	0	#
	Heathrow			103	246	124	103	0	206	2	104	1	
	Huddersfield			19	19	19	19	0	19	0	19	0	
	Hull			55	55	55	55	0	55	0	55	0	
	Leicester			44	144	88	44	0	124	1	68	1	
	Liverpool			46	86	86	46	0	86	0	86	0	
	London			77	133	81	77	0	133	0	81	0	
	Luton			113	230	230	93	1	190	2	190	2	
	Manchester			26	51	51	26	0	51	0	51	0	
	M'ch'r Airport			37	69	69	37	0	69	0	69	0	
	Milton Keynes			95	180	156	95	0	160	1	126	1[B]	
	Northampton			82	227	148	82	0	187	2	118	1[B]	
	Nottingham			42	118	72	42	0	118	0	52	1	
	Oxford			124	224	176	124	0	204	1	146	1[B]	
	Peterborough			85	85	85	85	0	85	0	85	0	
	Preston			70	104	104	70	0	104	0	104	0	
	Sheffield			19	41	25	19	0	41	0	25	0	
	Stockport			29	93	93	29	0	73	1	73	1	
	Stoke			63	124	124	63	0	104	1	104	1	#
	Walsall			69	184	184	69	0	164	1	164	1	#
	Warrington			39	82	82	39	0	82	0	82	0	
	Wolverhampton			82	159	139	82	0	139	1	109	1[B]	
	York			15	23	23	15	0	23	0	23	0	

A = Change introduced by HS2 B = Change via shuttle between Birmingham International and Interchange

= Journey made worse by intervention of HS2 (no adjustment made to existing journey time)

Generally, journey times adjusted by 20 minutes to allow for each change of trains. 30 minute adjustment applied for the special cases noted above ie A – extra change introduced by HS2 and B – shuttle connection between Birmingham International and Birmingham Interchange.