

List of Permanent Way Drawings at the National Railway Museum, York

Last updated 13 November 2015

Introduction

This is oldpway's list of drawings of permanent way that are at the National Railway Museum in York.

This list has been compiled by inspection of NRM catalogues and lists. If anyone can add to this list please contact oldpway.

The scope of this list is the same as the scope of oldpway, as explained in oldpway faqs. So it includes drawings showing the design and appearance of permanent way and related equipment, but it does not include drawings of track layouts at specific locations.

For example, it includes drawings of plain line, switches and crossings, turnouts, scissor crossings, trackbed formation, turntables, traversers, buffer stops, track tools and loading gauges. But it does not include station and junction layouts, except special trackwork like the Newcastle diamonds.

Items

Permanent way drawings are known to exist within the following items in the NRM collection. Each of these is detailed in following sections of this list.

- 1) NRM item number 2009-7071
"Collection of architectural plans and civil engineering drawings of the North Eastern Railway and London & North Eastern Railway companies".
This includes some "Standard Railway Equipment" drawings of LNER/SR standard permanent way used from 1924 onwards.
- 2) NRM library book E3/86X
"Railway Engineers Association Standardisation of Permanent Way Rail Joints".
This is a set of the 53 drawings of rail joints, which accompanied a report dated 2 June 1905 on standardisation of rail joints.
- 3) NRM library has holdings of International Railway Congress Proceedings and Bulletins.
Some of these books include permanent way drawings.
- 4) North Eastern Railway 1890s book of 90lbs permanent way standard drawings. This book of over 50 drawings was found in the British Rail Eastern Region Chief Civil Engineer's Department in Hudson House York and was taken to and deposited at the NRM library by Dennis Hebditch and Michael Garth some time between 1975 and 1984. But the NRM has no audit trail for it and cannot locate it at present. It is probably in the uncatalogued backlog of the NRM archive.

NER/LNER Civil Engineering Drawings

NRM item number 2009-7071 is "Collection of architectural plans and civil engineering drawings of the North Eastern Railway and London & North Eastern Railway companies".

This is a collection of about 3,500 plans which came to the NRM in about 1985 from the British Rail Eastern Region York offices of the Architects and Civil Engineering departments. They probably came from the Hudson House plan room.

The collection has reference code GB 0756 2009-7071.

It is described in the (pdf) guide on the NRM website at:

<http://www.nrm.org.uk/~media/Files/NRM/PDF/archiveslists2012/railwaycompanyworks/Introduction%20to%20NER%20%20LNER%20Civil%20Engineering%20drawing%20list.pdf>

All drawings are detailed in the (pdf, 364 page) drawings list on the NRM website at:

<http://www.nrm.org.uk/~media/Files/NRM/PDF/archiveslists2012/railwaycompanyworks/NER-LNER-Engineering-drawing-list.pdf>

The following details are extracted from that drawings list. The last column (C) is a condition code.

Box	Type	Ref	Ref2	Title	Description	Date	Scale	Material	C
45	Equipment	S14 68/1	211	Knaresborough Coal Depots	Proposed Turntable	1892/06/02	Various	Wax Linen	2
45	Equipment	S14 67/1		Knaresborough Coal Depots	Traverser	1892/05/05	Various	Wax Linen	2
255	Equipment	2395		Darlington New Per:Way Shops - Park Lane. Ground Plan	Half Plan of Turntable and Building	undated	8 feet to 1 inch	Linen backed	3
246	Equipment		<i>(usually no.4)</i>	Standard Railway Equipment – Permanent Way. Common Chair S.I. 46 LB	Plan, Elevation & End Elevation, plus sections	undated	not quoted	Print paper	4
246	Equipment	No. 8		Standard Railway Equipment – Permanent Way. "A" Undercut Switches. 95R. B.S. Rail. No. 8	Plan, Part Elevation & Plan at End of Switch, Sections	undated	various	Print paper	2
246	Equipment	No. 9		Standard Railway Equipment – Permanent Way. "B" Undercut Switches. 95R. B.S. Rail. No. 9	Plan, Part Elevation & Plan at End of Switch, Sections	undated	various	Print paper	2
246	Equipment	No. 10		Standard Railway Equipment – Permanent Way. "C" Undercut Switches. 95R. B.S. Rail. No. 10	Plan, Part Elevation & Plan at End of Switch, Sections	undated	various	Print paper	2
246	Equipment	No. 11		Standard Railway Equipment – Permanent Way. "D" Undercut Switches. 95R. B.S. Rail. No. 11	Plan, Part Elevation & Plan at End of Switch, Sections	1956 retraced	various	Print paper	2
246	Equipment	No. 13		Standard Railway Equipment – Permanent Way. "A" Straightcut Switches. 95R. B.S. Rail. No. 13	Plan, Part Elevation & Plan at End of Switch, Sections	1958 retraced	various	Print paper	2
246	Equipment	No. 14		Standard Railway Equipment – Permanent Way. "B" Straightcut Switches. 95R. B.S. Rail. No. 14	Plan, Part Elevation & Plan at End of Switch, Sections	1958 retraced	various	Print paper	2

Box	Type	Ref	Ref2	Title	Description	Date	Scale	Material	C
246	Equipment	No. 14.S.R.12		Standard Railway Equipment – Permanent Way. Southern Railway. Switch Checking, A & B Straightcut Switches No. 14.S.R.12	Plans	undated	3/4 inch to 1 foot	Print paper	2
246	Equipment	No. 15		Standard Railway Equipment – Permanent Way. "C" Straightcut Switches. 95R. B.S. Rail. No. 15	Plan, Part Elevation & Plan at End of Switch, Sections	undated	various	Print paper	2
246	Equipment	No. 15.S.R.2		Standard Railway Equipment – Permanent Way. Southern Railway. Switch Checking (Type Drawing) No.15 S.R.2	Plan & Sections	1926/08	3/4 inch to 1 foot	Print paper	2
246	Equipment	No. 16		Standard Railway Equipment – Permanent Way. "D" Straightcut Switches. 95R. B.S. Rail. No. 16	Plan, Part Elevation & Plan at End of Switch, Sections	1958 retraced	various	Print paper	2
246	Equipment	No. 16.S.R.13		Standard Railway Equipment – Permanent Way. Southern Railway. Switch Checking, D & E Straightcut Switches No. 16.S.R.13	Plans	undated	1/2 inch to 1 foot	Heavy print paper	2
246	Equipment	No. 17		Standard Railway Equipment – Permanent Way. "E" Straightcut Switches. 95R. B.S. Rail. No. 17	Plan, Part Elevation & Plan at End of Switch, Sections	undated	various	Print paper	2
246	Equipment	No. 18		Standard Railway Equipment – Permanent Way. Chairs for Switches. No. 18	Elevation & Plan, plus details of Key Jaw	undated	various	Print paper	2
246	Equipment	No. 19		Standard Railway Equipment – Permanent Way. Details of Fittings for Switches. No. 19	Miscellaneous Details	undated	Half full size	Print paper	2

Box	Type	Ref	Ref2	Title	Description	Date	Scale	Material	C
246	Equipment	No.28A		Standard Railway Equipment – Permanent Way. Common and Obtuse Angle Crossings 1 in 3 1/2. 95R. B.S. Rail. No. 28A	Plan and Elevation of Points, plus Rail details	undated	various	Print paper	2
246	Equipment	No. 31(1)		Standard Railway Equipment – Permanent Way. Common Crossings 1 in 7 & 1 in 7 1/2. 95R. B.S. Rail. No. 31(1)	Plans and Elevation of Points, plus Rail details and sections	undated	various	Print paper	2
246	Equipment	No. 32(1)		Standard Railway Equipment – Permanent Way. Common Crossings 1 in 8. 95R. B.S. Rail. No. 32(1)	Plan and Elevation of Points, plus Rail details and sections	undated	various	Print paper	2
246	Equipment	No. 33. SR3(1)		Standard Railway Equipment – Permanent Way. Common Crossings 1 in 8 1/2, 1 in 9 1/2 & 1 in 10 1/2. No. 33. SR3(1)	Plans and Elevations of Points, plus Rail details and sections	undated	various	Print paper	2
246	Equipment	No. 33(1)		Standard Railway Equipment – Permanent Way. Common Crossings 1 in 9 & 1 in 10. 95R. B.S. Rail. No. 33(1)	Plan and Elevation of Points, plus Rail details and sections	undated	various	Print paper	2
246	Equipment	No. 33. SR7(1)		Standard Railway Equipment – Permanent Way. Common Crossings 1 in 11 & 1 in 11 1/2. No. 33. SR7(1)	Plans and Elevations of Points, plus Rail details and sections	undated	various	Print paper	2
246	Equipment	No. 33B		Standard Railway Equipment – Permanent Way. Chairs for 1 in 11 Common Crossing 95R. B.S. Rail No.33B	Plans & Elevations	undated	not quoted	Print paper	2
246	Equipment	No. 34A. SR(1)		Standard Railway Equipment – Permanent Way. Common Crossings 1 in 12. No. 34A. SR(1)	Plans and Elevations of Points, plus Rail details and sections	retraced 1959	various	Print paper	2

Box	Type	Ref	Ref2	Title	Description	Date	Scale	Material	C
246	Equipment	No. 34. SR6(1)		Standard Railway Equipment – Permanent Way. Common Crossings 1 in 13,14,15. No. 34.SR6(1)	Plans and Elevations of Points, plus Rail details and sections	retraced 1959	various	Print paper	2
246	Equipment	No. 34B		Standard Railway Equipment – Permanent Way. Chairs for 1 in 14 Common Crossing 95R. B.S. Rail No.34B	Plans & Elevations	undated	3 inches to 1 foot	Print paper	2
246	Equipment	No. 35. SR1(1)		Standard Railway Equipment – Permanent Way. Common Crossings 1 in 17,18 & 20. No. 35.SR1(1)	Plans and Elevations of Points, plus Rail details and sections	undated	various	Print paper	2
246	Equipment	No. 36		Standard Railway Equipment – Permanent Way. Chairs for Common Crossing 95R. B.S. Rail No.36	Plans & Elevations	undated	3 inches to 1 foot	Print paper	2
246	Equipment	No. 36A		Standard Railway Equipment – Permanent Way. Chairs for Common and Obtuse Angle Crossings 1 in 1 1/2 to 1 in 3 1/2. 95R. B.S. Rail No.36A	Plans & Elevations	undated	3 inches to 1 foot	Heavy print paper	2
246	Equipment	No. 37		Standard Railway Equipment – Permanent Way. Chairs for Common Crossings 95R. B.S. Rail No.37	Plans & Elevations	undated	3 inches to 1 foot	Print paper	2
246	Equipment	No. 38		Standard Railway Equipment – Permanent Way. Chairs for Common Crossing 95R. B.S. Rail No.38	Plans & Elevations	retraced 1946/	3 inches to 1 foot	Print paper	2
246	Equipment	No. 38E		Standard Railway Equipment – Permanent Way. 95R. B.S. Rail & 85R B.S. Rail - Tandem Turnouts. No.38E	Diagramatic Plans	undated	not quoted	Print paper	3

Box	Type	Ref	Ref2	Title	Description	Date	Scale	Material	C
246	Equipment	No. 47		Standard Railway Equipment – Permanent Way. M.I. Chair. 43LB. 95R.B.S. Rail. No.47	Plan, Elevations & Sections	undated	not quoted	Print paper	3
246	Equipment	No. 47A		Standard Railway Equipment – Permanent Way. S.I.N. & S.I.O. Chairs. 95R.B.S. Rail. No.47A	Plan, Elevations & Sections	undated	not quoted	Print paper	3
246	Equipment		<i>(usually no.110)</i>	Standard Railway Equipment – Permanent Way. Raised Check Chair for Bridges & Viaducts. 95R. B.S. Rail.	Elevation & Half Elevation, Plan and Section	undated	not quoted	Print paper	2
246	Equipment	PW.447z		S. Ry. Amended Planing of tips of 95lbs. B.S. Switch Tongues	Plan, Side Elevation & Section	1960/11/01	Full size	Print paper	2
216	Bridge	64 YYK 92		Goole Swing Bridge. Details of Special End Raised Check Chair	Front Elevation, End Elevation & Plan	1964/09/17	Full Size	Print paper	3
256	Equipment	B.R. 906/12	RE/PW/242 .A	BS110A Adjustment Switches Baseplate. Details of Components using 'Permaglass' Base	Plans and Section	1969/01/31	Half full size	Print paper	2
25	Permanent Way	72 431/1	1680	Corrosion Tests on Chromium and Ordinary Steel	Graph of Test Pieces immersed in 8 to 1 solution of Sulphuric Acid	1922/03/21	None	Graph Paper	3
112	Gauges	S69 106/10		NER Standard Load Gauge	Diagram	1909/01/06	2ft = 1 in	Wax Linen	2
30	Gauges	47 CEB 1	None	LNER Rolling Stock Gauge	Diagram	1947/08/08	none	Paper	3
30	Gauges	BD/ 87/ 50	None	Standard Load Gauges and Structure Gauge	Ex-Midland Railway Load Gauge (Standard 171)	no date	none	Paper	4
30	Gauges	Section 8 Plat	None	Load Gauges Operative on Lines in LM&SR Co's Maintenance	Table	none	none	Linen Paper	2
30	Gauges	66 YP 326A	None	Ministry of Transport Desirable Structure Gauge and Platform Clearances	Table (Revised and amended)	1967/04/19	none	Paper	2

Box	Type	Ref	Ref2	Title	Description	Date	Scale	Material	C
25	Permanent Way	46 YP 210	G 1181; 1666	Darlington: Stockton and Darlington Crossing	Track details, WJN Design	no date (1946 by ref no.)	none	Wax Linen	2
25	Permanent Way	55 YP 163	PWR 26	Darlington: Stockton and Darlington Crossing	Renewal of Permanent Way, layout sheet 1 of 2	1956/02/06	8' to 1"	Wax Linen	2
25	Permanent Way	55 YP 163	PWR 26	Darlington: Stockton and Darlington Crossing	Renewal of Permanent Way, Details sheet 2 of 2	1956/02/06	Various	Wax Linen	2
25	Permanent Way	32 EB 11	G 1199; 1680	LNER NE Area: Speed restriction Plate	Sheet 1 of 12	1932/05/12	Various	Tracing Paper	4
25	Permanent Way	32 EB 11	G 1199; 1680	LNER NE Area: Speed restriction Plate	Sheet 2 of 12	1932/05/12	Various	Tracing Paper	4
25	Permanent Way	32 EB 11	G 1199; 1680	LNER NE Area: Speed restriction Plate	Sheet 3 of 12	1932/05/12	Various	Tracing Paper	4
25	Permanent Way	32 EB 11	G 1199; 1680	LNER NE Area: Speed restriction Plate	Sheet 4 of 12	1932/05/12	Various	Tracing Paper	4
25	Permanent Way	32 EB 11	G 1199; 1680	LNER NE Area: Speed restriction Plate	Sheet 5 of 12	1932/05/12	Various	Tracing Paper	4
25	Permanent Way	32 EB 11	G 1199; 1680	LNER NE Area: Speed restriction Plate	Sheet 6 of 12	1932/05/12	Various	Tracing Paper	4
25	Permanent Way	32 EB 11	G 1199; 1680	LNER NE Area: Speed restriction Plate	Sheet 7 of 12	1932/05/12	Various	Tracing Paper	4
25	Permanent Way	32 EB 11	G 1199; 1680	LNER NE Area: Speed restriction Plate	Sheet 8 of 12	1932/05/12	Various	Tracing Paper	4
25	Permanent Way	32 EB 11	G 1199; 1680	LNER NE Area: Speed restriction Plate	Sheet 9 of 12	1932/05/12	Various	Tracing Paper	4
25	Permanent Way	32 EB 11	G 1199; 1680	LNER NE Area: Speed restriction Plate	Sheet 10 of 12	1932/05/12	Various	Tracing Paper	4
25	Permanent Way	32 EB 11	G 1199; 1680	LNER NE Area: Speed restriction Plate	Sheet 11 of 12	1932/05/12	Various	Tracing Paper	4
25	Permanent Way	32 EB 11	G 1199; 1680	LNER NE Area: Speed restriction Plate	Sheet 12 of 12	1932/05/12	Various	Tracing Paper	4
25	Permanent Way	33 EP 51	G 1199; 1680	LNER NE Area: C&T Indicator Standard Lamp	Diagrams	1933/03/13	3" = 1'	Wax Linen	2

Box	Type	Ref	Ref2	Title	Description	Date	Scale	Material	C
25	Permanent Way	36 EP 100	G 1199; 1680	Speed Restrictions	Title page of Report to Committee	1936, April	none	Wax Linen	2
25	Permanent Way	36 EP 100	1680	Speed Restrictions in Relation to Curvature of Track	Graph	no date (1936 by ref no.)	none	Wax Linen	2
25	Permanent Way	36 EP 177	G 1199; 1680	LNER NE Area: Warning Board and C&T Indicators	Diagrams	1936/12/08	1 1/2" to 1 foot	Wax Linen	2
25	Permanent Way	37 EP 186	G 1199; 1680	LNER NE Area: Speed Restrictions Indicator for 'C' Lamp Post	Diagrams	1937/11/05	Various	Wax Linen	2
25	Permanent Way	38 EP 174	G 1199; 1680	LNER NE Area: Speed Restriction Lamp	Diagrams	1938/11/11	Various	Wax Linen	2
25	Permanent Way	43 YP 243	1923	LNER CE Dept: Renewal of Way Items	Signs	1943, July	none	Wax Linen	2

Railway Engineers Association Standardisation of Permanent Way Rail Joints

NRM library book E3/86X is "Railway Engineers Association Standardisation of Permanent Way Rail Joints".

This is a set of the 53 drawings of rail joints, which accompanied a report dated 2 June 1905 on standardisation of rail joints.

It shows rail joints in use by British and Irish railways in 1905. It also includes various joints suggested by inventors and the British Standard joints suggested in May 1904 by the Engineering Standards Committee to suit the newly designed British Standard rails.

Oldpway has copies of the 1905 report and all 53 drawings. These were put on-line on oldpway in November 2015.

The 53 drawings are.

Page	Title of drawing
1	List of drawings.
2	Summary table of Dimensions from all drawings.
3	Great Central Railway. Details of Permanent Way.
4	Great Eastern Railway. Details of Joint and Fastenings for 95lbs Bullheaded Steel rails.
5	Great Northern Railway. Deep fishplate for 80lb rail 1875.
6	Great Northern Railway. Joint in 82lbs GN rail 1887.
7	Great Northern Railway. Joint in 85lbs rail 1892.
8	Great Northern Railway. Joint in 96lbs rail 1903.
9	Great Northern Railway. Joint proposed in 95 or 100lbs BS rail 1906.

Page	Title of drawing
10	Great Northern Railway. Types of fishplates in general use since 1860.
11	Index of joints put forward by inventors.
12	Hart's Patent Joint for 95lbs rail.
13	Patent Fishrail "Stossfangchienne" for 85lbs GN rail 1898.
14	Wright's patent joint for 85lbs GN rail.
15	GNR Suggested angle fishplate for 95lbs BS rail.
16	Bonzano's Patent joint for 95lbs BS rail.
17	Bonzano joint adapted to a 100lbs Bullheaded BS section rail. Burt, Boulton & Haywood's Patent Rail Joint.
18	Great Western Railway. Details of Permanent way for main lines. Bull head steel rail section 00 97.5 lbs/yd.
19	Hull and Barnsley Railway. Permanent way rail joint.
20	Lancashire and Yorkshire Railway. Details of permanent way rail joints now in use for 86lbs rail.
21	Lancashire and Yorkshire Railway. Details of permanent way rail joints intended to be used for 86lbs rail.
22	Lancashire and Yorkshire Railway. Details of permanent way rail joints for 95lbs rail.
23	Holme, Hart and Watson's Patent rail joint.
24	London and North Western Railway. Details of Permanent way 1905 BS section of rail 95lbs/yard.
25	London and North Western Railway. Types of fishplates in general use since 1853.
26	London and South Western Railway. Joint for 90lbs BH Rails.
27	London and South Western Railway. Bridge Fishplates for 90lbs rails.
28	London, Brighton and South Coast Railway. Details of permanent way.
29	London, Tilbury and Southend Railway. Permanent way standard rail joint.
30	Midland Railway. Permanent Way, 100lbs pattern.
31	Midland Railway. Joint as proposed BS Section 100.
32	North Eastern Railway. Standard Rail Joint and Fastenings.
33	North Eastern Railway. Experimental Supported Rail Joint.
34	North Eastern Railway. Experimental Rail Joints with Special Chair.
35	North Staffordshire Railway. Permanent way rail joint.
36	South Eastern and Chatham Railway. Details of Permanent way for main lines. South Eastern Section.
37	South Eastern and Chatham Railway. Details of Permanent way for main lines. Chatham Section.

Page	Title of drawing
38	Caledonian Railway. Permanent Way. Standard Joint for 90lb rail.
39	Glasgow and South Western Railway. Details of rail joint.
40	Great North of Scotland Railway. Permanent way rail joint.
41	The Highland Railway Company. Standard Rail joint.
42	The Highland Railway Company. Supported Rail joint.
43	North British Railway. Drawing of Permanent way.
44	North British Railway. Drawing of special joint chairs.
45	North British Railway. Drawing of special joint-chair.
46	Great Northern Railway (Ireland). 90lbs steel bullhead permanent way. Mills's system B of strengthening rail joints with longitudinal timber.
47	Great Northern Railway (Ireland). 90lbs steel bullhead permanent way. Mills's system A of strengthening rail joints with longitudinal timbers.
48	Great Northern Railway (Ireland). 90lbs steel bullhead permanent way.
49	Great Southern and Western Railway (Ireland). 87lb BH permanent way.
50	Midland Great Western Railway of Ireland. Joint in 95lbs Flange rail.
51	Midland Railway Northern Counties Committee. Standard Bullheaded rail joint.
52	Engineering Standards Committee. Fishplates and Fishbolts for 85lbs 'BS' to 100lbs 'BS' rails. Suggested May 1904.