“The six-inch survey of Lancashire & Yorkshire railway revision”

Rob Wheeler

Sheetlines, 113 (December 2018), pp25-33


This article is provided for personal, non-commercial use only. Please contact the Society regarding any other use of this work.

Published by

THE CHARLES CLOSE SOCIETY
for the Study of Ordnance Survey Maps

www.CharlesCloseSociety.org

The Charles Close Society was founded in 1980 to bring together all those with an interest in the maps and history of the Ordnance Survey of Great Britain and its counterparts in the island of Ireland. The Society takes its name from Colonel Sir Charles Arden-Close, OS Director General from 1911 to 1922, and initiator of many of the maps now sought after by collectors.

The Society publishes a wide range of books and booklets on historic OS map series and its journal, Sheetlines, is recognised internationally for its specialist articles on Ordnance Survey-related topics.
The Six-inch survey of Lancashire and Yorkshire and railway revision

Rob Wheeler

My article in Sheetlines 112 posed the question of when the two symbols for railways took on their later meaning of double-track and single-track. I drew attention to the difficulty of using as evidence later states to which railways may have been added at some unknown dates. Consideration of the background to this updating process suggests that the difficulty may be less than I had supposed.

The starting point is Richard Oliver’s account of railway revision at the one-inch scale: Colby saw railways as ‘national works’, sought authority to add them to the national map, and proceeded on the assumption that repeated approval in specific cases conceded the principle. The six-inch was essentially a local map and it seems questionable whether approval would have been given to revising it in the same way. However, six inches to the mile had been the scale of survey in Lancashire and Yorkshire, and it must have been much easier for a surveyor to go out armed with a copy of the six-inch, where such a sheet existed, and to add a new railway by graphical revision than to do the same direct on the one-inch. Furthermore it seems likely that there was already an established procedure whereby railways opened after the main survey for a six-inch sheet but before it appeared were added prior to publication: a pre-publication state of Yorks 289 is complete in most respects but lacks the South Yorkshire Railway. These pre-publication railway updates included changes consequent upon the construction of the railway: alterations to field boundaries or to rivers, private sidings and the industrial establishments they served, and such like. It would seem plausible that the post-publication surveying-in of railways should have proceeded in the same manner, at least until 1867. There may indeed have been no immediate intention to engrave them on the 6" plates but as time progressed the refreshing of worn detail became necessary – garden ornament received particular attention – and it was doubtless thought acceptable to engrave the new railways at this stage, perhaps some time after they had been surveyed.

If this understanding of the process is correct – and it is only a hypothesis, but one which appears to accord with what one sees on the maps – then new railways were surveyed not long after they opened: with certain exceptions, they normally appear on the one-inch maps within a couple of years. Furthermore, they were added in manuscript to six-inch sheets in the manner in which they were to be engraved, following the rules and conventions current at the time they were surveyed. It is of course possible that, when they came to be engraved,
different conventions were in force and changes could have been made at this time; however, such alterations have to be in the direction of greater generalisation, whereas the main changes to convention that we are interested were proceeding in the opposite direction. Thus, for most purposes we can treat the detail of a new railway as though it had been engraved a year or so after opening, even though in reality the engraver may not have been let loose on the plate until some years later.

The process of adding new railways was intelligence-led. Richard Oliver suggests newspaper report or Bradshaw’s guide may have been relied on; the Board of Trade inspection process (from 1840) seems another possibility. The first two sources only covered passenger lines; generally (and there is an exception that will be noted later) the revision process consisted of surveying in new routes of railway running from junction X with an existing line to junction Y with another existing line or to Terminus Z.

New railways often had sidings and connections to industrial establishments that were laid down at or close to the date when the public railway opened. These were duly surveyed. There might be new colliery connections too. At Ardsley, the Wakefield to Leeds line had a connection to a couple of coal pits north of Thorpe-on-the-Hill. This line (and the coal pits) were duly added to the map using the single-track symbol. It rather looks as though one of these pits had previously shipped its coal via a tramway that connected the Robin Hill Colliery to a staith on the River Calder. The connection to the tramway was added too, using the single-track symbol (figure 1). The surveyors stopped at the junction with the existing tramway, even though it is quite likely that the network at the end of the Robin Hood tramway had changed since the original survey.

The colliery branch and the continuation to the existing tramway were added to the one-inch too, using the standard railway symbol (figure 2). This provides confirmation that, in Yorkshire, the six-inch and one-inch railway additions were derived from the same survey.

![Figure 1: Robin Hood, from Yorks 233. The coal pit by the LH margin is approached from Ardsley by a line from the SW which seems not to join the line from the pit to the tramway.](image-url)
Figure 2 (top): Old Series 87NW state 5 showing line from Leeds & Wakefield Railway at Ardsley to the Robin Hood tramway.

Figure 3: Wakefield Kirkgate – early form, from Yorks 248.

Figure 4: Wakefield Kirkgate – late form.
Exceptionally there were updates which seem to address all the railways of a town rather than a particular new railway. Figures 3 and 4 show Wakefield in an early and a late state. The expansion of railway facilities is the most prominent change, and the Grain Warehouse south of the station may indeed be a railway warehouse; but the Stables north of the Hotel, and the Mills above Wakefield bridge have been updated because of their proximity. The road which formerly led from the ‘S’ of ‘PRIMROSE’ under the Wakefield & Goole line now appears to have been severed, as well as shifted south a little. The road which it formerly joined and which once led up to the Hotel has also been severed. Note the change in the meaning of the boundary.

This provides a useful working hypothesis for looking at railway depiction: outside major towns, railways may be assumed to have been drawn at the date of survey of the map or at about the date of opening, whichever is earlier. Armed with this we can tackle the question posed in the previous article: when or where did the change from the original use of the railway symbols to the modern use occur?

Almost immediately, we run into a problem: a very large number of the Yorkshire sheets have a survey date 1850-51, including all those sheets covering the Manchester to Sheffield line from which the Dunford Bridge example of that previous article was taken. Further down that line is the Thurgoland branch: figure 5 shows it diverging from the main line. It never carried passengers; at the north of the extract is the foot of a rope-worked incline at the top of which it became a single line. It had been shown on the one-inch as a tramway; yet here it is given the symbol for a pukka railway, presumably because it was (initially) double-track. Thus the six-inch surveyors here were working on the principle that the two symbols indicated double-track and single-track respectively; yet they were still endeavouring to depict sidings on a double-track railway using the double-track symbol; and the Dunford Bridge example suggests a degree of generalisation was permitted. This is an approach intermediate between the two I described in my previous article. It did not altogether prevent the use of single-track sidings, as figure 6 shows, though there seems to be a degree of embarrassment about the little siding west of the station building. There is nothing about Dunford Bridge which prevents this too being regarded as intermediate: indeed, the use of the narrower double-track symbol for sidings occurs both here and at the Thurgoland junction.

The boundary between this intermediate approach and the later one is too fuzzy to define rigidly: one sees a hankering for double-track sidings in Figure 4; and the exchange sidings at the Thurgoland junction retain the double-track symbol even at the 1891 resurvey. To make matters worse, the boundary between the early use of the symbols and the intermediate approach is also difficult to spot. The magnitude of the generalisation of trackwork seen at Patricroft is not found in Yorkshire so far as one can tell: without an independent source it is difficult to make a firm pronouncement. The one thing that unambiguously indicates the early interpretation is the use of the ladder symbol for a single-track railway. An example of this was drawn to my attention by a pencil note on a
copy of Lancs 31 to the effect that the railway at Caton was single-track. The railway in question was the ‘little’ North Western, opened in stages, this part being completed on 17 November 1849.\(^5\) It was presumably added after the sheet’s publication in 1847 but before the publication of Old Series 91NE in 1852. The ‘double-track’ symbol was used on the map, but it is known that this section remained single-track until 1889. Figure 7 shows Caton station, with the double-track symbol used for the running line and the single-track symbol used in what appears to be a detailed depiction of the goods yard: there is a fair degree of commonality with its depiction on the 1895 edition.\(^6\)

All this would be consistent with the early system having been retained until about 1850, albeit with the prohibition on use of the single-track symbol for sidings on a double-track railway having been dropped; it would also be consistent with the early system having been limited to Lancashire. This suggested it would be instructive to examine the few Yorkshire sheets published before 1850. One of these, Yorks 190, is remarkable for showing a railway under construction, or rather a railway where construction had been abandoned. Figure 8 shows that it had been added to the sheet after engraving: one can see a damaged spot height (63) that needs repair and the line of a road passing under the railway that has been inadequately deleted.

---


\(^6\) Lancs 30 uses the ladder symbol for the connecting line between the two stations at Lancaster, a line which was never doubled.
Figure 7 (above): Caton station, from Lancs 31.

Figure 8 (left): Tadcaster, from Yorks 190

Figure 9 (lower left): Abandoned line at Tadcaster.

Figure 10 (below): Cover of pre-publication Yorks 289.
This section has a ladder symbol for the track, but the ‘rungs’ are mere dots. The
earthworks continue to a bridge over the River Wharfe and then a section of
“Proposed Line” (figure 9) where one can see (dotted) what is perhaps the outer
boundary of the area occupied by the navvies. A track going across the cutting
has been given temporary fences. Again one can see former fences which have
not been properly deleted. The rules against showing temporary works were no
doubt already in place; but here work had been abandoned and the earthworks
might remain for decades. They can still be seen on the 1894 edition. None of this
tells us whether the early or the intermediate rules were being followed, but it is
probably a fair assumption that the former never extended beyond Lancashire.

Railways on the Yorkshire six-inch are also of interest for what they show of
signalling practice, notably electric telegraphs and signal posts, but one also
encounters Signal Lamp (presumably Signal Post is understood to imply a board
or arm) and Pointsmen’s Box. What is odd about these features is their variability:
some lines have numerous Signal Posts, some have occasional ones, many have
none. On Yorks 289, for example, the Midland line has electric telegraph but no
Signal Posts; the South Yorkshire has Signal Posts but no telegraph. That the SYR
had no telegraph is almost certainly correct, but was the Midland really relying on
hand signals after investing in the telegraph? Or were the surveyors doing the
initial survey disinclined to show signal posts whereas the men surveying in the
SYR a few years later were sticklers for them? To take another example, on Sheet
12 the South Durham and Lancashire Union Railway, which was opened in 1861
after the sheets were published, has numerous Signal Posts around Bowes and to
its east, but nothing west of Bowes. This seems less likely to represent variation
in surveying practice. Is it possible that the railway was surveyed before it was
opened, with permanent way in place but the signal installation still in progress?
Nor is it only Signal Posts that seem to be variable: before it opened, the (little)
North Western was encountering problems with the type of telegraph installed 7
but one looks in vain for any signs of a telegraph on the six-inch.

I alluded earlier to an incomplete state of Yorks 289. What is perhaps unusual
about it is that it has been coloured and dissected by WT Hansbrow (figure 10).
His address implies this was done no later than 1862. (The typed label must be
later). Bound with it is an index showing the Yorkshire sheets that have been
published to date. The date in the title is left blank but from the sheets marked as
published it seems to have been printed in 1854 and marked up in ink with
sheets published later that year (figure 11). Incidentally, both forms of cross
indicate sheets published, the St George’s cross being used for those not filled
(with land) to the neat line. It would not seem unreasonable to suppose that this
was done in 1854 when the index was current.

On that index a block of 15 or 16 sheets – one may perhaps have been added
later – is tinted red in a professional manner. Sheet 289 is the highest number in
the block, which is perhaps why it has the index sheet included. Only one of
those sheets is marked on the index as having been published. Does that mean

7 Baughan p.93.
that, of this block of maps, no fewer than 14 were in an incomplete state?

The name at the bottom of the label reads ‘Newman Barnsley’. The Newmans had been Barnsley solicitors since 1790; as a partnership the firm continues today. Edward Newman was agent to Lord Fitzwilliam and was politically active in the Whig interest. He was a member of the Geological and Polytechnic Society of the West Riding, which is perhaps why the Tankerville Fault is has been drawn on the map. He was also involved with Turnpike trusts and railway projects. Was such a man able to obtain incomplete copies in advance of publication of not just one local sheet but a dozen or so? Do any of our members happen to have any of the other fifteen sheets in the block in a similar cover?

I set out in this paper to answer a question I posed in Sheetlines 112. I seem to have floated more questions than I have answered. Nevertheless, it seems to me that we are closer to understanding the Lancs and Yorks six-inch. There is an analogy with the one-inch Old Series. Back in the 1960s understanding of this was murky. Then came the David & Charles reprints with introductions by JB Harley. The purists lament the choice of late states for these reproductions; though one can argue in their favour that from a late state one can mentally subtract the railways and get a good approximation to an early state; one certainly could not do the opposite. Then came the Margary reprints showing early states. Finally we have Roger Hellyer’s cartobibliography. Between them, these sources convey all the topographical information that could be extracted from a massive collection of all the states of all the sheets.

I suggest that, so far as the six-inch survey is concerned, the copies on the NLS website offer the equivalent of the David & Charles reproductions. Most of them are Record Map specimens, retained by OS when the First edition was superseded and therefore represent the final state of the plate. Many of them show railways which were only opened after the date of survey. Evidently they have been added. They (with associated detail) are the only type of addition I have noticed; analogy with Hampshire might suggest that revised administrative boundaries, along with detail relevant to mereing, might also be shown here and there; but I have not seen any instances in Lancashire & Yorkshire. Thus, by mentally subtracting the added railways, we can see what the original survey looked like – except in the immediate vicinity of these new railways. We already have 98% of the information that a complete collection of all the states of all the sheets would give us.

To obtain that last 2%, we would need images of each sheet in its earliest known state. Following the one-inch analogy, pressing ahead with this is more important than a cartobibliography. However, I suspect the analogy breaks down at this point, not least because quite a few sheets have no railways and are unlikely ever to have been updated. Leaving these on one side, and taking a sample of six sheets that did have railways and where I was able to compare the NLS image against an earlyish copy, on three of the six, the NLS sheet had no

---

8 Except for the couple of sheets that benefited from general revision, and the addition of changes in the vicinity of new railways made up to about 1862.
railways opened after the date of survey and showed no evidence of updating. On one sheet a railway (opened 1862) was on the NLS sheet but not the early one. On two sheets there were railways on the NLS copy and on the early copy which had opened shortly after publication. They might perhaps have been engraved before they opened, so the existence of a state lacking them is an open question. What I deduce from this is that only for a certain proportion of sheets is there any value in looking for an early state; and for quite a significant set of those, finding the earliest state may be a challenge. Without attempting any sort of serious investigation, I have found two Yorkshire states earlier than the CUL copies, presumed to be copyright deposit: one was the pre-publication state mentioned earlier, but another was mounted as part of a composite with no indication of date, and no sign that it was other than a normal sales copy. Richard Oliver has observed that there was no automatic process for copyright deposit at this date; the copyright libraries needed to request the items and there may have been a delay before they got round to making the request.

Thus my main conclusion is that we need a cartobibliography of the Lancashire & Yorkshire six-inch. If we eschewed any attempt to track every change in marginalia but concentrated on topographical change associated with railways, it could probably be done as a collaborative process by those of our members who use the six-inch.

![Figure 11: Index showing state of publication of Yorks six-inch.](image)

Figures 1 & 4-9 are reproduced by kind permission of National Library of Scotland, figure 2 by kind permission of Alexander Turnbull Library, National Library of NZ, MapColl 211cba/1805-1862/Acc.38633.

---

9 Personal communication.