

# HS2 fails the High Speed Station Challenge

The enhancements in capacity and connectivity anticipated with the advent of new high speed lines will only prove worthwhile if the trains operating on these lines can be filled with passengers. To achieve this necessary commercial objective, it is vital that the trains operate from stations that are well connected to local rail services and other public transport, and are located close to the central business districts of the UK's principal cities. In inland cities, these stations should be 'through' stations rather than termini, to enable efficient operation of longer cross-country routes.

HS2's proposed stations perform poorly against these requirements. Its stations will either be a peripheral parkway (for Nottingham), termini (Birmingham, Manchester and Leeds) or existing central stations (Sheffield and Liverpool) on long spurs, remote from the high speed line. All these types are unsuitable for modern high-frequency, high-volume intercity operations.

HS2's proposed Curzon Street station in Birmingham offers an excellent example of poor station selection. This will be built on the site of the original terminus of the London & Birmingham Railway (precursor to the West Coast Main Line). Curzon Street *Mk1* opened in 1838, but it was found to be unsuitable for the operation of through services, both across the West Midlands, and nationwide. Curzon Street only survived until 1854, when it was superseded by a through station at New Street. A similar fate seems likely to befall HS2's Curzon Street *Mk2*.

HSUK's network has been designed to a radically different philosophy. Its trains will operate from central stations in all the primary cities, and the capacity of local routes will be enhanced to ensure conflict-free approaches for high speed services. This will also bring huge capacity benefits for local services.

The diagram opposite evaluates HS2's and HSUK's proposed station solutions in all primary cities. In all cases, HSUK offers the superior solution, and avoids the huge costs of developing (and disrupting) local networks to be 'HS2 ready'.

<b>Glasgow</b>		<b>Key</b>	
HSUK	Glasgow Central to be developed as HSUK station	HSUK	Yellow infill denotes optimised central station proposal
HS2	No proposal currently defined, viability of dedicated link to Scotland now in doubt	HS2	

<b>Edinburgh</b>	
HSUK	Edinburgh Waverley to be developed as HSUK station
HS2	No proposal currently defined, viability of dedicated link to Scotland now in doubt

<b>Newcastle</b>	
HSUK	HS platforms on new Northumbria Bridge, fully integrated with Newcastle Central
HS2	No proposal currently defined

<b>Leeds</b>	
HSUK	Leeds City Station developed as HSUK station with dedicated reserved route for through flows; approach routes to be reoriented to reduce platform congestion & double local capacity
HS2	Latest proposals show new terminus platforms for HS2 at Leeds City Station No significant local capacity increase

<b>Sheffield</b>	
HSUK	Sheffield Victoria reopened as HSUK city centre station fully integrated with existing local services to Sheffield Midland
HS2	Existing Sheffield Midland now proposed as HS2 station on long spur from HS2 trunk route

<b>Nottingham</b>	
HSUK	HSUK services to existing Nottingham Midland station
HS2	Toton, 9km from city centre, proposed as HS2 station

<b>Birmingham</b>	
HSUK	HSUK services to existing New St station to maintain integrity of UK intercity network. Major upgrades to existing approaches to enhance capacity
HS2	Curzon Street terminus isolated from existing network

<b>Liverpool</b>	
HSUK	HSUK services to existing Liverpool Lime St station
HS2	HS2 services to existing Liverpool Lime St station

<b>Manchester (M'ch'r)</b>	
HSUK	Underground through station at Piccadilly to allow E-W high speed & local services. Major increase in local capacity
HS2	New terminus platforms at Piccadilly, no significant increase in local capacity

<b>Heathrow (LHR)</b>	
HSUK	HSUK services to existing Heathrow Express stations, transformed into through system
HS2	Dedicated airport spur cancelled, no prospect of direct HS2 services

