

MINUTES FROM THE ENGINEERING COMMITTEE MEETINGS

by Tony Beard

MEETING No.159 HELD ON 1 MARCH 1937

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:

High Barnet – Sidings

Drawing No E10875 showing the proposed general layout of High Barnet Station with the sidings constructed east of the station platforms, in accordance with a previous decision. It was noted that this scheme was cheaper than that shown on Drawing No.E10618, providing sidings of less but adequate capacity. The drawing was approved and signed for layout and sidings.

Baker Street Station – Reconstruction

The Vice-Chairman accompanied by the officers concerned, visited Baker Street station, shown at street and ticket hall levels on drawings which it was decided to revise on the basis of:

- (a) The first section of the arcade from Baker Street into the ticket hall remaining unaltered, with the possible exception of the removal of the curved glass shop windows at the entrance to the passage.
- (b) The ticket hall and connecting passages being moved in a south-westerly direction as indicated by the Vice-Chairman so as to avoid expensive alterations to the existing circulating area.
- (c) Steps connecting directly with the Marylebone Road being built in the parapet wall opposite the upper level entrance to the station.
- (d) The Marylebone Road entrance being moved westward by one arch.

Elephant & Castle Station – Reconstruction

Mr Cooper submitted a memorandum dated 26 February reporting that the scheme for the provision of three platforms at Elephant & Castle station, did not provide adequate traffic facilities and that it was desired to substitute a scheme providing two platforms only. It was noted that this latter scheme would cost approximately £13,000 more than the scheme for three platforms but that it provided for greater length of running tunnels on the route to Camberwell. It was further reported in the memorandum that a saving of £60,000 could be obtained by providing platforms of sufficient length to accommodate seven instead of eight car trains, the lengthening of the platforms to accommodate eight car trains being done later, if required, at only a small extra cost.

It was decided that the scheme for two platforms should be approved and of sufficient length for seven cars only be provided at this stage, subject to confirmation at the next meeting when the general question of the lengthening of Bakerloo Line platforms would be discussed.

Aldenham Station

Mr Cooper submitted a drawing showing a scheme for the general layout of the Board's property at Aldenham station, which it was desired to show to the Hertfordshire County Council in connection with their opposition to the Board's 1936/37 Bill. It was decided:

- (a) That Hertfordshire County Council should be asked to state what land owned by the Board they require in connection with the Green Belt and requested to provide a plan showing any new roads or widening of existing roads in the vicinity of the railway at Aldenham. In addition Hertfordshire County Council would be informed that, until this information is available, it would be impossible for the Board to devise a scheme for the layout of the station and accompanying facilities.
- (b) That Mr Cooper should ascertain the level of the tracks at Aldenham station and consider a scheme providing a ticket hall as near the apex of the terminal site as possible, this ticket hall connecting directly with the car park and bus station, placed behind the ticket hall respectively on either side of the tracks and with a bridge of light construction which would span both the Watford By-Pass and Elstree Roads and connect with a passenger shelter on the pavements on each side of these roads.

Sloane Square Station – Superstructure

Mr Cooper submitted a memorandum date 27 February reporting that the drawings for an eight storey superstructure over Sloane Square station, provided by Mr McGrath, required the provision of heavy foundations and steelwork in the existing station and platforms, which would cost approximately £29,000 more than the original scheme for a new station and escalators. It was noted that the additional revenue

to be obtained by the construction of the superstructure, compared with the provision of a new station with escalators only, did not provide an adequate return on the additional capital expenditure. It was decided:

- (a) That Mr Buller inform Mr McGrath that it would be impracticable to provide adequate support for a building constructed to the plans submitted by him.
- (b) That the scheme for a new station with escalators as originally contemplated should be fulfilled.

MEETING No.160 HELD ON 8 MARCH 1937

Plans Signed

The following plans, having been approved and signed by the officers concerned, were submitted for the approval and signature of the Vice-Chairman:

(a) **Uxbridge Substation Site**

Drawing No E11102-A showing the proposed site, including access road, east of the railway, of the new substation at Uxbridge.

Approved and signed.

(b) **Acton Works Extension**

Drawing No E 10711-D with overlay showing the revised and general layout of Acton Works as extended and approved in accordance with an earlier decision. Approved and signed as overlay.

Stairwell Entrances

Mr Cooper submitted various alternative sketches of the arrangement of horizontal railings around stairwell entrances and mast with bullseye sign at Post Office station, one of the sketches being prepared by Adams, Holden and Pearson and the remainder by Mr Heaps. It was decided:

- (a) That the arrangement on Drawing No 4933-B should be approved in principle, subject to:
 - (i) The railings being arranged at progressive intervals with the lower railings close together and the upper railings wide apart as desirable.
 - (ii) The surround of the railings and the mast supporting the bullseye being constructed of granolith.
 - (iii) The name of the station being shown on the bullseye and the words "London Transport" being shown in a small, illuminated box immediately underneath the bullseye.
 - (iv) The mast being of such height that the bottom of the "London Transport" box is 8ft above pavement level.
- (b) That a small sized dummy in wood of the whole arrangement of the stairwell entrance and the mast and sign in accordance with the decisions recorded in (a) above should be erected at Parsons Green Depot for inspection before the design is finally approved.

Bakerloo Line – Platform Lengthening

Consideration was given to a memorandum signed by Mr Cooper and Mr Graff Baker giving the costs of lengthening the platforms on the existing Bakerloo Line for seven cars and eight cars and providing the necessary rolling stock to utilise these platforms fully, on various alternative assumptions. It was noted that, if the platforms were lengthened at this time to take seven car trains and were subsequently lengthened to take eight car trains, the extra cost of lengthening would amount to approximately £92,000.

Mr J.P. Thomas reported that, if the lengthening to eight cars were postponed for eight years, the interest on the additional cost of lengthening the platforms to take eight car trains now would equal the extra cost of £92,000 and that it was unlikely that eight car trains of the new type would be required within the next eight years. It was accordingly decided that the Bakerloo Line platforms should be lengthened to accommodate seven car trains at a cost of £432,000 on the assumptions that:

- (a) A mixed service of seven car trains should be operated, 23 trains being of the new stock for the Watford Line service and 24 trains being of old stock for the Metropolitan Line service. Eight new motor cars additional to the proposals approved in the New Works Programme, at a total cost of £49,440 to be provided.
- (b) It is more economical to lengthen the platforms to accommodate seven car trains rather than accommodate eight car trains at this stage, provided that the lengthening for eight car trains is not undertaken during the next eight years.

Hainault Station

Mr Cooper reported that a scheme had originally been prepared for a four-track station at Hainault, but after consultation with the LNER, it had been found possible to arrange a satisfactory layout for a three-track station which would make it unnecessary to remove the existing platforms but would still require demolition of the station buildings. The scheme proposed was shown on a sketch submitted and it was noted that this layout could be converted to a four-track layout at a late stage if necessary.

Mr J.P. Thomas stated that it was proposed to reverse a six-minute service from both directions during the peak hours at Hainault station. It was decided that a decision on the layout of Hainault station should be deferred to the next meeting and that meanwhile:

- (a) Consideration should be given to an alteration in the proposed arrangements for working the tube service so as to enable the existing station buildings at Hainault to be retained.
- (b) Mr Cooper would consult the City Corporation with a view to deciding where a proposed connection leading to the City Corporation's proposed airport at Barkingside could be satisfactorily provided.

Gants Hill – Moscow Type Lower Station

Mr David Anderson submitted a drawing showing the proposed construction of the "Moscow" type lower station at Gants Hill with a centre gallery formed by driving a tunnel of the same diameter – 21ft 2½ ins – as the station tunnels, at a level slightly above the station tunnels, in accordance with an earlier decision. It was decided:

- (a) That the arrangement shown on the drawing should be approved subject to:
 - (i) The gallery, instead of being central in the platforms should be moved 50ft further eastwards, the escalator being moved accordingly.
 - (ii) A cross passage between the platforms being provided towards the west end in which the offices and necessary facilities would be situated, doors being provided on both sides so that it might be used as a passage in emergency.
- (b) That the columns to be treated simply, Mr Holden to submit a drawing.
- (c) That the end wall of the gallery should be used for commercial purposes, including the housing of automatic sales machines and the display of commercial advertisements; a drawing of the layout proposed to be submitted.

Liverpool Street Station – Escalator Scheme

Mr David Anderson submitted a drawing showing the proposed new escalators at Liverpool Street station moved in a westerly direction so as to provide a larger lower circulation area where the new and existing sets of escalators reach the Central London platforms.

It was decided that the arrangement shown on the drawing should be approved, subject to the omission of the proposed new connections at the foot of the existing escalators between the lower circulating area and the platforms and to the central passageways between the lower circulating area and the platforms shown on the drawing being enlarged from 7ft 6ins to 9ft in width.

Oxford Circus Station

A model of the existing station at Oxford Circus was inspected and consideration was given to the improvement of facilities at this station which was necessitated as a result of the existing congestion and the heavier traffic which will result from the opening of the extension to Central London and Bakerloo lines.

Mr J.P. Thomas submitted a memorandum dated 26 February setting out (i) a possible ideal final scheme providing additional escalators and (ii) a temporary scheme for relieving the existing congestion by reinstating two of the Central London Line lifts as shown in the drawing submitted. It was decided:

- (a) That consideration should be given to extending the Central London Line platforms and to constructing a new lower level circulating area between the two railways, as indicated by the Vice-Chairman.
- (b) That consideration be given to squaring up the existing ticket hall by excavating the "nose" between the Bakerloo and Central lines' escalators.
- (c) That, as a temporary measure, the scheme for reinstating lifts at Oxford Circus should be further studied on the basis of new high speed lifts of large capacity being installed which could subsequently be used elsewhere. A detail scheme with estimates to be submitted.

Earl's Court Station – Improvements

- (a) **Station**

Mr Cooper submitted a memorandum dated 3 March reporting that authority had been given in March 1936 for an expenditure of £125,000 on the escalator connection between Earl's Court station and the Exhibition Buildings and the reconstruction of Warwick Road entrance and that there would be an excess expenditure over this figure of about £15,000 for the reasons set out in the memorandum.

This was noted. A Special Expenditure Requisition to cover this excess expenditure to be submitted and an explanation of the reasons for the excess to accompany the requisition and to be attached to the schedule of requisitions submitted to the Board for their information.

(b) Exhibition Building

Attention was also drawn in the memorandum to the fact that authority was given for an expenditure of £200,000 on works west of the Warwick Road bridge carried out for Earl's Court Ltd. and that, in accordance with a previous decision, this sum had been increased to £222,000 at the request of Earl's Court Ltd. It was reported that, as far as could be foreseen, the sum of £222,000 would cover the cost of the works

Modernisation of Signalling – Northern City Line

Mr Cooper submitted a memorandum dated 27 January asking authority for the modernisation of signalling on the Northern City Line between Drayton Park and Finsbury Park, at a total cost of £5,500 of which £1,000 would be spent during the financial year 1936-37. It was noted that, including this proposal, only £16,100 compared with the anticipated sum of £20,000 would be spent on the modernisation of signalling during the current financial year.

It was decided that authority should be given for the commencement of the work of modernisation of signalling between Drayton Park and Finsbury Park, Northern City Line, a Special Expenditure Requisition to be submitted.

New Works Programme 1935-1940 – Individual Door Control on Existing Tube Cars

Mr Graff Baker submitted a memorandum dated 5 March together with a statement setting out details of the estimated cost, amounting in total to £95,298 of fitting individual door control on tube cars to run on the Central London, Bakerloo and Northern City Lines on completion of the New Works Programme 1935-40. It was decided:

- (a) That the question of fitting individual door control on existing tube line cars be deferred for three years, with the exception of (b) below.
- (b) That individual door control should be provided on 50 trailer cars on the Bakerloo Line, if necessary, to ensure the uniformity of rolling stock for one of the two Bakerloo Line services. A Special Expenditure Requisition to be submitted in respect of expenditure for this purpose.

MEETING No.161 HELD ON 15 MARCH 1937

Stanmore Line Signalling: Tender Opened

It was reported that a tender for the alterations to signalling on the Stanmore Line had been received from the Westinghouse Brake & Signal Co Ltd. It was decided that this tender should be referred to Mr Cooper for examination and report, it being considered, however, that the excess of the tender over the Board's estimate should be reduced.

London Passenger Transport Board Bill 1936-37

(a) Elstree Extension

Mr Cooper submitted a drawing showing the general arrangement of the northern end of the Elstree Extension. This was approved for Parliamentary purposes subject to the sidings between Elstree and Aldenham stations being shown on the plan.

(b) Aldenham Station

Mr Cooper submitted a sketch plan showing the proposed layout of the low level station at Aldenham. This was approved for Parliamentary purposes.

Hillingdon Station Reconstruction

Mr Cooper reported that it was considered preferable from a traffic point of view to place the proposed new station at Hillingdon on the east side of the bridge carrying Western Avenue over the railway and Mr Holden submitted a drawing showing a rough sketch for a station on this site.

It was decided that the scheme shown on the sketch should be approved in principle, subject to the cost of a station on this site being no more expensive than that of a station alongside the railway and to Middlesex County Council agreeing to the construction of the station in the position proposed. A further report on these two aspects to be submitted as soon as possible.

Highgate Station

Mr Holden submitted a drawing showing the proposed general arrangement of the interchange station at Highgate. It was decided that the scheme shown on this drawing should be approved in principle and that it should be referred to Mr J.P. Thomas for consideration from a traffic point of view.

The Vice Chairman directed Mr Holden to consider providing doors of the swivel type used in Italy and to providing glass panels in the front of the building fronting the street. The Vice Chairman further directed that accommodation for storing cycles should not be provided at the high level entrance in Archway Road.

Finchley Central Station Reconstruction

Mr Holden submitted drawings showing at street level and at ticket hall and platform levels the proposed general layout of Finchley Central station.

It was decided that the arrangements shown on these drawings should be referred to Mr J.P. Thomas for consideration and report from the point of view of station facilities and that in particular he should give consideration to the desirability of providing two passimeters instead of one as shown on the drawing.

Hainault Station

It was reported on behalf of the Chief Engineer that the City Corporation would supply a plan of the proposed airport in the neighbourhood of Fairlop as soon as one was available.

Mr J.P. Thomas reported that he had given some consideration to alterations to the proposed scheme for working train services round the Grange Hill loop. It was decided:

- (a) That consideration should be given to signalling one of the tracks through Grange Hill depot for the reversing of trains.
- (b) That consideration should be given to reversing trains on the proposed branch line to the City Corporation's airport.

Metropolitan Line Compartment Stock: Seat Risers

Mr Graff Baker submitted a memorandum dated 12 March reporting that it was difficult in existing circumstances to secure cleanliness under the seats of Metropolitan Line compartment stock and that it was proposed that the compartment stock to be retained should be fitted with steel risers to avoid litter getting under the seats, which was the most economical way of dealing with the problem. It was noted that the cost of fitting seat risers to the 210 modern coaches would be £2,821 and, for the 62 coaches for locomotive hauled trains, £862, and that the economy at the rate of £400 per annum, or £700 per annum taking into account the increased staff which would otherwise be necessary, would follow.

It was decided that the proposal set out in Mr Graff Baker's memorandum should be approved and that the allocation of the expenditure should be agreed with the Comptroller and Accountant.

Escalators – Warning Notices

A memorandum dated 12 March was submitted on behalf of the technical and Safety Committee reporting that consideration had to be given to the prevention of fires in escalators and recommending that a notice requesting the public not to drop cigarette ends on escalators should be displayed on each escalator in a conspicuous position.

It was decided that a slip reading: "Fire – do not drop cigarette ends on the escalator" should be posted across the existing warning notice displayed on escalators and that when the warning notice is reprinted this legend must be added permanently to the notice. The paragraph dealing with the provision of stairs being in small type so as to make room for the paragraph dealing with fire.

Mr J P Thomas reported that it was desirable to bring more permanently to the notice of the public the warning against using the emergency switch for stopping the escalators except in cases of need and submitted a new draft notice to be displayed on escalators.

It was decided that consideration of this matter should be deferred to the next meeting when a complete scheme would be submitted for all the necessary notices on the new escalators to be constructed in the near future.

MEETING No.162 HELD ON 22 MARCH 1937

Bakerloo Line Platform Lengthening

Mr J.P. Thomas submitted a memorandum dated 19 March upon the lengthening of the Bakerloo Line platforms. It was decided to record that the decision to lengthen to Bakerloo Line platforms to accommodate seven and not eight car trains took into account the fact that entrances and exits of the stations in the Central area were mainly at the south end and so that if, after completion of the present programme of new works, additional traffic requiring the operation of eight car trains was secured, the stations would need to be double-ended for which no money is available at the present time.

Chorley Wood – Passing Loops

Mr J.P. Thomas submitted a memorandum dated 18 March reporting that it was considered desirable by the officers both of the London & North Eastern Railway and of the Board that, upon the electrification of the lines between Rickmansworth, Chesham and Amersham, passing loops to facilitate working should be provided on both “Up” and “Down” lines at Chorley Wood as shown on a drawing that was also submitted. It was noted that the total cost of the proposed works was estimated at £30,130. The arrangement shown on the drawing was approved.

Fairlop Plain – Proposed Airport

Mr Cooper submitted an ordnance sheet on which was shown the land at Fairlop which the City Corporation were proposing to purchase for the construction of an airport, together with covering memorandum dated 16 March. It was noted that this land lay between Barkingside and Fairlop stations and that any branch connecting the Grange Hill Loop with the proposed airport would join the loop between those stations.

It was decided that the proposal to use such a branch line as a siding for the regular reversing of trains should not be pursued since its location would be too far south to take the place of the proposed reversing facilities at Hainault.

Escalators – Warning Notices

Mr Graff Baker submitted photographs of the general arrangement of notices on escalators. It was decided to approve the proposal to display in a separate frame the warning notice against using the emergency switch for stopping the escalators except in an emergency.

It is here recorded for convenience that the Vice-Chairman accompanied by Mr R.J.M. Inglis (Engineer) and Mr H.W.J. Powell (Estate and Rating Surveyor (Southern Area) LNER), Mr A.R. Cooper, Mr J.P. Thomas, and Mr J.H.H. Mason and by Mr Holden and Mr Angus at Finchley Central, East Finchley and Highgate, visited the undermentioned stations on the Edgware, High Barnet and Alexandra Palace (LNER) Lines on 18 March 1937. The following decisions were taken:

(1) Mill Hill (The Hale) Station

Mr Cooper submitted alternative schemes for the reconstruction of Mill Hill (the Hale) Station to accommodate two tracks. It was decided:

(a) That the scheme should be drawn out on the following bases:

- (i) The bridge carrying Bunns Lane over the railway remaining unaltered.
- (ii) A temporary ticket hall being constructed north of the LNER platforms so that it will be possible to provide at a later date a joint station with the LMS if desirable.

The LNER representatives undertook to submit a track plan indicating the location of the lengthened platforms.

(b) That the LNER should inform the road authorities that it is not necessary to alter the road bridge in connection with the alterations to the railway but that, if the road authorities desire to widen the bridge, the widening could be carried out in conjunction with the railway works.

(2) Mill Hill East Station

Mr Inglis submitted a LNER plan for the reconstruction of Mill Hill East station to accommodate two tracks. It was decided that if Mill Hill East station is retained, a plan for minor improvements in the following bases should be prepared:

- (a) The station structure remaining unaltered.
- (b) A subway being constructed under the tracks as shown on the plan.
- (c) The platforms being built of timber.
- (d) Shelters being provided on the platforms.
- (e) The hoardings on either side of the bridge carrying the railway over Bittacy Hill being removed and a continuous row of neat hoardings being provided between the bridge and the station building behind the up platform.
- (f) Shrubs being planted at the foot of the hoardings.
- (g) All fences being removed, but plates being inserted in the ground to mark the limits of LNER ownership.
- (h) All or part of the existing shrubs being removed to enable the forecourt to be enlarged for use as a car park if required.
- (i) The two huts at present adjoining the station entrance being demolished and reconstructed one on either side of the entrance to the forecourt.

The possibility of constructing an intermediate station between Mill Hill (The Hale) and Mill Hill East was reviewed. It was considered that Watford Way was too near Mill Hill (The Hale) to prove a satisfactory site for a new station.

The Vice Chairman directed Mr J.P. Thomas, in conjunction with the officers of the LNER, to give consideration to providing a station at Page Street or at Dole Street and to closing Mill Hill East in view of the large area around Mill Hill East station was reserved as open space and barracks, in view of the fact that the houses in the neighbourhood of Mill Hill Park would be more conveniently served by bus services to a station on either Page Street or Dole Street and, in view of the short distance between Mill Hill East station and Finchley Central, where a much better service of trains was available.

(3) **Finchley Central Station**

Mr Holden resubmitted drawings showing at street level and at ticket hall and platform levels the proposed general layout of Finchley Central station. It was decided:

- (a) That the arrangement shown on the drawing should be approved in principle, subject to:
 - (i) The ticket hall being opened up and an additional entrance provided at the south-east corner.
 - (ii) Securing agreement with the local authority for a contribution of 50% towards the cost of the subway, if it is required for public use and consequently a wide subway is constructed.
 - (iii) The staircases leading from the ticket hall to the platforms being 10ft in width, dispensation being obtained from the Ministry of Transport to the platforms being of less than the standard width where the staircases abut on the platforms if the platforms cannot be lengthened at the south side.
 - (iv) Mr Powell approving the number and size of the shops in the arcades.

Mr Holden to send Mr Inglis and Mr Powell plans revised on the above bases as soon as possible so that they may obtain approval of their Company to the scheme.

- (b) That an agreement with the local authority to cover the arrangements for bus pull-ins and pavements should be drawn up.

(4) **East Finchley Station**

Mr Cooper submitted a drawing showing the proposed new bridge carrying additional tracks over the Great North Road at East Finchley and Mr Holden submitted rough sketches of a suggested design for the new ticket hall. It was decided:

- (a) That Mr Holden should prepare drawings for the station buildings constructed as a continuation of the brick abutment of the new bridge, the ticket hall being provided with a projecting front in glass and metal.
- (b) That roofing, approx. 150 long, should be provided on each of the platforms with waiting rooms at one end on the lines of Surbiton Station.
- (c) That the subway under the platforms should be as straight and shallow as possible.

- (d) That Mr Buller should negotiate through an agent for the purchase of two cottages south of the railway line between the "Old White Lion" Public House and the entrance to the goods yards for rehousing part or whole of the public house.

(5) Cranley Gardens Station

It was decided that Mr Heaps should prepared a scheme of improvements to Cranley Gardens station costing not more than £1,500, on the following bases:

- (a) The existing ticket hall being retained up to the sills but being finished off in concrete and glass above that.
- (b) A passimeter being installed.
- (c) A smaller concrete building being constructed at the north end of the station to replace the existing ticket collector's shelter.
- (d) A canopy being erected outside the ticket hall and possibly outside the ticket collector's building.
- (e) The existing railings around the station being retained.
- (f) The platform remaining as at present but consideration being given to converting certain of the waiting accommodation on the platforms into shops and stall and incorporating the existing tobacconist's kiosks into those buildings.

(6) Highgate Station

Mr Holden resubmitted a drawing showing the proposed general arrangement of Highgate station. It was decided:

- (a) That no draw-in for buses should be provided at this station.
- (b) That the building line of the station structure in Archway Road should be 10 feet behind the back of the pavement line.
- (c) That Mr Powell should give consideration to developing, at a later date, a scheme for a station with flanking shops at the junction of Muswell Hill Road and Archway road and that Mr Cooper should review the proposed position of the escalators so that they may fit in with such a scheme.

(7) Crouch End Station

It was decided that Mr Heaps should prepare a cheap scheme for improvements to the ticket hall at Crouch End station on the following bases.

- (a) The present station structure to remain but the building to be opened up inside.
- (b) The existing entrance to the ticket hall to be closed and offices to be provided at the south end of this structure.
- (c) Two new entrances to be constructed in the position of the existing two windows on the right of the present entrance and in the corresponding position at the back of the station building and a passimeter to be installed.