# MINUTES FROM THE ENGINEERING COMMITTEE MEETINGS

# by Tony Beard

# **MEETING No.143 HELD ON 2 NOVEMBER 1936**

#### **Tube Tunnel Construction**

It is here recorded for convenience that the Vice-Chairman, accompanied by the Officers concerned, on Wednesday 28 October, inspected various experimental types of station tunnel construction which had been prepared at the disused platform at Holborn. It was decided that certain further experiments should be made with the concurrence of the Chairman.

# **Distribution of Traffic Along Platforms**

Mr J.P. Thomas submitted a diagram showing the location of platform entrances and exits on the Central London Line and its proposed extensions together with a covering memorandum dated 29 October.

It was decided that the position disclosed by the diagram was satisfactory subject to consideration being given to the entrances at either Mile End or Bethnal Green Stations being in the centre of the platform instead of at the front.

#### **MEETING No.144 HELD ON 9 NOVEMBER 1936**

# Renewal of Rolling Stock - Surface Lines

A memorandum dated 6 November signed by the Comptroller and Accountant and Chief Mechanical Engineer was submitted setting out particulars of three alternative schemes for the replacement of rolling stock on surface lines together with the cost of each of the schemes and their effect on operation.

It was decided that Scheme 2 as set out in the memorandum and involving an increased charge to revenue of £74,843 per annum should be approved for submission to the Chairman's Meeting subject to:

- (a) Mr Graff Baker giving further consideration to the possibility of retaining in service for, say, ten years the 20 Metropolitan Line electric locomotives with steam stock carriages for use as a self-contained link of trains on the main Metropolitan Line.
- (b) The question of the provision of air doors on new stock being left for decision at the Chairman's Meeting

#### Old Rolling Stock - Lille Bridge

Mr Graff Baker submitted a memorandum dated 5 November reporting that at the present time there were a number of old cars as set out in the memorandum in Lillie Bridge Depot. The accommodation occupied by these cars was required by the Civil Engineer and a decision as to the future of these cars was required. It was decided:

- (a) That Loco No.36 City & South London Railway should be removed to the position which is being prepared for it at Moorgate Station as quickly as possible.
- (b) That the remaining stock set out in the memorandum could be scrapped provided that it was of no further use to the Board.
- (c) That Mr Barman should make a model of an old City & South London car to an agreed scale for museum purposes before the existing car is scrapped.

## **MEETING No.145 HELD ON 16 NOVEMBER 1936**

#### Renewal of Rolling Stock – Surface Lines

A revised memorandum dated 13 November signed by the Comptroller and Accountant and the Chief Mechanical Engineer was submitted setting out particulars of Scheme 2 for the renewal of rolling stock, surface lines modified by the proposed retention of the 20 Metropolitan Line electric locomotives and 70 cars originally proposed to be scrapped. It was noted that this scheme involve the purchase of 368 new cars of which 103 were motor cars and 265 trailer cars. The total cost with air-door operation was £2,073,943 and the annual burden on the Revenue Account representing interest and renewal provisions on additional capital expenditure on improvements would be £68,782. Mr Graff Baker reported that the adoption of the scheme as set out in the memorandum would not prejudice, at a later date, the scrapping of the electric locomotives and retained cars.

It was decided that the scheme set out in the memorandum should be approved for submission to the Chairman's Meeting.

Tottenham Court Road - Additional Passageway and Staircases - Contract.

Mr Cooper submitted a memorandum dated 13 November recommending that Messrs Chas. Brand's contract for the work at Post Office station should be extended to cover the construction of the additional passageway and staircases at Tottenham Court Road, the work being paid for at the rates contained in the Post Office contract and, where not applicable, at prices that had been agreed. This was approved.

## **Neasden Deport – Accommodation for Steam Locomotives**

Mr Graff Baker submitted a memorandum dated 13 November reporting that it was necessary to provide stabling accommodation for six steam locomotives at Neasden Depot in place of three as was formerly anticipated and that it was therefore necessary to modify the associated drawings, the modifications estimated as an additional £1,100. This was noted and it was decided that the modifications should be approved for incorporation in the final drawings of Neasden Depot.

## **Central London Line – Improvements**

Mr Graff Baker reported that he had investigated the possibility of placing the order for the wagons required for carrying out improvements to the Central London Line tunnels with a firm in South Wales. The lowest price submitted by the firms approached was at least £300 greater than that quoted by the Gloucester Railway Carriage and Wagon Company. It was therefore recommended that the order for the 25 wagons should be placed with the Gloucester Railway Carriage and Wagon Company and this was approved.

# **Review of Outstanding Items**

The position of the following outstanding matters was review and decisions taken as shown hereunder:

- (a) West Brompton Station Reconstruction
  - Mr J.P. Thomas reported that the question of the reconstruction of West Brompton station was still under discussion with the Main Line Railway Companies concerned.
  - It was decided that the matter should be deferred for reconsideration in a month's time and that, meanwhile, Mr J.P. Thomas should endeavour to reach agreement with the Main Line Companies concerned for the reconstruction of the station.
- (b) Golders Green Station
  - A direction was sought as to whether it was still desired to proceed with the scheme of improvements to Golders Green station in view of the possible shift of traffic resulting from the electrification of the L&NER branch lines to Alexandra Palace, High Barnet and Edgware and the running of tube trains over them. The Vice-Chairman stated that, in his opinion, Golders Green would remain a heavy traffic centre and it was decided that a drawing showing the scheme of improvements should be prepared and submitted.
- (c) Regent's Park Station
  - Mr Cooper reported that a sketch of the proposed scheme of reconstruction at Regent's Park station, revised in accordance with earlier discussion, had been prepared and was available. It was, however, decided that the proposed reconstruction of Regent's Park station should be deferred for reconsideration for inclusion in the next programme of new works.

## Cockfosters Line – Inspection

The Vice Chairman visited the Cockfosters Line on 13 November during which the new depot and the stations at Cockfosters, Enfield West and Arnos Grove were inspected. A number of matters were raised for consideration, including the train describer, which was observed at Cockfosters, about which the Vice Chairman commented that the shuttering made it difficult to read. He requested Mr J.P. Thomas should consider the desirability at this and other outlying stations of the principle station in London through which the train would pass to be marked on the train describer, the extreme destination being shown second as on Green Line coaches passing through the centre of London e.g. "Piccadilly – Hounslow West".

## **MEETING No.146 HELD ON 23 NOVEMBER 1936**

# **Plans Signed**

The following plan having been approved and signed by the Officers concerned was submitted for the approval and signature of the Vice-Chairman:

## Northern Extension - Highgate to East Finchley

Drawing in four sheets showing the general layout and sections of the extension of the tube line between Highgate Underground station and its junction with the High Barnet branch of the L&NER south of East Finchley. These was approved and signed.

## Osterley station - Footpath

Mr Cooper reported that the Heston and Isleworth Borough Council had put forward a proposal that if the Board were to make up the footpath from Bassett Gardens, Osterley, on the Board's property, the Council would make up the footpath on each side of the Board's property and would be responsible for the maintenance, lighting and policing of the footpath including that portion over the Board's property..

It was decided that Heston and Isleworth Borough Council's proposal should be accepted and that the Board accordingly make up the footpath on their property, the Council then becoming responsible for its maintenance, lighting and policing.

## Goods and Ballast Wagons - Metropolitan Line

Mr Graff Baker submitted a memorandum dated 20 November reporting that, in accordance with an earlier decision, the agreement of the General Manager (Railways) had been obtained to the withdrawal of a second hundred 10-ton common user wagons. The Board had acquired from the Metropolitan Railway 44 6-ton ballast wagons which were in similar condition to the common user lower sided wagons and that it was therefore recommended that 44 of the 10-ton common user low-sided wagons, which it had been intended to scrap, should be retained as service vehicles; the 6-ton ballast wagons would be scrapped instead. The expenditure of approximately £15 per wagon would be necessary to put the wagons to be retained into satisfactory condition.

The retention of 44 10-ten common user low-sided wagons as service vehicles and the expenditure of £15 per wagon for putting them into satisfactory condition was approved.

It was further reported in the memorandum that, included in the 200 wagons withdrawn from the common use pool, were a number of the high-sided open type wagons which, it was recommended, should be used for the purpose of draining slurry at Neasden Generating Station instead of employing common user wagons for this purpose as at present, and that an expenditure of approximately £15 per wagon was required to make the vehicles suitable for this work. The Vice-Chairman stated that he was not prepared to approve this proposal without further investigation and directed Mr Graff Baker to consult with the Electrical Engineer (Neasden) and submit a joint memorandum containing recommendations for dealing on a permanent basis with the drainage and removal of slurry at Neasden Generating Station in the most economical way possible.

#### **MEETING No.147 HELD ON 30 NOVEMBER 1936**

# New Rolling Stock - Air Worked Doors

Following discussion at the Chairman's Meeting, it was decided:

- (a) That, so far as surface lines rolling stock is concerned, if it is not necessary to come to an immediate decision on the type of control to be provided for the air-door equipment on the new Hammersmith & City Line cars, the push button type of control should be provided experimentally on the panels of one car with transfers on the glass inside the car directing to the push buttons and a notice painted outside the car for the same purpose, but that, if a decision on the equipment of the Hammersmith and City Line cars cannot be deferred, the push button type of control should be provided on the panels of the cars.
- (b) That, so far as the Tube Lines rolling stock is concerned, Mr Graff Baker should prepare and submit an estimate of cost of fitting individual door controls to the Morden-Edgware Line stock which is to be transferred to the Central London Line, it being assumed that this provision would not be made on existing Piccadilly or Bakerloo Line stock.

#### **Goods and Ballast Wagons**

Mr Graff Baker reported that the question of drainage and the removal of slurry from Neasden Generating station had received consideration and that it had been ascertained that no expenditure need be incurred on the forty high-sided open type wagons which it was suggested should be withdrawn from the common user pool and used for the purpose of draining slurry, provided that they were not used outside Neasden Yard. The withdrawal of 40 high-sided open type wagons from the common user pool and their use for the drainage of slurry on these conditions was approved.

#### Stairwell Entrances

Mr Cooper submitted two sketches of horizontal railings around a stairwell entrance, in one case having the Underground bullseye supported from either side of the stairwell and in the other case having the Underground bullseye supported by a mast dropped through a centre handrail on the stairs. Mr Cooper also submitted various alternative designs for horizontal stairwell railings prepared by Mr A Crompton-Roberts. It was decided:

- (a) That the design of the horizontal stairwell railings shown on Mr Cooper's sketches should be approved in principle for adoption as the future standard, the bullseye sign being supported by a mast dropped through the handrail on the stairs where a centre handrail is provided and in other cases supported by a mast dropped through the pier of the stairwell entrance away from the kerb, "public subway" notices, where required, being placed on the rails protecting the back of the staircase. The design would be tried out at one station for inspection.
- (b) That Mr A. Crompton-Roberts' designs could not be approved.

# **MEETING No.149 HELD ON 14 DECEMBER 1936**

# **New Works Programme 1935-1940 – Architects**

Mr Cooper submitted a list dated 10 December setting out the building works comprised in Stage 1 of the New Works Programme 1935-40 together with the Architects whom it was suggested should be responsible for the individual items. It was decided:

(a) That responsibility for the architectural work of Stage 1 of the New Works Programme 1935-40, as set out in Mr Copper's memorandum be apportioned as follows:

	Works	Architects
(i)	Northern Extension: Highgate to Church End, Finchley All stations and substations except Edgware Station Edgware Station	Adams, Holden and Pearson Board's Architect
(ii)	Central London Line Extension to Newbury Park  All stations and substations and Hainault Depot except alterations to existing Central London Line stations,  Liverpool Street Station and Mile End station  Alterations to existing Central London Line stations –  Liverpool Street station reconstruction – Mile End station reconstruction.	Architects to be agreed with L&NER Board's Architect
(iii)	Metropolitan – Bakerloo Improvements Projection of Bakerloo Line trains to Stanmore All stations, substations and ancillary buildings.	Board's Architect
(iv)	Uxbridge Line All stations, sub-stations and ancillary buildings except improvements at Ruislip Station. Improvements at Ruislip Station.	Adams, Holden and Pearson Board's Architect
(v)	Works under Construction and Other General Works As set out in the list dated 10 December.	Board's Architect

#### **Platform Magazines**

A memorandum was submitted dated 10 December on behalf of the General Manager (Railways) reporting the principle of platform magazines on the Board's system had been investigated, the application of which being to expedite the clearance of heavy traffic from the platforms. Also recommended for consideration was the tapering of platforms away from the exit at new stations and, in so far as existing stations were concerned, in the first place at Oxford Circus station. The argument set out in the memorandum was accepted as valid in theory but it was agreed that it might be difficult and expensive to provide platform magazines of the type suggested. It was decided that Mr Larcombe

should consider and report on the possibility of providing platform magazines and the tapering of platforms of the type suggested at one or two specific stations.

## Camberwell Extension – Proposed Connection with Southern Railway Lines

A memorandum dated 10 December was submitted on behalf of the General Manager (Railways) reporting that, at the request of the Southern Railway Company, consideration has been given to connecting the Bakerloo Line with one of more of the Southern Railway Company's south-eastern lines in order to relieve congestion on those lines. The best of those scheme provided for the extension of the Bakerloo Line to a point just north of Peckham where it would join the Southern Railway's system and the trains projected to Dartford over both the Bexleyheath and Dartford Loop Line. It was decided:

- (a) That the Board would agree in principle to the proposal that the Bakerloo Line should be extended in a south easterly direction to link up with the Southern Railway's system and that a scheme should be prepared by the General Manager (Railways) and the Southern Company's Officers and be submitted as soon as possible on the following bases:
- (i) The Board's tube trains to take over the operation of not more than two of the Southern Railway Company's services.
  - (ii) The tracks to be used for the Board's trains to be independent of the tracks used by the Southern Railway Company's trains.
  - (iii) The services to be worked by the Board to operate to a point or points not more than 12 miles from Charing Cross.
  - (iv) The districts to be served by the Board's trains to be of such a nature as will respond to a direct connection with the West End.
  - (v) Convenient interchange to be provided for traffic from lines over which the Board's trains would operate to the City and from the other lines of the Southern Company's to the West End.
- (b) That the report called for in (a) above should give details of the present volume and nature of the traffic using the lines over which it is proposed that the Board's trains shall operate.

#### Marble Arch Station - Coronation

A memorandum dated 10 December was submitted on behalf of the General Manager (Railways) reporting that a proposal had been made to provide a temporary exit from the Park Lane stairwell at Marble Arch station into Hyde Park, the estimate cost of the work being roundly £150. The proposal was shown on a sketch plan which was also submitted.

It was decided that the proposal as shown on the sketch should be approved for negotiation with the authorities concerned.

## **Green Park Station – Coronation**

Mr Cooper submitted a drawing showing the proposed arrangement of the gate leading from the exit from Green Park station to the south side of Piccadilly into Green Park. This arrangement was approved.

#### **Underground Map**

Mr Barman submitted a revised edition of the diagram map of the Underground system to include the lines to be constructed as part of the New Works Programme 1935-40. The map submitted was approved subject to:

- (a) The North Eastern Lines over which the Central London trains would work being rearranged as indicated by the Vice-Chairman.
- (b) The Underground bullseye on a smaller scale being placed in the space between the Cockfosters line and Ongar line.
- (c) The Elstree extension being added to the map in the appropriate place as shown as a work for which Parliamentary powers were being sought.

#### **MEETING No.150 HELD ON 21 DECEMBER 1936**

#### **Hillingdon Station**

Mr Cooper referred to recent discussion that had taken place at an Estates Committee meeting and requested that a final decision should be made regarding the site of the new Hillingdon station at Western Avenue before the land was purchased. It was decided:

- (a) That Mr Buller should conclude negotiations with the Middlesex County Council for the purchase of nine acres, as shown on the plan submitted, of the field north of the Metropolitan Line between Long Lane and Western Avenue.
- (b) That Mr Cooper, in conjunction with the officers concerned, should work out a scheme for the station sited north of the railway and west of the bridge carrying Western Avenue over the railway with as much of the field to be purchased by the Board as necessary, laid out for station facilities, car park, shops etc., the remainder of the field being left for development by another party.