

THE TRAMWAYS OF GLOUCESTERSHIRE

A BRIEF HISTORY

A. E. FIELDER

INTRODUCTION

The first tramways were introduced into Britain in 1860 by George Francis Train, but were generally short lived because of the step-rail which, when badly laid, projected above the level of the road surface. These rails provided a wide, flat surface a little below road level which could be used by ordinary traffic and the stepped up part of the rail to accommodate the flanged wheels of the tramcar.

The first applications to Parliament for authority to lay tramways were passed in the 1860's using the grooved rail and this was followed by the 1870 Tramways Act which was passed in an attempt by the Board of Trade to both encourage and control tramway promotion: although this saved the expense of each Company promoting its own Act and having it debated in Parliament, clause by clause, it did have its disadvantages. The local authority still had the right to veto lines and to compulsorily purchase the undertaking after 21 years but it did not give the local authority powers to operate tramways themselves. The tramway company was required to build the line within two years and to maintain the road for 18 inches on either side of the tracks and to pay full rates.

Tramway progress was further encouraged by the passing of the "Use of Mechanical Power on Tramways Act, 1879" permitting the general use of steam traction. Prior to this, mechanical traction had only been allowed experimentally on a short term licence from the Board of Trade.

Finally came the Light Railways Act of 1896. This was administered by the Board of Trade and Light Railway Commissioners and saved the necessity of obtaining Parliamentary approval. The Company now had five years

to build the line and only paid one-quarter rates. This Act stimulated tramway promotion and the majority of powers sought after 1896 were obtained under this Act.

BRISTOL TRAMWAYS CO. LTD.

The first proposals to construct tramways in the City were made in 1865, but it was not until 1871 that the Corporation obtained the necessary powers and commenced to lay standard gauge tracks between the top of Colston Street and Redland. Since the Corporation had no powers to actually operate trams the Bristol Tramways Co. Ltd. was formed in 1874 to lease and work the line. The Company also obtained powers to construct lines and the first public service commenced on 9th. August, 1875. All lines, apart from the Redland route were owned by the Company and this was purchased from the Corporation in 1882.

The Company's general manager from 1875 to 1882 was Mr J. Clifton Robinson who was to return to the City in the 1890's and play an important part in the development of the electric tramways.

Rolling stock consisted of some 70 cars of mainly double-deck, open top construction operating from six depots. In 1877 experiments were tried with steam traction and in 1880 eight steam engines were hired and operated from Whitson Street depot and were used on the Horfield and Redland routes. They do not appear to have been too successful since they were returned to the manufacturers in the following year. The trailer cars pulled by the steam engines had canopies over the top deck and were therefore the only trams with covered upper decks to operate in Gloucestershire. The canopies were removed on the cessation of steam traction.

On the 1st October 1887, the Company merged with the Bristol Cab. Co. Ltd to form the Bristol Tramways & Carriage Co. Ltd.

BRISTOL TRAMWAYS & CARRIAGE CO. LTD.

This Company continued to expand the horse tram system, even opening new lines for horse traction after the commencement of electric tramways in other parts of the City. In 1893 the City's central area was greatly improved by the replacement of the Drawbridge across the inner harbour by a permanent bridge and the inner dock filled in to form Colston Avenue and the Tramways Centre.

Route mileage now totalled some 17 miles operated by approximately 100 cars and 500 horses from the six existing depots and one new one at Ashley Down.

By 1890, the growing area of Kingswood was needing better communications with Bristol but the hills were considered too steep for horse trams whilst there was insufficient traffic for a cable tramway. The Company was now, with the Gloucester Tramways Co., a subsidiary of the Imperial Tramways Company (Formed 1878) and whose managing director was the J. Clifton Robinson mentioned earlier. It was his influence, with that of Mr George White, managing director of the Bristol Tramways, that persuaded the Company to obtain powers to construct the line to Kingswood as an electric tramway. It was a bold decision to take since at this time (1891) there were only a handful of electric tramways in the country, none of which operated under city conditions. Electrification commenced in 1895 and public services were commenced on the 14th October of that year between Old Market and Kingswood.

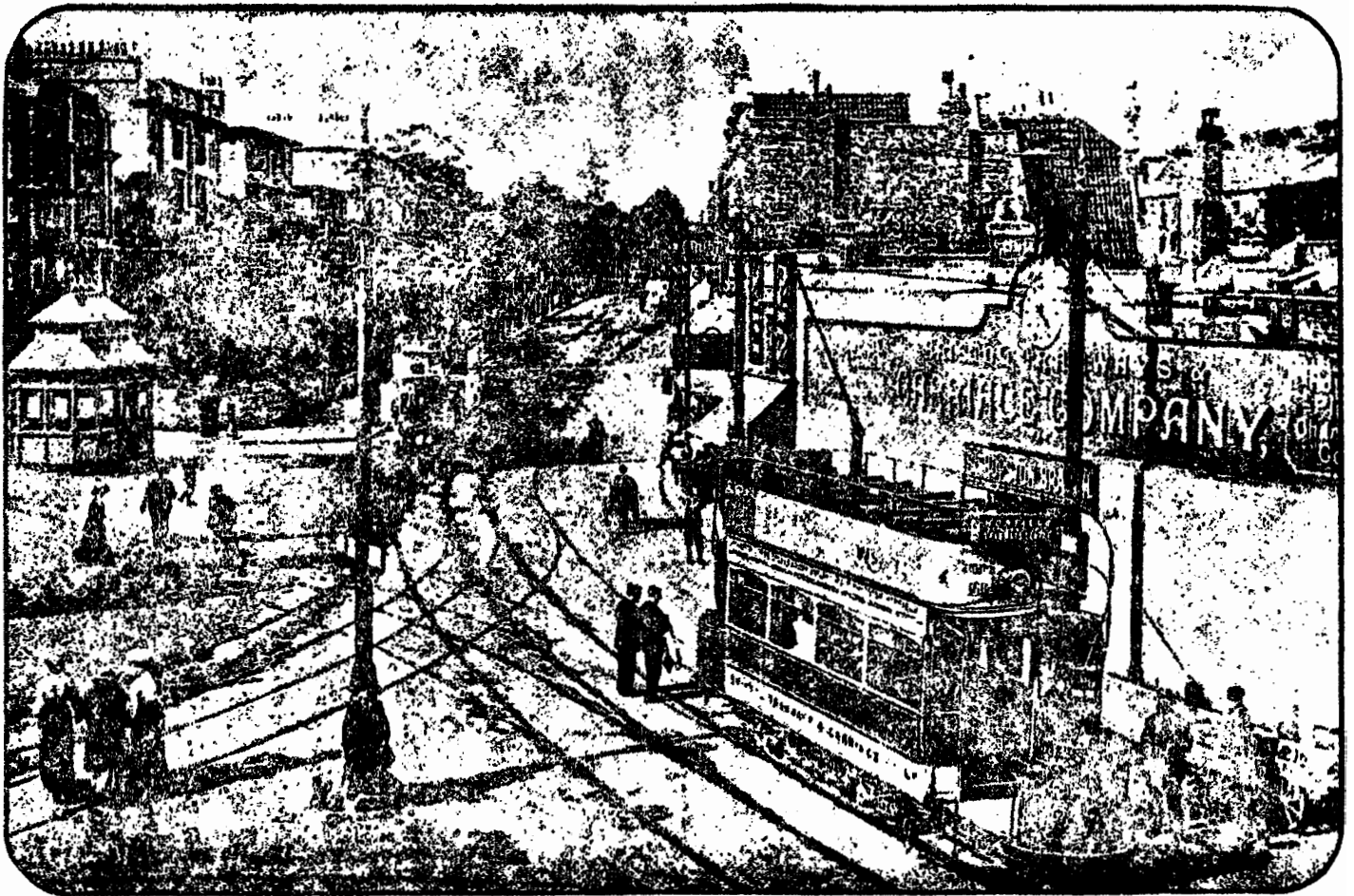
The new tramway was an immediate success and electrification of the entire horse tramway system and the construction of new lines commenced. These works were virtually complete by early 1901, the only lines opened after that date being the extensions to Filton (1907) and Westbury-on-Trym (1908). The last horse trams were withdrawn on 22nd December, 1900.

Route mileage now totalled 31 miles of standard gauge tramway, the majority of which was double track - the only lengthy sections of single track with passing loops being eastwards from St. George to Kingswood and Hanham. Nearly 8 miles of route were situated outside the Bristol City Boundary.

George White had numerous other business interests and following visits to France in 1910 became convinced that the transport of the future would be the aeroplane. With this in mind he established the Bristol and Colonial Aeroplane Co. Ltd. (later Bristol Aeroplane Co. Ltd.) at the Filton tramway terminus so that the Tramway Company would benefit from the crowds who were expected to come to witness the flying demonstrations.

A further 7½ miles of line were authorised in 1904 and in 1920 a proposal was made to construct 4 miles of line from Hotwells to Avonmouth, partly on reserved track alongside the new road under construction along the north bank of the River Avon. None of these lines were ever built.

With the exception of Colston Street and Victoria Street,



Zetland Road in 1911. On the right is the Bishopston branch of the Bristol Tramways and Carriage Company. Reproduced from "Bristol A-Z" by Max Barnes, by kind permission of The Bristol Evening Post.

all the horse tram depots were converted for the electric cars. In addition new depots were built at Staple Hill and Brislington, the latter holding 48 cars besides having extensive workshops. The Whitson Street depot was only used for maintenance purposes.

The services operated evolved from the former horse tramways. Various methods of route identification were tried including coloured boards and lights, route letters and finally route numbers. The latter were introduced in November 1913 but had fallen out of use by the mid 1920's, the destination only being shown thereafter. At their maximum there were seventeen services, although some of these were only short-workings, and they are shown on the attached plan.

The rolling stock was all of basically the same design. All cars were four-wheel, double deck and open top seating 53 persons. They remained virtually unchanged throughout their lives. At the time of the opening of the Westbury-on-Trym extension the fleet consisted of 232 cars, all built by Messrs. G.F.Milnes & Co. of Birkenhead or their sub contractors. In 1920 a further six cars were constructed, this time by the Company itself, bringing the passenger car fleet to a maximum of 237. (One of the original cars had been converted to a works car). A livery of dark blue and ivory, lined out in gold, was used and the fleet number was conspicuously displayed at each end. In addition to the passenger cars there were two snowploughs and they were joined later by two rail grinders converted from passenger cars.

On the 1st January, 1930 the Company became a subsidiary of the Great Western Railway Company. This arrangement was short lived since the G.W.R. transferred its shareholdings to the Western National Omnibus Company in December, 1931, the Bristol Tramways thereby becoming part of the Thomas Tilling Group.

The Company's difficulties were mainly brought about through the workings of the 1870 Tramways Act. The Corporation had the right to purchase the tramways in 1915 and every seventh year thereafter with the result that the Company was not inclined to embark upon modernisation schemes involving heavy capital expenditure. Most other cities the size of Bristol had municipalised their tramways at the turn of the century and had built up modern fleets of cars which contrasted with the antiquated open top cars in Bristol. It is no wonder that the Corporation exercised its 1936 option to purchase the tramways with a view to their abandonment.

BRISTOL CORPORATION

Bristol Corporation assumed ownership on July 30th, 1937. A joint Committee was formed representing the Corporation and the Company with the latter continuing to operate the tramways on behalf of the Corporation until their abandonment.

The first lines were closed in May, 1938 and by the outbreak of the second world war only the lines eastwards from Old Market to Kingswood and Hanham and southwards from Bristol Bridge to Ashton Gate and Bedminster Down were still running. The war relieved the trams for a while but the 'blitz' caused serious damage and dislocation

of services. This culminated in a bomb levering the main supply cables linking the power station to the trams on the 11th April, 1941. The trams ran no more.

SUMMARY OF OPENING AND CLOSING DATES OF LINES IN BRISTOL

OPENING DATE			CLOSING DATE
HORSE	ELECTRIC		
9.8.1875	5.12.1900	King David Inn-Whiteladies Road (Apsley Road)	7.5.1938
4.12.1875	5.12.1900	King David Inn-Tramways Centre	7.5.1938
- 5.1876	14.10.1895	Old Market-Clarence Rd/Trinity Rd	11.4.1941
- 6.1876	1.2.1897	Clarence Road/Trinity Road - Eastville	3.9.1938
- 9.1876	22.12.1900	King David Inn-Horsefair	7.5.1938
- 9.1876	22.12.1900	Horsefair-Broadmead-Old Market	15.7.1939
- 10.1876	14.10.1895	Clarence Road/Trinity Road - St George (Church)	11.4.1941
- 4.1879	13.7.1899	Bristol Bridge (North Side)-Victoria St-Bath Bridge	3.9.1938
- 11.1879	13.7.1899	Bath Bridge-Totterdown (Three Lamps)	3.9.1938
24.6.1880	22.12.1900	Tramways Centre-Hotwells (Dowry Square)	7.5.1938
17.11.1880	22.12.1900	Bristol Bridge-Bedminster Bdg.-Bedminster(Cannon St)	3.1.1941
18.11.1880	22.12.1900	Horsefair-Stokes Croft - Gloucester Rd (Egerton Rd)	15.7.1939
- 4.1881	13.7.1899	Bristol Bridge-Bath Street-Old Market	3.1.1941
- 4.1881	13.7.1899	Bristol Bridge-Baldwin Street - Tramways Centre	3.9.1938
1.1.1888	22.12.1900	Tramways Centre-Horsefair	15.7.1939
- 1892	14.10.1895	St George (Church) - Kingswood	11.4.1941
- 1892	22.12.1900	Gloucester Road (Egerton Rd)-Horfield (Ashley Down Rd)	15.7.1939
- 1892	- 1910	Line Along City Road from Stokes Croft to Brigstocke Rd	3.9.1938
- 1892	22.12.1900	City Road (Brigstocke Rd) - Ashley Road (Sussex Place)	3.9.1938
- 1896	22.12.1900	Bedminster (Cannon St) - Ashton Gate	3.1.1941
- 1898	13.7.1899	Totterdown (Three Lamps) - Arno's Vale	3.9.1938
- 1898	22.12.1900	Ashley Road (Sussex Pl) - Lower Ashley Rd-Stapleton Road	3.9.1938
?	22.12.1900	Bedminster (Cannon St)-Bedminster Down	3.1.1941

HORSE	OPENING DATE ELECTRIC		CLOSING DATE
-	28.9.1897	Eastville-Fishponds (Full Moon)	3.9.1938
-	6.11.1897	Fishponds (Full Moon) - Staple Hill	3.9.1938
-	5.12.1900	Whiteladies Road (Apsley Road) - Durdham Downs	7.5.1938
-	22.12.1900	Horfield (Ashley Down Road) - Horfield Barracks	15.7.1939
-	22.12.1900	Cheltenham Road-Zetland Road - Redland Road-Durdham Downs	15.7.1939
-	22.12.1900	St James Barton - Portland Square - City Road	3.9.1938
-	22.12.1900	Arno's Vale - Brislington	3.9.1938
-	22.12.1900	Totterdown (Three Lamps) - Knowle (Broadfield Road)	3.9.1938
-	22.12.1900	St George - Nags Head Hill - Hanham	11.4.1941
-	22.12.1900	Hotwells (Dowry Square) - Avon Gorge Terminus	7.5.1938
-	28.3.1901	Line Along Barrs St From Merchant St to St James Barton	15.7.1939
-	21.3.1907	Horfield Barracks - Filton (Church)	15.7.1939
-	16.9.1908	Durdham Downs - Westbury Road - Whitetree	7.5.1938
-	28.10.1908	White Tree - Westbury on Trym (Fountain)	7.5.1938

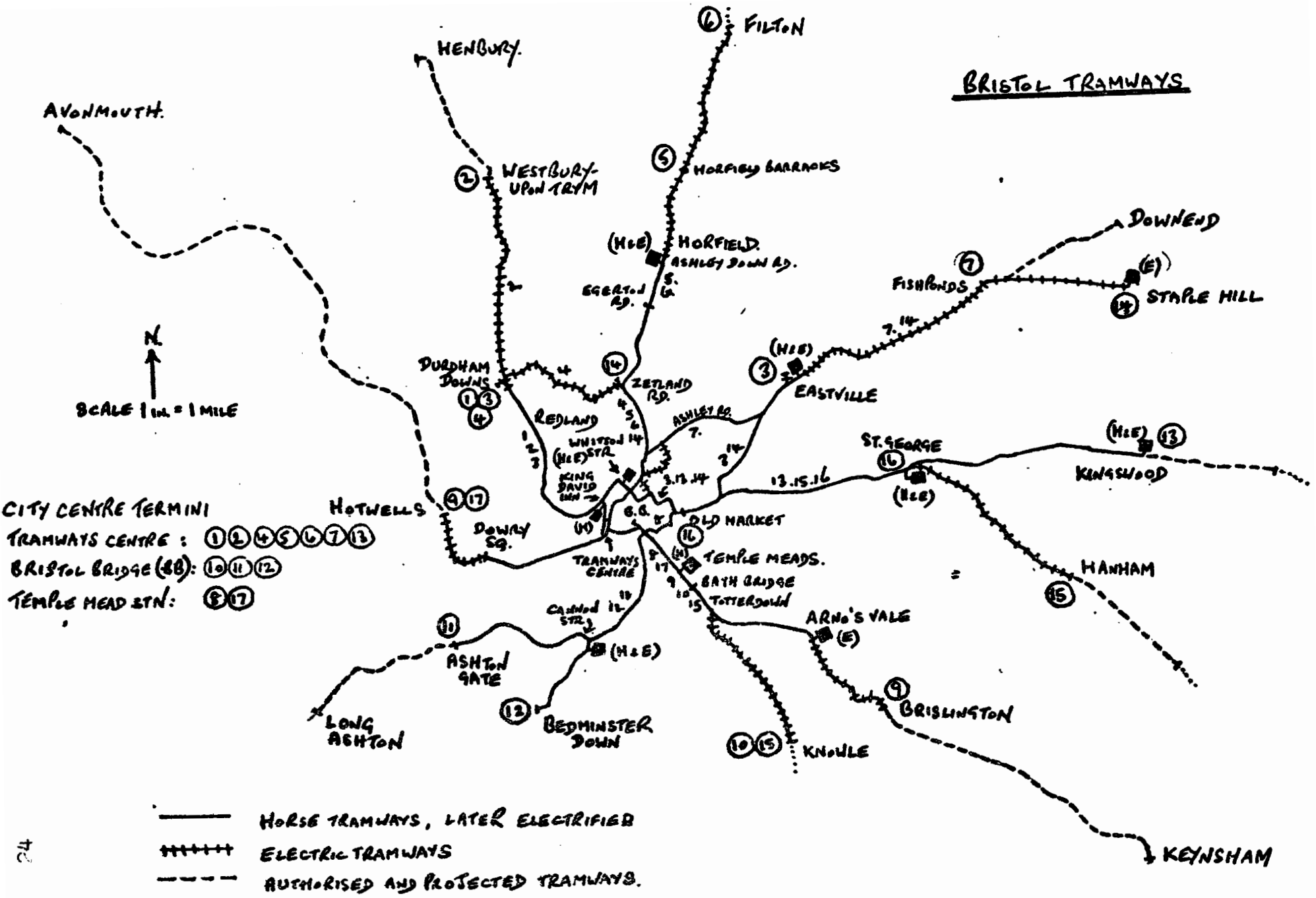
NOTE: Slightly Varying Opening Dates are shown in different sources of reference.

CHELTEHAM & DISTRICT LIGHT RAILWAY CO. LTD.

The Company was formed in 1898 by Mr Thomas Nevins, an American who had settled in Cheltenham, as one of a number of schemes he promoted in Cheltenham, Gloucester and Stroud with horseways. He obtained the necessary powers under the 1896 Light Railway Act for a 2ft. 6in. gauge line from Cleeve Hill to Lansdown Castle with a depot opposite to Lansdown Railway Station.

Things got off to a bad start. Shortly before the official opening of the line, a car was being tested on Cleeve Hill when its brakes failed. It ran down the line and overturned killing two people. Public services commenced on 22nd August, 1901 and business gradually improved and the lines were extended to Leckhampton and

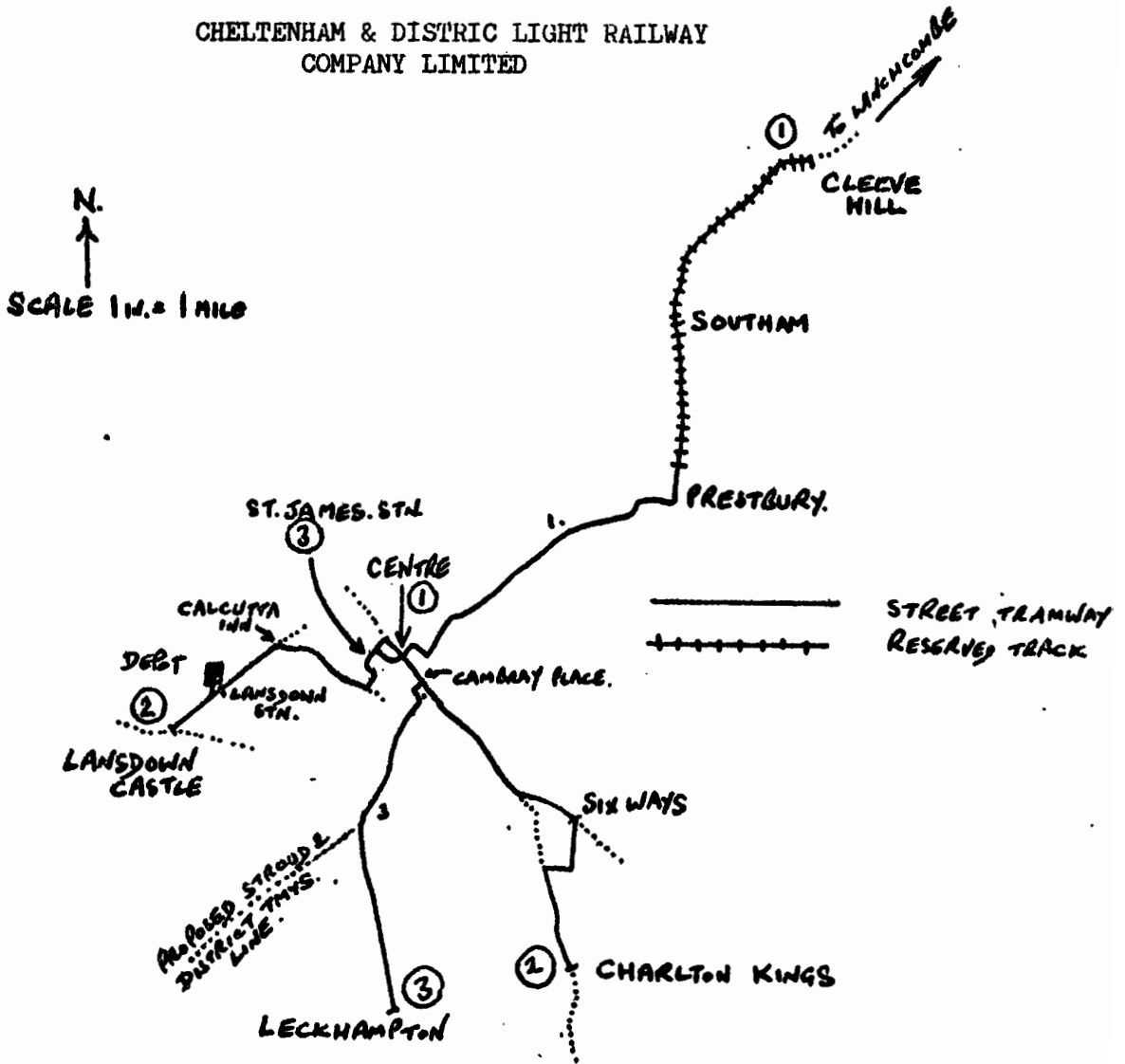
BRISTOL TRAMWAYS



CITY CENTRE TERMINI
 TRAMWAYS CENTRE: ① ② ④ ⑤ ⑥ ⑦ ⑬
 BRISTOL BRIDGE (48): ⑩ ⑪ ⑫
 TEMPLE HEAD STN: ⑧ ⑯

- HORSE TRAMWAYS, LATER ELECTRIFIED
 - +++++ ELECTRIC TRAMWAYS
 - AUTHORIZED AND PROJECTED TRAMWAYS.
- E = Electric Trams H = Horse Trams.

CHELTEMHAM & DISTRICT LIGHT RAILWAY
COMPANY LIMITED



SUMMARY OF OPENING AND CLOSING DATES OF LINES

OPENING DATE		CLOSING DATE
22.8.1901	Centre-St Georges Rd-Lansdown Stn-Lansdown Castle	31.12.1930
22.8.1901	Centre-Prestbury-Southam-Cleeve Hill	3.1930
28.3.1905	Centre-London Rd-Six Ways-Charlton Kings Stn	31.12.1930
28.3.1905	High St (Junction)-Bath Rd-Leckhampton (Charlton Lne)	3.1930
28.3.1905	Loop Line along Lower High St and Ambrose St	31.12.1930

Charlton Kings in 1905, bringing the route mileage up to its maximum of 10.22 miles.

Consequent upon the Cleeve Hill accident, passengers were not allowed to travel on the top deck whilst the car was on the hill and the two single-deck cars were used at busy times to carry excess passengers.

It is interesting that the Cleeve Hill route was the first to be built, although it was probably the Company's intention to ultimately extend the line to Winchcombe and suggests that the proprietors thought the tourist trade to be more lucrative than the day to day business of the town. Beyond Prestbury the line ran on a reserved track on the side of the road and over this section the company operated a parcel delivery service.

In 1914, the Company came under the control of the Balfour Beatty Group who operated tramways in a number of other towns.

Apart from the one-way scheme in the town centre, the longest stretch of double track was from Cheltenham College to Combray and by the late 1920's traffic congestion was becoming a problem and replacement of the trams by trolleybuses was seriously considered in 1928-9. This was not proceeded with and the trams were finally replaced by buses in 1930, the last cars running on 31st December.

The rolling stock consisted of 25 cars. The first 8 were of American manufacture and reflected the nationality of the promoter. The next 12 cars, which included two single-deckers were built between 1902 and 1905 by the Gloucester Railway Carriage & Wagon Co. In 1921 three cars were purchased from the English Electric Company and it is one of these (No 21) that has been preserved and is now at the Colch Tramway Museum. The final additions came in 1928 when two second-hand cars were purchased from Worcester Tramways. All cars were four-wheelers and the double deckers were all open topers. They were painted a plain dark red at first but this was replaced by a brighter red and cream later.

Three basic services were operated and although route numbers were not used they are indicated by the numbers 1 to 3 on the attached plan. (see previous page).

GLOUCESTER TRAMWAYS CO. LTD.

Proposals to construct horse tramways within the City of Gloucester were first made in 1877 and the Gloucester Tramways Co. Ltd. was formed as a subsidiary of the Imperial Tramways Company. Its promoter was Mr George White who therefore brought it under the same control as the Bristol Tramways.

The necessary powers under the 1870 Tramways Act were obtained in 1878 to build 3.58 route miles of tramway. Of this, 3.36 miles were actually built and public services appear to have commenced on all lines on 24th May, 1879.

Unfortunately the Company was not a financial success and by the middle of 1881 the two lines from The Cross to St Nicholas Church and from Eastgate Street to the Stations had fallen into disuse. In July 1881 the Company was re-formed as the City of Gloucester Tramways Co. Ltd., but still retaining its links with George White and the Imperial Tramways Co. Ltd.

The gauge chosen was the unusual one of 4ft but this was changed to the more conventional 3ft. 6in. when the lines were reconstructed for electric traction in 1903/04.

Initially the rolling stock consisted of six cars but this was gradually increased to thirteen. All cars were single-deckers, the first six were supplied by two manufacturers and the remaining seven by the Gloucester Railway Carriage & Wagon Co.

The Company's depot and stables were situated in India Road off Barton Street.

CITY OF GLOUCESTER TRAMWAYS CO. LTD.

Outwardly there was little change from the Gloucester Tramways Co. Ltd. The Westgate Street and Stations routes were not re-opened but in 1897 a short extension was opened taking the line further along the Bristol Road to Tuffley Avenue.

It appears as though the Company traded profitably for the rolling stock was increased to 14 cars operating not only from the India Road depot but also from a new one in Bristol Road.

In 1899, the Company applied for powers without the approval of Gloucester Corporation, to reconstruct the existing horse tramways to 3ft.6in. gauge and to build new lines,

altogether totalling 7.08 miles and to change over to electric traction. Although the Corporation's right of purchase under the 1870 Act did not arise until 1911, negotiations took place for an early purchase and for the electric tramway powers to be transferred to the Corporation. Terms were finally agreed and ownership was transferred on 30th September, 1902, but the Company continued to operate the horse tramways on behalf of the Corporation until the end of that year.

GLOUCESTER CORPORATION LIGHT RAILWAYS

The Corporation assumed full control of the horse tramways on 1st January, 1903, and operated the trams themselves, gradually withdrawing them as electrification work proceeded. The last horse trams ran on 17th March, 1904 and the City was without proper public transport for nearly two months until the electric tramways commenced in May.

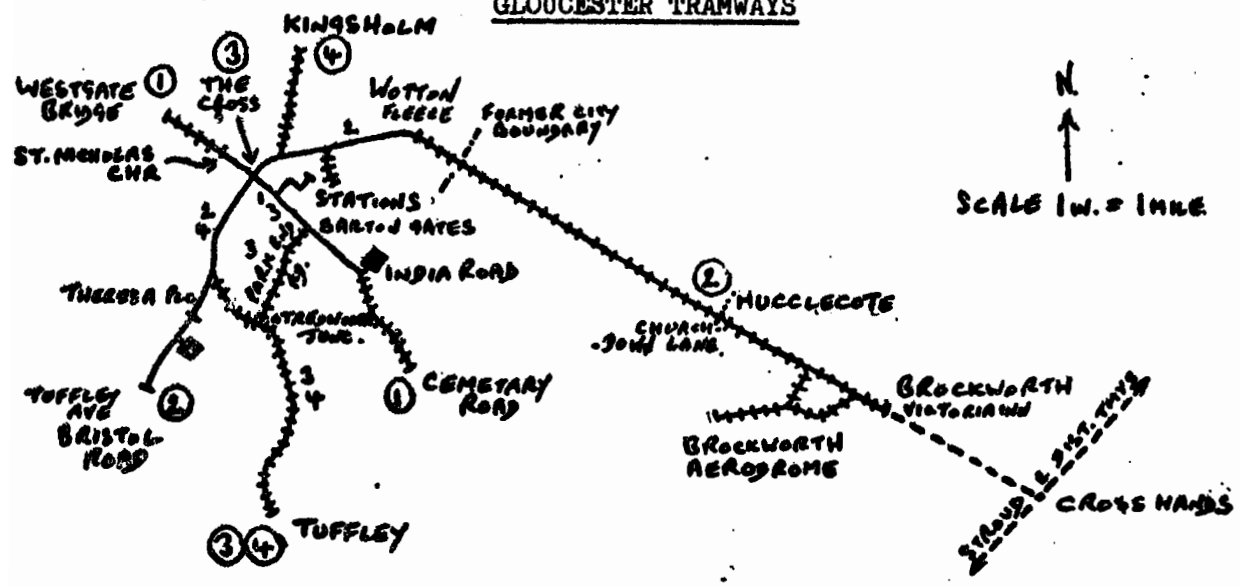
Transfer of powers from the City of Gloucester Tramways Co. Ltd. was complicated by the fact that one of the lines ran outside the City Boundary. It was resolved by the Gloucester County Council assuming responsibility for the line from the City Boundary to Ecclestone, thereby becoming one of only six counties in the British Isles to own tramways. The County Council constructed the line and leased it to the Corporation for tramway operation.

Electric services commenced on all lines on 7th May, 1904. The only extensions were made in 1917 when track taken from the disused Westgate Bridge line was used to build reserved track extension from Ecclestone to the Brockworth Aircraft Factory. At the same time a short line was laid from London Road to the eastern entrance to the G.W.R. Railway Station.

The total route mileage was 9.74 (7.05 miles - Corporation lines and 2.69 miles - County Council lines). An extension was authorised for a line to continue along Ermine Street to the Cross Hands where it would have joined the proposed Stroud and District Company's line from Stroud to Cheltenham. Had this come about it would have been possible to travel by tram from Gloucester to Cheltenham but it is doubtful whether Shurdington would now be the village it is today.

In comparison to other towns of similar size, Gloucester had a large proportion of double track - the lines to Bristol Road, Tuffley via Southgate Street, Kinghole and Wotton being almost entirely so laid. The County Council lines were almost entirely single track with passing loops.

GLOUCESTER TRAMWAYS



- HORSE TRAMWAYS, MOSTLY ELECTRIFIED LATER.
- - - - - ELECTRIC TRAMWAYS
- - - - - PROJECTED TRAMWAYS.

SUMMARY OF OPENING AND CLOSING DATES OF LINES

OPENING DATE		LINE	CLOSING DATE
HORSE	ELECTRIC		
24.5.1879	7.5.1904	The Cross-Southgate St-Bristol Rd (Theresa Pl)	11.1.1933
24.5.1879	7.5.1904	The Cross-London Rd-Wotton(Fleece)	11.1.1933
24.5.1879	-	The Cross-Westgate St-StNicholas Ch	- 1881
24.3.1879	7.5.1904	The Cross-Eastgate St-India Rd	7.9.1929
24.5.1879	7.5.1904	Northgate St Junction-Kingsholm	7.9.1929
9.6.1879	-	Eastgate St Junction-Clarence St - Stations	- 1881
10.7.1897	7.5.1904	Bristol Rd(Theresa Pl)-Bristol Rd (Tuffley Ave)	11.1.1933
-	7.5.1904	The Cross-Westgate St-Westgate Br	12.8.1917
-	7.5.1904	India Rd-Painswick Rd-Cemetary Rd	7.9.1929
-	7.5.1904	Wotton(Fleece)-Hucclecote (Churchdown Lane)	11.1.1933
-	7.5.1904	Southgate St Junction-Stroud Rd-Tredworth Junction	- 1927
-	7.5.1904	Barton Gates - Park End Rd-Tredworth Junction	7.9.1929
-	7.5.1904	Tredworth Junc-Stroud Rd-Tuffley	7.9.1929
-	- 1917	Hucclecote (Churchdown Lane)-Brockworth (Victoria Inn)	1.10.1924
-	- 1917	Branch from Ermine St To Brockworth Aerodrome	1.10.1924
-	- 1917	London Rd Junc-GWR Station(East Side)	?

The depot for the electric cars was the former horse tram depot in the Bristol Road, the India Road premises being closed.

As mentioned above the first abandonment came in 1917 and this was followed by a gradual closure of the system during the 1920's. The last line (Bristol Road to Hucclecote) was closed on 11th January, 1933 being replaced at first by Corporation buses.

Rolling stock consisted of 30 four-wheel, double-deck, open-top cars built by the Brush Company at Loughbrough. At first the livery was crimson lake and cream but during the First World War this was changed to grey which remained until the closure of the system. In addition there was a works car and a number of goods wagons used to transport goods from Gloucester Station to Brockworth Aerodrome. At their maximum, four basic services were operated. Although route numbers were not used they are indicated by the numbers 1 to 4 on the attached plan. After 1914 the section of Stroud Road from Southgate Street to Tredworth Junction was not in regular use.

STROUD AND DISTRICT TRAMWAYS COMPANY

Another of the promotions of Mr Thomas Nevins of Cheltenham. It was formed at the turn of the century to construct 24 route miles of tramways, the necessary Powers being obtained in 1903 to build 15½ miles linking Chalford, Nailsworth, Dudbridge Station, Stonehouse and Painswick. It was intended that the latter line should continue through Brockworth to Cheltenham where it would have linked up with Mr Nevins's other Company. It is hard to see how this route could have paid its way since even by 1909 the bus service over this road between Stroud and Cheltenham ran on only two days a week.

CONCLUSION

The foregoing is no more than an outline of the history of each Company. The most useful detailed book on the subject is "The Tramways of the West of England" by P.W.Gentry, first published in 1952. A more recent book "Bristol's Trams Remembered" by John B. Appleby amplifies many aspects of the Bristol tramways.