



1824b

The coming of railways

It is possible that there were people in the crowds who attended the opening of the Liverpool and Manchester Railway on 15 September 1830 who had also watched the first barge cross the Barton Aqueduct on the Bridgewater Canal on 17 July 1761. To have done so was to have witnessed the beginning of the two great revolutions in transport whose impact was to be so profound, reaching far beyond Britain. Both of these transport innovations shared a common feature: they were driven by the trade that connected Liverpool and Manchester, and which was driving the growth of what were the two largest urban areas outside London.

The construction and opening of the Liverpool and Manchester Railway has become one of the landmarks of British history, so familiar that one can overlook that its *raison d'être* was simply to provide a more efficient and reliable means of communication than was available by either water or road transport between the two towns. The first survey of a railway

route between Liverpool and Manchester was carried out by William James in 1822, a land agent and surveyor who recognised the potential of running steam carriages on lines. Visionary that he was, the scheme stalled when James was imprisoned for bankruptcy. Following the establishment of the Liverpool and Manchester Railway Company in 1824, George Stephenson was appointed as surveyor. A new survey was organised, though one which closely followed James's route. Stephenson's talent was as a practical engineer – he was to provide the best solution to the problem of designing and operating a steam-powered locomotive on a railway line – not as a surveyor. His surveying skills were basic and the survey of the intended line he produced had a number of flaws, which were highlighted by opponents of the scheme in the subsequent parliamentary proceedings. The project stalled. Another survey was undertaken. This was largely carried out by Charles Blacker Vignoles on behalf of the new surveyors of the line, George and John Rennie. This survey

OPPOSITE. G. Stephenson, *A plan and section of an intended railway or tram-road from Liverpool to Manchester . . .* (1824) [BL]

MANCHESTER: MAPPING THE CITY



Detailed field boundaries are shown along much of the proposed railway line. Chat Moss clearly presented a major construction challenge.

(printed by James Wyld in 1826) met some of the objections to the route, the most vocal of which came from the canal interests. The bill was passed in 1826. Against expectations, the railway company reappointed Stephenson rather than allowing the Rennies to continue in control. It was Stephenson who was to lead the project to its completion.

Stephenson, like Brindley some 70 years before, had to provide solutions to the many problems encountered in constructing the line linking Manchester with Liverpool. Of these, the 'floating' of the track across Chat Moss is the best remembered, but there were other challenges that led to alter-

ations being made to the agreed route. Selecting and acquiring a suitable site for the Manchester terminus had proved difficult. In 1829, agreement was reached with the Mersey and Irwell Navigation Company to build a stone bridge across the Irwell to carry the railway into Manchester. The new terminus was to be located on Liverpool Road, adjacent to the busy Castlefield canal basin. Because the bridge had to be tall enough to allow easy passage of the Navigation Company's boats, the railway line entered Manchester on a viaduct rather than at street level. The additional building work was to add to the costs of the project. It also cost lives as during the construction

1824b



Ordnance Survey 5-foot [Liverpool Road Station] (c.1849) [Digital Archives] By this date Liverpool Road was only a goods station.

of the river bridge 12 workers were ‘accidentally drowned’, the first but not the last major loss of life in the building of the railways. The railway also required a bridge to be built in Water Street. This was noteworthy in that it made use of a newly designed type of cast-iron beam, the work of Eaton Hodgkinson and William Fairbairn, that was to become widely used in the construction of industrial and commercial buildings.

The railway station itself (now the oldest surviving one in the world) was a brick and stucco building facing Liverpool Road. It was architecturally unpretentious, giving no suggestion of how visually exciting this building type was to become in cities across the world. Indeed, the eventual inclusion of a sundial on the façade was a rather puzzling feature for a transport system that was already measuring journey times in minutes and which in a few years would be responsible for standardising the nation’s clocks. The facilities inside the building were basic and differentiated according to social class. Opposite the passenger side of the station was a railway warehouse – the first in the world – a huge brick behemoth, which in design and construction was greatly influenced by the canal warehouses.

Passenger traffic had been considered secondary to freight in planning the station, but the line soon proved that this could also be an important source of revenue. Such was to be the

speed of the railway revolution that other stations were soon opened in Manchester, stations that were to give greater attention to passengers. As early as 1844 these changes were to leave Liverpool Road operating only as a goods station. Additional land was purchased and over the coming decades more warehouses were built, which in their form and materials marked the rapid advances made in the design of railway warehouses. These warehouses can also be seen as representing the triumph of the railways over the canals. The early railway companies set out to compete with canals, but few expected that within a generation many of the canals would be taken over and even closed down by railway companies. This was not to be the fate of the Castlefield basin, but by the end of the nineteenth century it was to be crossed by a number of imperious railway viaducts which provided a dramatic visual metaphor of the result of the challenge thrown down by the Liverpool and Manchester Railway.

The Liverpool Road Goods station continued operating until the mid 1970s, throughout which time there was little alteration to the original station. This fortunate survival meant that the world’s first passenger station and its warehouse were able to become the star attractions of the Greater Manchester Museum of Science and Industry when it opened on the site in 1983.