

THE NORTHERN LINE EXTENSION – A HISTORY

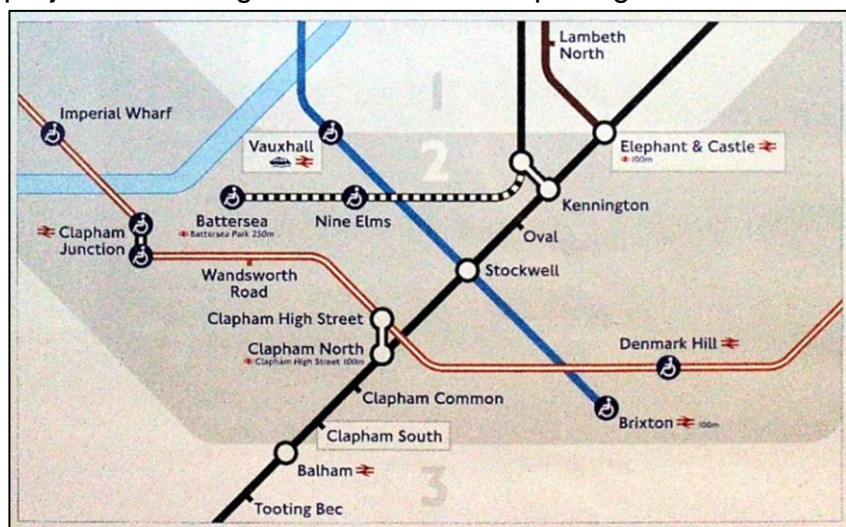
by Kim Rennie

INTRODUCTION

The Northern Line Extension (NLE) from Kennington to Battersea opened on Monday 20 September 2021. The origin of the line was a desire to serve the area around the former power station (disused since 1983) which was being redeveloped as part of a regeneration project (the 'Vauxhall Nine Elms Battersea Opportunity Area') involving new housing, offices and retail. The line would be part-funded by the United States Government, which was moving its London embassy to Nine Elms from the old Grosvenor Square site in Mayfair. A public consultation exercise resulted in four proposals:

- Route 1 – A station at Battersea and no intermediate station.
- Route 2 – A station at Battersea and an intermediate station at Nine Elms south of the Network Rail railway arches.
- Route 3 – A station at Battersea and an interchange with the Victoria Line at Vauxhall.
- Route 4 – A station at Battersea and an intermediate station at Nine Elms north of the Network Rail railway arches.

In each case, the NLE would form a double track spur connected to the existing Northern Line Charing Cross branch at Kennington. In the event, TfL opted to build Route 2 of the extension with a station at Nine Elms and at Battersea. Though the routing via Vauxhall was the second most popular choice, this would have increased congestion on an already busy section of the Victoria Line. Potential overcrowding from National Rail (NR) passengers is the reason the line was not projected to terminate at Clapham Junction, though TfL do not rule this out in the future if Crossrail 2 ever gets the go-ahead and have reserved a route under Battersea Park. A public inquiry was carried out from November to December of 2013 and following this, in Spring 2014, the planning inspector recommended the project go ahead. Final approval was given by the Secretary of State for Transport in November 2014 and construction began in 2015. The contract for construction was awarded to consortium Ferrovial and Laing O'Rourke (FLO). The total cost of the works is estimated to have been to £1.1bn, with £1.0bn of this being contributed by the private sector, and came in £130m under budget. TfL claim that the extension will support around 25,000 new jobs and 20,000 new homes, and the construction itself supported around 1,000 jobs, including 65 apprenticeships. The NLE was originally scheduled to open in December 2020 but changes to the station design at Battersea to increase capacity delayed the project and brought about a revised opening date of autumn 2021.

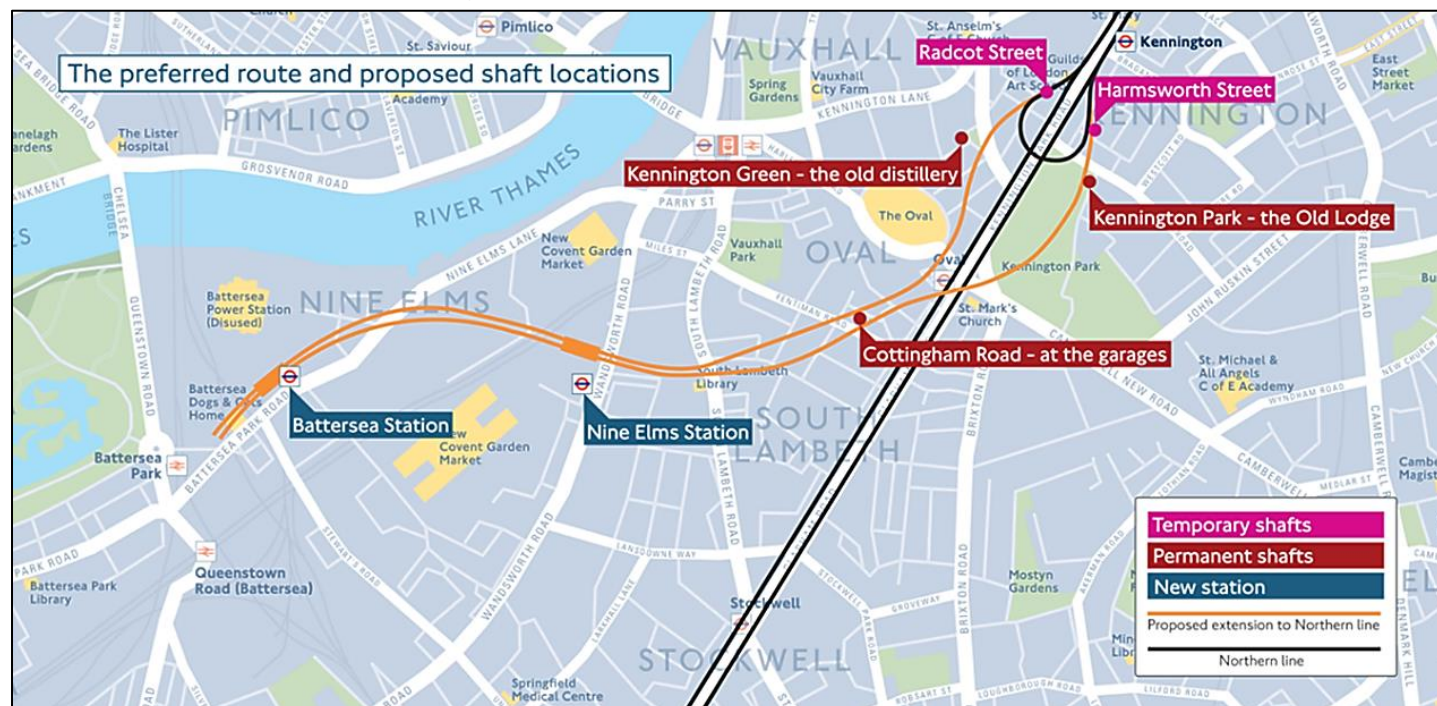


Left: Part of a poster dating from 2013 with the original name of the terminus as plain 'Battersea' and the intention for the NLE to be in Zone 2.

CONSTRUCTION

Preparatory work had started as early as 2010 with ground investigation carried out to determine the soil and subsoil conditions along the line of route. Construction proper began in 2015, and in 2017 two 100m-long Tunnel Boring Machines (TBMs) *Amy* and *Helen* were delivered at the Battersea excavation site and craned down to tunnel level. The TBMs were named after Amy Johnson, who was the first female pilot to fly solo from Britain to Australia; and Helen Sharman, the first British astronaut, and were chosen through a competition held among local schoolchildren. The two TBMs began the main tunnelling from April 2017 and this was completed in the November of the same year when TBM *Amy* broke through into the Kennington Green shaft. 30,000 tonnes of spoil were excavated, and this was moved by a system of conveyers to barges on the Thames. These then delivered it to a farm in East Tilbury where it was used to develop arable farmland. The main running tunnels were initially wholly lined by pre-cast concrete

segments, but those in the station areas were later removed during the construction of the cut-and-cover 'station boxes'. The areas around the step-plate junctions were finished using the spray concrete-lining technique, as were the short tunnels between the loop and Kennington Green and Kennington Park shafts. The tunnels are larger than the standard 'Tube' bore at 5.2m to allow a walkway alongside the track for maintenance and emergency purposes.



Above: A map produced early in the consultation process showing the location of proposed shafts to be dug during the construction period. The shaft at Cottingham Road was not proceeded with.

Photo: Author's collection

The laying of the concrete slab track was complete by May 2019 and the installation of conductor rails then began. The first engineering train ran the length of the branch on 14 June 2019 to deliver 750m of power cable. 1995 Tube Stock began operating out-of-service for testing purposes from Christmas 2020. Ventilation fans at the Kennington Park and Kennington Green shafts were first switched on in December 2020 and January 2021 respectively. Station fit-out was largely finished in February 2021, power and signalling testing were largely complete by May 2021, and trial operations and train and station staff familiarisation commenced in July 2021. A number of practice exercises were conducted before opening, including trial emergency evacuations, to test safety procedures.

ROUTE

The new line is carried in twin 'Tube' tunnels which run south-west from the existing Kennington station to Battersea Power Station via Nine Elms. At Kennington, southbound trains are routed from Charing Cross branch platform 2 into the existing reversing loop, from where a step-plate junction (No.15 points) allows access to the new alignment. The southbound line passes below Kennington Park and then under the existing Morden line tunnels at Oval and both tunnels then converge and go under the Victoria Line between Vauxhall and Stockwell. Just after Nine Elms, the route crosses beneath the South Western main line from Waterloo to terminate within walking distance (250m) of Battersea Park NR station. Both stations on the branch have an island platform layout. Neither have been fitted with platform edge doors, though there is 'passive provision' for their installation at a later date. At Battersea Power Station, a diamond crossover layout (Nos. 4 & 5 and Nos. 6 & 7 points) on the approach allows trains to terminate and depart from either of the two platforms. There is no facility for trains to stable or reverse in the platform overrun tunnels. The original intention was to have 180m overrun tunnels here which would have allowed trains to stable within them but following the cancellation of the JNAT (Jubilee and Northern Additional Trains) project (q.v.) these were reduced to just 20m. The northbound line skirts the edge of the Oval cricket ground before re-entering the Kennington Loop via a second new step-plate junction (No.23 points) and regains the existing Northern Line at Kennington Charing Cross branch platform 1. A number of access shafts were dug during the construction period and those at Kennington Green and Kennington Park have been retained for ventilation and emergency intervention point (IVP) purposes. Included at these locations are 'refuge' rooms for use by any passengers unable

to climb the stairs to the surface in the event of an evacuation. Temporary shafts were also sunk at Radcott Street and Harmsworth Street to facilitate the creation of the two step-plate junctions. A further permanent shaft was proposed at Cottingham Road, but this was successfully opposed by local residents. According to a report published by Lambeth Council, the cancellation of this shaft meant that the running tunnels had to be built wider at 5.2m (17ft) to accommodate an emergency walkway. If true, this would suggest that the construction of traditional 3.6m (11ft 8in) diameter 'Tube' tunnels is no longer permissible unless intervention access points can be provided at regularly-spaced intervals. Three cross-passages link the two running tunnels – No.1 and No.2 between Kennington and Nine Elms, and No.3 between Nine Elms and Battersea Power Station. The overall length of the extension is 3.14km (2 miles) and the distances between stations are: Kennington to Nine Elms 2.10km, and Nine Elms to Battersea Power Station 1.04km. Scheduled running time between Kennington and Nine Elms, and between Nine Elms and Battersea Power Station, is 2¼ minutes in each case.



Above: Kennington Park ventilation shaft on the southbound line.

Below: Kennington Park IVP looking north on the SB line and marked by a blue light.



Above: Kennington Green ventilation shaft on the northbound line.

Below: Cross-passage No.1 (to the right) looking south on the SB line. Note the gaps in the conductor rails and non-slip flooring at both sites.



All photos: Keith Ward

TRACTION CURRENT

Two additional substations have been built at Nine Elms and Battersea. At both stations, and also at Kennington platforms 1 & 2, the usual headwall tunnel telephones are replaced by traction current plungers and/or section ahead and section in the rear plungers. Although performing a similar function, no telephone handset is provided, and the onus is on the user to contact the Service Controller by other means after switching off current in an emergency. This is in part because traditional twin tunnel telephone wires are no longer fitted along the tunnel walls. Section switches at Battersea Power Station

allow traction current in platform 2 to be isolated (e.g. to accommodate a defective train), and other section switches at Kennington permit the branch to be isolated from the loop if need be. Part of the NLE is also fed from the existing Lambeth substation. The traction current sections are as follows:

SOUTHBOUND

Lambeth to Nine Elms southbound †

Nine Elms to Battersea southbound

NORTHBOUND

Battersea to Nine Elms northbound

Nine Elms to Lambeth northbound †

† Also feeds one half of the Kennington Loop.

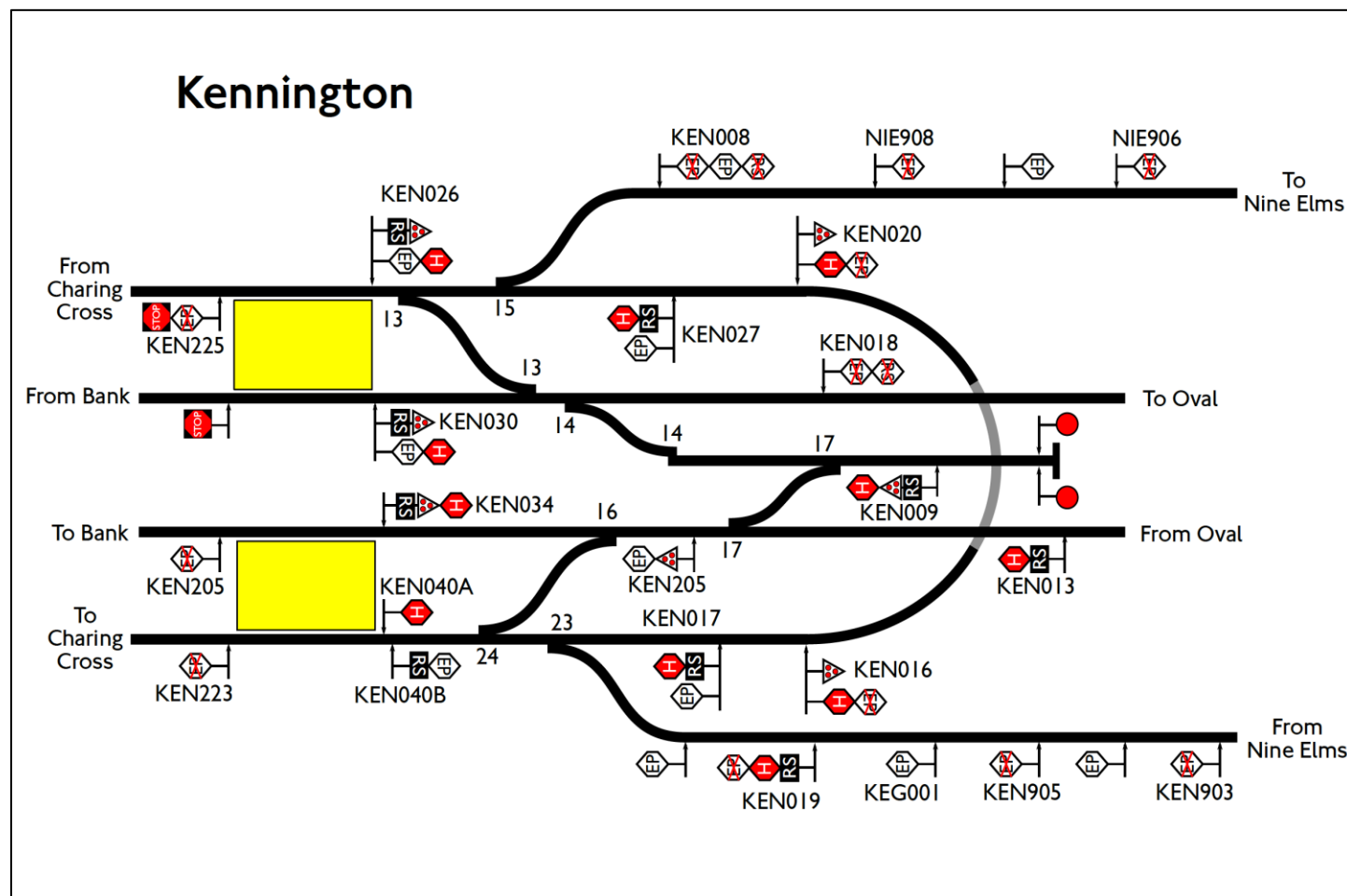
Right: The southbound running tunnel looking south towards Nine Elms station with concrete slab track and the emergency walkway on the right. The Rail Gap Indicator is illuminated to show that traction current is switched off on the Nine Elms to Battersea southbound section.



Photo: Keith Ward

SIGNALLING

The branch is signalled to the modern TBTC standards and is the only part of the Northern Line to have never had conventional colour light signalling and trainstops. An additional signalling desk and Vehicle Control Centre central computer (VCC9) are provided at Highgate to control train movements upon it. The VCC uses Third Generation TBTC equipment (as opposed to Second Generation on the rest of the line). 'Route secure' facilities are available on all sets of points. The local 'cabin codes' for Battersea Power Station and Nine Elms are BPS and NIE. Signalling and control of the extension was commissioned to Highgate Service Control Centre from 25 June 2021.



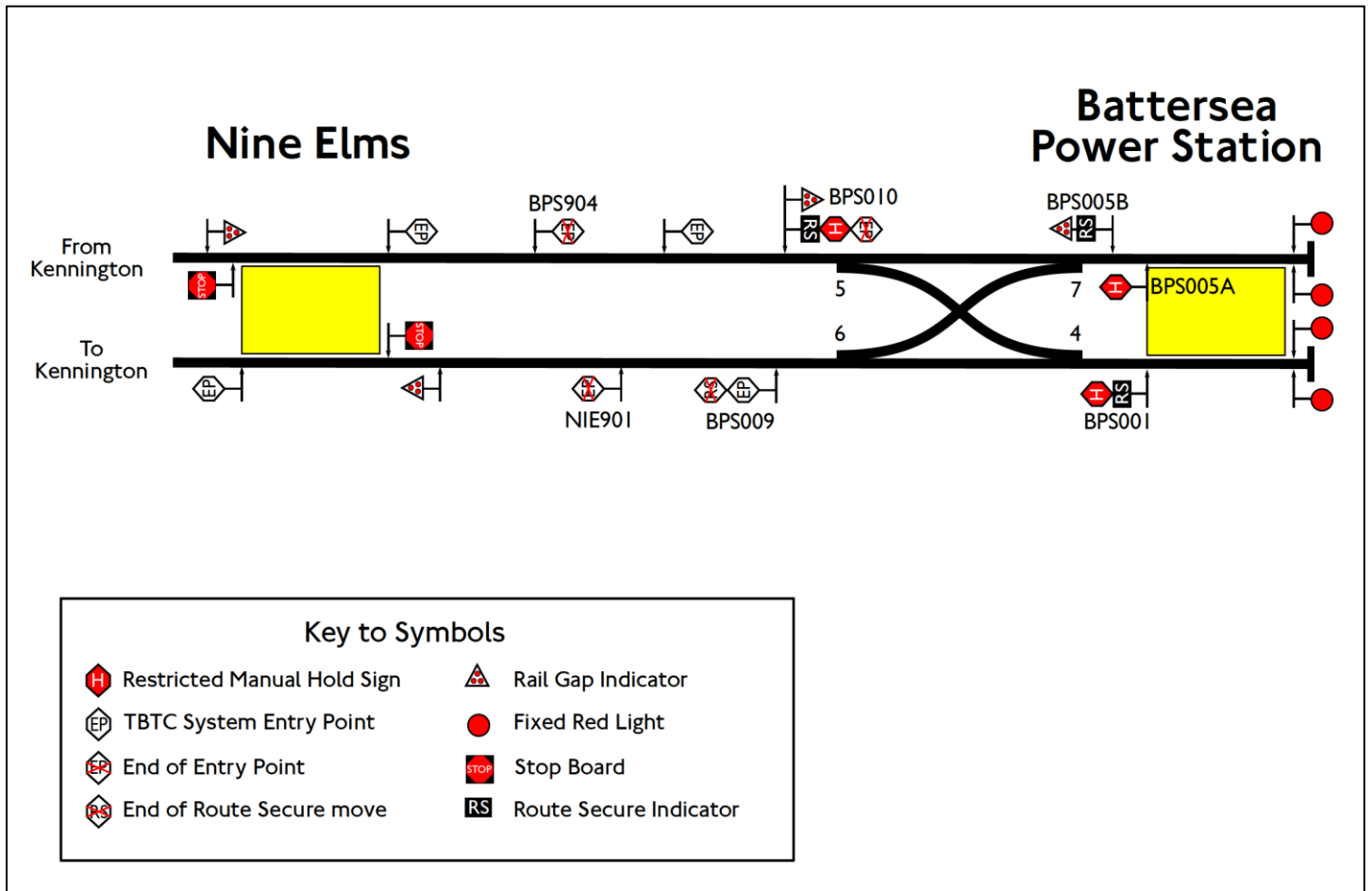
Kennington platform numbers:

1 – Northbound Charing Cross.

2 – Southbound Charing Cross.

3 – Northbound City.

4 – Southbound City.



Diagrams: Thomas Crame

TICKETING

The new stations are both in Zone 1, whilst Kennington was reclassified from Zone 2 to boundary Zone 1/2 from 16 May 2021. This was to prevent what would otherwise have been a zonal ticketing anomaly at Kennington and also a condition of the line's private sector funding. The stations have been allocated National Location Codes (NLC) 0831 (Nine Elms) and 0832 (Battersea). The new stations actually appeared as destination options on the touchscreens of all LU Passenger Operated (ticket) Machines from 5 September 2021, as such a software update can only be made at the time of a fares revision. Battersea Park NR station, which is served by Southern services (and the occasional 'Parliamentary' London Overground train) has become a 'Cross London Interchange Station' with Battersea Power Station. This allows NR passengers with tickets endorsed with a † symbol to transfer between the two when making journeys across the capital. Whether many will take advantage of this option is questionable though, given the distance to be walked, and it is probably just as quick to travel via Victoria NR. Battersea Power Station is also an Out of Station Interchange (OSI) with Battersea Park and Queenstown Road (Battersea) NR stations.



Above: First day platform tickets issued at Nine Elms and Battersea Power Station.

STATIONS

KENNINGTON



To cater for an increased number of passengers changing between the Bank and Charing Cross branches at Kennington, four additional cross-passages have been created linking northbound platforms 1 & 3, and southbound platforms 2 & 4. This required Bank branch trains to non-stop between May and September 2019. The work was substantially complete by April 2021 and these new public areas have been given replica 1920s white, black & blue tiling to match the existing Holden-style décor.

Above: One of four additional cross-passages at Kennington provided for an expected increase in passengers changing between the Charing Cross and Bank branches. This is northbound platform 1 (Charing Cross branch) looking north, with a new passageway leading to northbound platform 3 (Bank branch) on the right.

NINE ELMS

Nine Elms station is situated on Wandsworth Road at the site of a former Sainsbury's car park and was designed and built by consortium Ferrovial Agroman Laing O'Rourke. Construction was authorised in 2014 and carried out between 2015 and 2021. The station was built using the cut-and-cover 'station box' method, ensuring easy access during construction.

The surface building is of a rectangular design and predominantly faced with grey stone cladding. The front elevation has four full-height concrete columns, equally spaced, which provide for three street level entrances, each with a pair of Bostwick gates.

On the west and east sides of the building, and set one bay back, are two more entrances. Above each entrance are vertically framed windows, three sets of which each bear a roundel symbol. A standard white-on-blue illuminated station name fascia lettered 'NINE ELMS STATION' appears over each entrance, making five in total. Above these is a large projecting upswept concrete canopy, finished in cream with small porthole downlights, and extending over both the front and side entrances.

The roof is flat and allows for further commercial development above and around, with 479 homes and commercial space planned.

Surprisingly, a standard projecting modern 'silhouette' external LU roundel has not been provided, but rather one of the rarer freestanding 'totem' designs, where the symbol sits atop a wide black column that carries local wayfinding information. The ticket hall has a double-height ceiling and is equipped thus:

| Equipment | Amount | Device Nos. |
|--------------------------------------|--------|-------------|
| Touchscreen ticket vending machine | 5 | 35 to 39 |
| Slimline reversable electric E2 gate | 9 | 40 to 48 |
| Wide aisle gate | 2 | 21 to 22 |

Inside the gateline is the Station Operations Room, plus three escalators and a lift leading to and from platform level. Details of these are:

It is thought there is another, non-

| Asset | Make/Model | Between |
|--------------------|------------|----------------------------|
| Escalator No.1 | Otis 520E | Street level and platforms |
| Escalator No.2 | Otis 520E | Street level and platforms |
| Escalator No.3 | Otis 520E | Street level and platforms |
| Lift No.1 (Lift A) | Kone | Street level and platforms |

public, lift provided for firefighters' use. Platform numbering follows the usual LU convention with '1' northbound and '2' southbound. The escalator bank leads down to a wide

central concourse serving both platforms. This area has large concrete support columns and crossbeams and gives an impression of a smaller version of Canary Wharf. Finishes throughout the station are predominantly unpainted concrete, polished stainless steel and black stone cladding, with ceilings of slatted wood. The platform height here, and at Battersea, is level with the floor of trains, and obviates the need for 'humps'.

Signage includes the usual linear enamel platform name frieze and modern 'silhouette' roundels seen across much of the network. Platform seats are of the standard grey perforated metal 'Centro' and 'Toro' bench design produced by manufacturer Hille for TfL rail modes ('Centro' is bracketed from a wall, whilst 'Toro' has support legs). A permanent artwork by Samara Scott was to be installed in the ticket hall area but ended up being cancelled for technical reasons. A new commission will take place at a future date. Associated changes to the local area include new pavements, tree planting and increased cycle parking. To improve access to the station from the north, a new walking route has been created by opening-up Arch 42 in the Network Rail South Western main line viaduct.

BATTERSEA POWER STATION

Battersea Power Station (the second 'station' in the name will be an everlasting annoyance) was also designed and built by Ferrovial Agroman Laing O'Rourke, plus with one entrance provided by Grimshaw Architects. The station is located on Battersea Park Road and was originally to be called plain 'Battersea' until the developers of the power station site lobbied for the change. Construction was also authorised in 2014 and took place from 2015 until 2021. The same 'station box' method as at Nine Elms was used here and also provides for 'airspace' commercial development in the years ahead. Two entrances, designated as 'Eastern' and 'Western', lead to a single ticket hall at a mezzanine level. At present, only the east entrance has opened, but the expectation is that the other will come into use sometime in 2022. The Western entrance will be a grander affair at the southern end of a new 'High Street' being built within the power station site. The Eastern entrance is of single storey construction, with glass or vertically ribbed concrete walls, and has one single pair of Bostwick gates. The cream shallow-pitched roof is overhanging and of an irregular geometric shape. Exterior signage consists of a standard blue fascia lettered 'BATTERSEA POWER STATION' and a freestanding pole-mounted modern 'silhouette' roundel. In addition, a large LU roundel is fitted to the south-facing wall and is internally lit at night. The Eastern entrance is effectively a lobby, with three escalators and a lift leading to and from a lofty mezzanine level ticket hall. This large single ticket hall, which will serve both entrances, has the following facilities:

| Equipment | Amount | Device Nos. |
|--------------------------------------|--------|-------------|
| Touchscreen ticket vending machine | 5 | 35 to 39 |
| Slimline reversable electric E2 gate | 12 | 40 to 51 |
| Wide aisle gate | 4 | 21 to 24 |

The area includes a public artwork called *Sunset, Sunrise, Sunset* by London-based Brazilian artist Alexandre de

Cunha. Commissioned by the *Art on the Underground* project. It consists of a 100m long ever-changing kinetic sculpture inspired by the obsolete technology of the rotating billboard and is installed at ceiling height along two sides. The ticket hall is host to several presently unlet tenants' premises and three yet to be commissioned ATMs.

A wall at the west end is false and will later be removed to allow access to the future Western entrance. On the 'paid' side, there is the Station Operations Room, two further lifts, and two banks of two escalators, each lead to and from the platforms. The present lift and escalator provision is:

| Asset | Make/Model | Between |
|--------------------|------------|---|
| Lift No.2 (Lift A) | Kone | Street level (Eastern entrance) and ticket hall |
| Lift No.4 (Lift B) | Kone | Ticket hall and platforms (south end) |
| Lift No.5 (Lift C) | Kone | Ticket hall and platforms (north end) |

The 'missing' lift numbers are accounted for by the yet to open Western entrance and (presumably) one or more unadvertised firefighters' lifts.

| Asset | Make/Model | Between |
|-------|------------|---------|
|-------|------------|---------|

| | | |
|-----------------|-----------|---|
| Escalator No. 1 | Otis 520A | Ticket hall and platforms (north end) |
| Escalator No. 2 | Otis 520A | Ticket hall and platforms (north end) |
| Escalator No. 3 | Otis 520A | Ticket hall and platforms (south end) |
| Escalator No. 4 | Otis 520A | Ticket hall and platforms (south end) |
| Escalator No. 5 | Otis 520B | Street level (Eastern entrance) and ticket hall |
| Escalator No. 6 | Otis 520B | Street level (Eastern entrance) and ticket hall |

Although both platforms are 'northbound' only, the numbers align with those at Nine Elms, with the south side being designated '2' and the north '1'. As with Nine Elms, the internal station décor is mainly of bare concrete and polished steel. Trackside walls are black and devoid of advertising. Ceilings overall are again mostly slatted wood, plus with areas of sawtooth coffered concrete above the ticket hall. The platforms are dominated by massive concrete support columns, but in order to accommodate the two sets of escalators they are less spacious than at Nine Elms and there are smaller concourses at each end instead.

The amount of seating is also reduced, but this will be less of a problem once services are ramped-up, as passengers will generally find a train in a platform waiting to depart. Lighting levels seems low by today's standards (and at Nine Elms), perhaps due to the use of energy-efficient lights. Modern 'silhouette' platform roundels are also installed here, but the station's more prestigious status means the continuous platform name frieze is back-lit instead of being rendered in vitreous enamel. There are no exit signs pointing towards Battersea Park or Queenstown Road (Battersea) stations, possibly because such interchange is not encouraged until the nearer Western entrance opens. However, the southbound line diagrams at Nine Elms have an area next to the Battersea Power Station name covered with a sticker, and so suggests that a reference to the NR stations will appear in the future. Seating is also of the 'Centro' or 'Toro' design. 'Rear cab clear' plungers and signs have been installed to allow for a more intensive reversing service utilising Train Operator 'stepping back' procedures but will not be used under the current timetable.

Northern Line

Working Timetable

58

19 September 2021
until further notice

A digital version of this Notice can be found on the Establishment Planning Sharepoint site at <http://transportforlondon.sharepoint.com/sites/EPTimetables/>

Private - for staff use only

Timetable

UNDERGROUND

TRAIN SERVICES

A new Northern Line Working Timetable (WTT 58) was introduced on Sunday 19 September 2021. Trains ran empty between Kennington and Battersea on this day and extra detraining staff were deployed at Kennington to ensure that no 'overstayers' got a preview of the branch. Passenger services commenced at 05.28 on Monday 20 September, but because of Covid-related delays to staff training, Instructor Operators were often used to crew trains between Kennington and Battersea. On Mondays to Fridays, the morning, mid-day, and afternoon service pattern is Battersea Power station to High Barnet or Mill Hill East via Charing Cross. After 17.00 most trains operate to Edgware via Charing Cross instead. Saturdays have a few early morning trains to Edgware but then the majority of services go to High Barnet or Mill Hill East.

The Sunday service is also predominantly to and from High Barnet or Mill Hill East. It is not possible for trains on the NLE to directly access the Bank branch (or vice versa). Two trains in total outstable overnight at Nine Elms and/or Battersea

Power Station to provide the early morning service. The alternative would be waiting for the branch to be populated by trains from depots and sidings at the north end of the line, which would lead to a later start-up. The platforms and locations used for outstabling varies during the week to allow for track patrols and litter-picking duties. The present intention is for service frequencies on the NLE to be doubled during 2022.

STABLING OF TRAINS ON THE NLE

| Overnight period | Battersea | | Battersea | |
|------------------------------------|---------------------------|--------------------------|---------------------------|--------------------------|
| | Power Station (Plat 1) | Nine Elms NB (Plat 2) | Power Station (Plat 2) | Nine Elms SB (Plat 2) |
| Sunday night / Monday morning | Train | – | Train | – |
| Monday night / Tuesday morning | Train | Train | – | – |
| Tuesday night / Wednesday morning | – | – | Train | Train |
| Wednesday night / Thursday morning | Train | Train | – | – |
| Thursday night / Friday morning | – | – | Train | Train |
| Friday night / Saturday morning | Train | – | Train | – |
| Saturday night / Sunday morning | Train | – | Train | – |

On Mondays to Saturdays these first two trains operate as shuttles, running from Battersea Power Station or Nine Elms to Kennington northbound platform 1, where they detrain if necessary (the first train arrives empty). They then reverse and run empty anti-clockwise via the loop to Kennington southbound platform 2. A second reversal then takes place, allowing them to re-enter service and return to Battersea Power Station. To facilitate a quick reversal in the Kennington platforms, both trains are 'double-ended' with a Train Operator in each cab. This is the first scheduled use of two members of train staff on one passenger train (excluding special events) since the withdrawal of the 1959 Tube Stock and abolition of Guards in 2000 (both also on the Northern Line). Two new signs at Kennington platform 1 reminds drivers on arriving shuttle workings to 'shut down' the train, stay in the cab, then contact the other driver to confirm that 'double-ending' can take place, and a 'rear cab clear' plunger and sign has been fitted on platform 2. A similar shuttle service also operates in the late evening on all nights. The shuttle trains are:

DOUBLE-STAFFED SHUTTLE TRAINS MONDAYS TO SATURDAYS

- Train 202 from 05.22 until 05.28 (Tuesdays and Thursdays only) and from 05.44 until 05.49.
- Train 201 from 05.32 until 05.37.
- Train 211 from 00.40 until 00.45 (Saturday excepted), from 00.42 until 00.46 (Saturday only).
- Train 212 from 00.49 until 00.55 (Tuesdays and Thursdays only).

SUNDAYS

- Train 211 from 23.48 until 23.55.

It should be noted that under the former conventional signalling system, trains could only traverse the loop in a clockwise direction. The total number of trains in service overall has increased from 95 in TTN 224/20 to 97 under WTT 58.

SERVICE INTERVALS

The daily service intervals on the branch in minutes currently are:

MONDAYS TO FRIDAYS

| | | | |
|--|--|--|--|
| 07 00 – 08 15 SB NB 10 9 – 11 | 08 15 – 09 15 SB NB 7 – 11 8 – 12 | 09 15 – 10 30 SB NB 10 – 12 10 – 12 | 10 30 – 16 30 SB NB 12 12 |
| 16 30 – 17 15 SB NB 9 – 11 9 – 11 | 17 15 – 19 15 SB NB 10 10 | 19 15 – 20 30 SB NB 9 – 11 9 – 11 | After 20 30 SB NB 12 12 |

SATURDAYS

| All day | |
|---------|----|
| SB | NB |
| 12 | 12 |

SUNDAYS

| Start to 07.30 | 07.30 – 10.00 | 10.00 – 22.00 | 22.00 to Close |
|------------------------|---------------|---------------|----------------|
| SB NB | SB NB | SB NB | SB NB |
| No service until 07.12 | 12 12 | 12 12 | 12 12 |

As part of the overnight changeover between timetable TTN 224/20 and WTT 58 on 18/19 September, Trains 201 and 202, which would in future be outstabled at Battersea on Saturday nights, were revised to start earlier from Golders Green depot on the Sunday morning and ran empty to Battersea Power Station to be in position to form the first two departures.

ROLLING STOCK

The NLE is served by the existing fleet of 1995 Tube Stock. The earlier intention was to order an extra build of 'cloned' 17x6-car trains for the Northern Line (and 10x7-car trains for the Jubilee Line) under the Jubilee and Northern Line Additional Trains project (JNAT). The JNAT was later 'paused' in October

2017 and then cancelled altogether in the November as an economy measure. TfL now believes that timetable enhancements on both lines can be carried out using the existing fleets of trains.

PUBLICITY

MEDIA

TfL issued a press release on 3 September 2021 announcing that the NLE would open on 20 September. This included a quote from Mayor of London Sadiq Khan which said: *“The two new stations at Nine Elms and Battersea Power Station are the first new stations on the Northern Line for 80 years. They will hugely improve connectivity between these two areas and the rest of London and play a major part in the capital's recovery from the pandemic by supporting thousands of new jobs, homes and businesses”*.

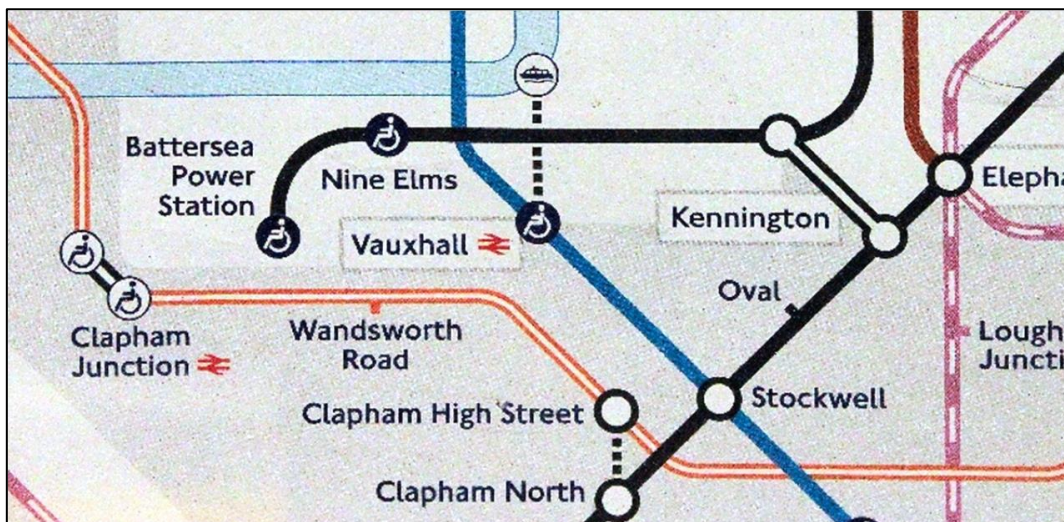
On the same day, the *Evening Standard* reported the forthcoming opening, though erroneously claimed it was the first extension to the Underground since the JLE in 1999. This seemed to stem from an initial error in a TfL press release which was then treated as an established fact in almost all further media coverage. In reality, the Piccadilly Line reached Heathrow Terminal 5 on 27 March 2008.

On 16 September, a TfL press release revealed a new version of the ‘Tube map’ (q.v.) featuring the NLE. The revised map was also mentioned that day on the *Metro* and *Evening Standard* websites. Twitter saw the new design critiqued quite severely as awkward and ungainly in the feeds of those such as Geoff Marshall, Mr. Tim Dunn, and BBC London transport correspondent Tom Edwards. The opening was covered in the 20 September edition of the *Evening Standard*, on the BBC and ITV London regional news programmes, and in a further TfL press release.

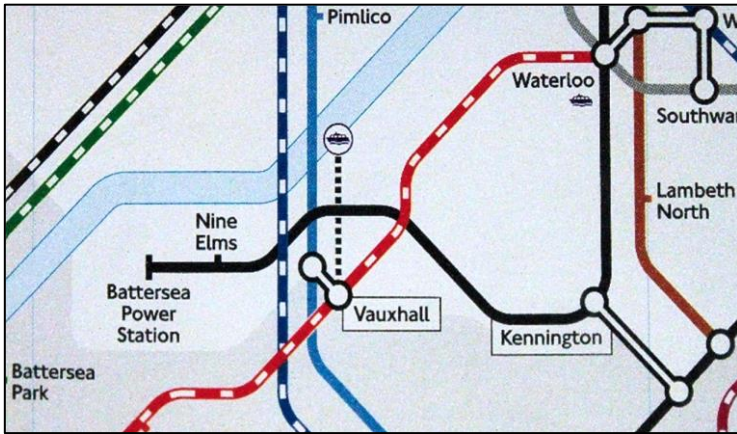
The following day, the NLE featured in the business sections of the ‘broadsheets’. TfL’s dedicated page in the *Metro* naturally mentioned the event, but strangely concentrated almost entirely on alleged new cycling and walking opportunities in the Nine Elms area. The 21 September *Evening Standard* had a guest column by Transport Commissioner Andy Byford in which he welcomed the new link. A bizarre claim in that newspaper was that the longer overrun tunnels had been cancelled to avoid disturbing the sleep of animals in the Battersea Dogs & Cats Home. The opening was also widely reported in the railway industry and enthusiast press.

MAPS

As mentioned above, TfL issued a preview of the new Underground diagram (‘Tube map’) on 16 September. In order to fit the NLE within Zone 1 some extra geographical distortion has been necessary, with Vauxhall station apparently now south of the extension. Kennington gains a very long ‘white line connector’ linking the Charing Cross and Bank branches, whereby before a single station tick sufficed, and there is no indication that trains to or from Morden ever operate via Charing Cross. The extended connector at Kennington, and the way the end of the NLE needlessly curves down at Battersea, have drawn much criticism from those who study such matters closely. No interchange is shown at Battersea Power Station with Battersea Pier, despite this appearing on the latest car line diagrams and station line diagrams. The new map went live on the TfL website from 17 September, together with an updated version of the ‘London’s Rail & Tube services’ diagram. By Sunday 19 December, both maps were appearing across the network in poster form, as were copies of the leaflet version ‘Tube map’.



Left: The September 2021 ‘Tube map’ poster. The NLE is shown passing above the Victoria Line north of Vauxhall when in reality it goes under it south of Vauxhall. Cross-platform interchange at Kennington now appears a lengthy walk. The ‘drooping’ end of the line has been derided by many commentators.

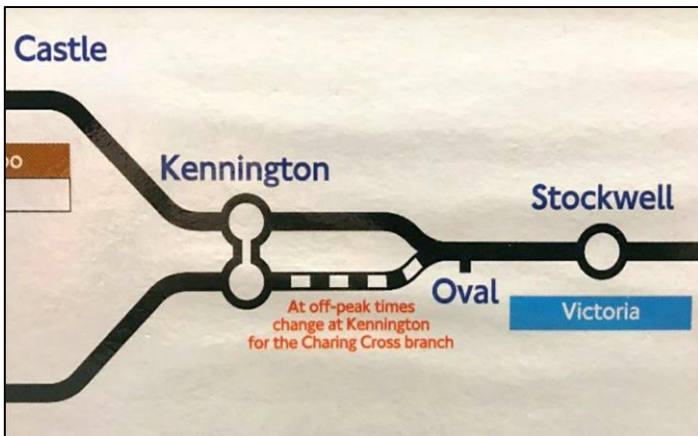


Above: A different arrangement as used on the September 2021 'London's Rail & Tube services' poster and with an ever longer 'white line connector'. The red 'pecked' line indicating South Western Railway trains now has four kinks instead of the straight diagonal on the previous map.

amendment sticker to show a wheelchair 'blob' at that station was never added. New car line diagrams were noted week-ending 11 September, and these reflected the restoration of regular through services to Mill Hill East by removing the 'pecked' section, but still do not show that this station is now step-free. The Kennington area is rearranged to show the NLE branch below the 'main line', whilst a separate 'pecked' section and red text continues to indicate that the majority of trains to and from Morden operate via Bank. Both Nine Elms and Battersea Power Station are naturally step-free from train to street, and the latter station is also an interchange with Battersea Pier. Elsewhere on the diagram, Archway (for Upper Holloway), Camden Town (for Camden Road), Euston (for Euston Square) and South Wimbledon (for Morden Road) are amended to show these OSIs with nearby stations. The fare zone label along the lower edge of the diagram is now a little confusing, reading from centre to right: Zone 1, Zone 1/2, back to Zone 1 again, and then Zone 2, Zone 3 and Zone 4.

CAR LINE DIAGRAMS

Since September 2006, Northern Line car diagrams have featured a hatched or 'pecked' section of line, a 'white line connector', and explanatory red text at Finchley Central to indicate that through services to and from Mill Hill East only operated in peak hours. Prior to the opening, the existing 1995 Tube Stock car line diagrams dated from November 2014. These had an amendment sticker placed over the section from Totteridge & Whetstone to East Finchley which changed the status of Finchley Central from step-free from platform to street (white wheelchair 'blob') to step-free from train to street (blue wheelchair 'blob'). This followed the installation of platform 'humps' at the latter. However, despite Mill Hill East having a MIP lift commissioned on 14 February 2020, a further



The Kennington area on the November 2014 car line diagram (Above, Left). From September 2021, the NLE is added as a spur below the 'main line' as an exclave of Zone 1 (Above, Right).

The November 2014 car line diagram with off-peak services to Mill Hill East operating as a shuttle (Below, Left). The September 2021 diagram has regular through trains reinstated (Below, Right), but there is still no step-free access shown at Mill Hill East.



STATION LINE DIAGRAMS

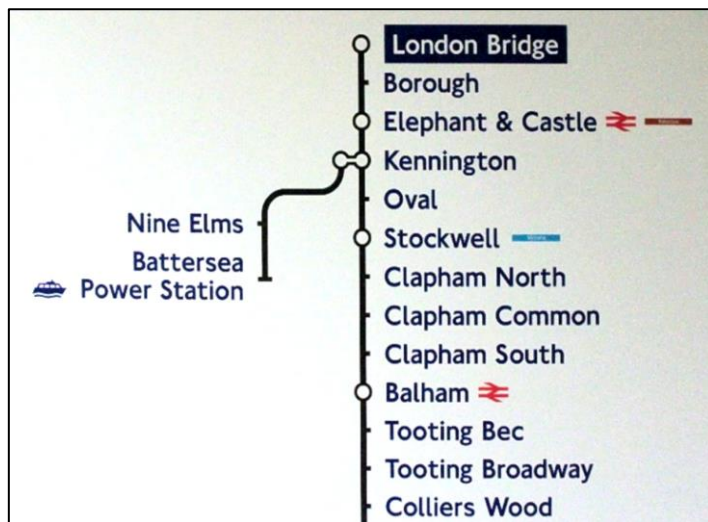
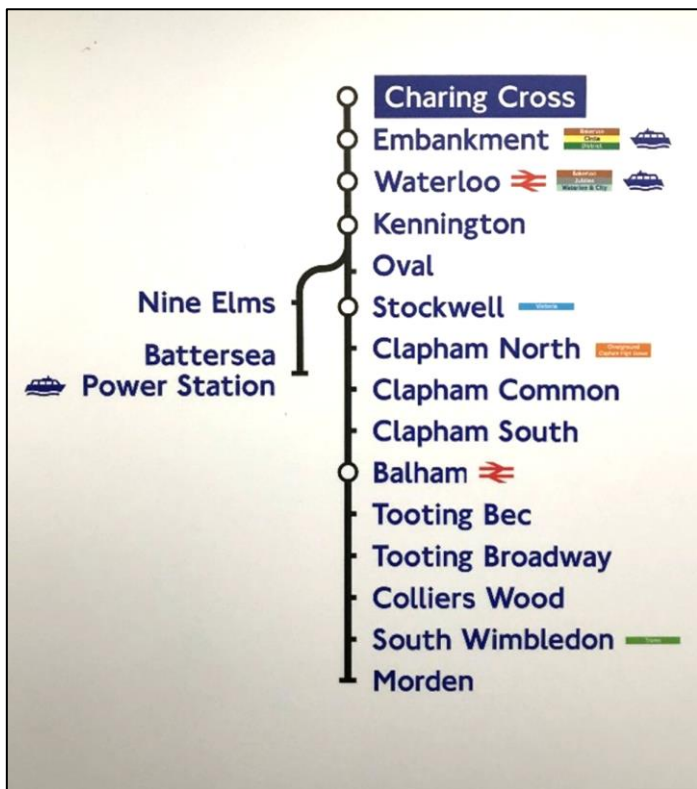
In mid-August 2021, vinyl overlays were applied to the existing 2000s-era enamel line diagrams at Brent Cross and Golders Green (and possibly other locations). Unfortunately, not only did their layout imply that the NLE always operated as a self-contained permanent shuttle to and from Kennington, with no through trains from either of the central area branches, but those at Golders Green (at least) actually showed the two new stations in the wrong order, with the line seemingly terminating at Nine Elms. Following widespread exposure and ridicule on social media, the overlays were quickly removed from all sites.

As would be expected, permanent enamel line diagrams have been installed on the NLE itself. They have purple Elizabeth Line interchange flag boxes at Moorgate and Tottenham Court Road, but these were covered over prior to opening day. These signs have a 'pecked' section between East Finchley and Finchley Central, even though this has just been removed from the paper car line diagrams.

By early-September, a new campaign had begun to amend the existing diagrams, with many southbound signs at stations on both the Bank and Charing Cross branches noted as being vinylled-over to show the extension. Unfortunately, further lack of attention to detail was again apparent, with some signs showing a river services 'boat' at London Bridge, and that the station is served by trains to Luton Airport, whilst on others this information was omitted.

On most vinyls, South Wimbledon gained a green 'Trams' flag box (for Morden Road tram stop), yet others had this left out. Two signs at Bank had an orange 'Clapham High Street' OSI interchange flag box at Clapham South instead of Clapham North. Another at London Bridge not only left off the tram interchange at South Wimbledon but also the last letter of the station name ('Wimbledo').

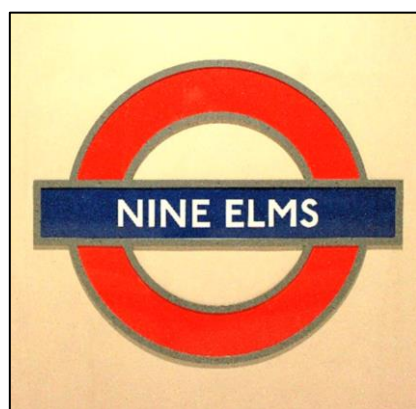
Further errors were later seen at Balham, Clapham Common, Clapham South and Tooting Broadway (and might have been at more places), where Battersea Power Station was written as 'Power Station Battersea'. It has been suggested that the number of recent mistakes is due in part to TfL abolishing its specialised signs department as a cost-cutting exercise. Some northbound diagrams were also observed as being overlaid to add OSIs at Archway, Camden Town and Euston. At time of writing (late-September 2021), only a few of the large diagrams located opposite platforms on the tunnel wall appeared to have been altered, and probably because of the need to arrange for overnight track access.



Left: A vinyl overlay at Charing Cross with the NLE shown as a through service diverging south of Kennington.

Above: An overlay at London Bridge indicating the need to change at Kennington for the NLE. Note that the Clapham High Street OSI at Clapham North has been omitted.

Opposite/Overleaf: Enamel line diagrams at Nine Elms (Left) and Battersea Power Station (Right). There are 'pecked' sections of line at Kennington and at Finchley Central, despite the latter being removed on the new car line diagrams. References to the Elizabeth Line at Moorgate and Tottenham Court Road are currently obscured.



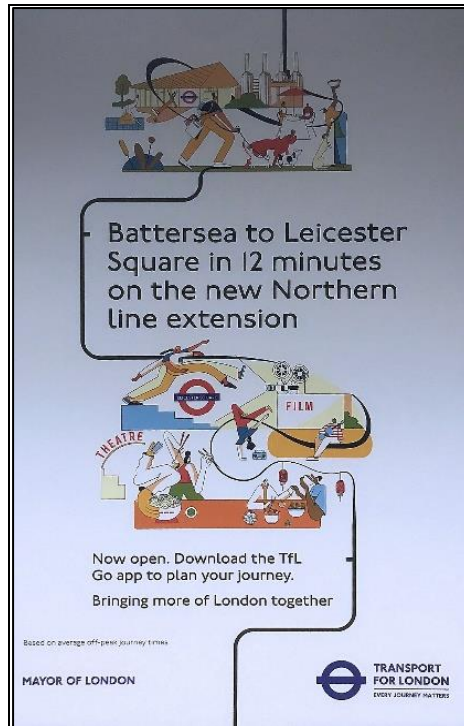
Left: Modern 'silhouette' platform roundels are installed at both NLE stations.

ELECTRONIC DISPLAYS AND AUDIO ANNOUNCEMENTS

In the days of rolling stock destination plates or blinds, and lightbox 'FIRST/SECOND/THIRD' train platform indicators, any new destination had to be physically added to each train or illuminated sign, but it is now comparatively easy on 1995 Tube Stock to simply edit the program if a new display is required. The 1995 Tube Stock have had 'Battersea Power Stn' and 'Nine Elms' added to the range of destinations that can be shown (though no trains terminate at Nine Elms in normal service). Changes have also been made to the associated Digital Voice Announcements (DVA) on trains and stations. The existing 1995 Tube Stock DVA are spoken by Celia Drummond, but she died in January 2021 before being able to record the new stations and interchanges for the NLE, and so new female voice-artist has been engaged to add the extra messages needed. Platform indicators show the full 'Battersea Power Station' at many stations, but north of Camden Town the name is shortened to 'Battersea' to allow space for the train's routing – i.e. 'Battersea via Charing Cross'. On the opening day some station indicators had trains to Battersea described as 'Check destination on front of train'.

POSTERS

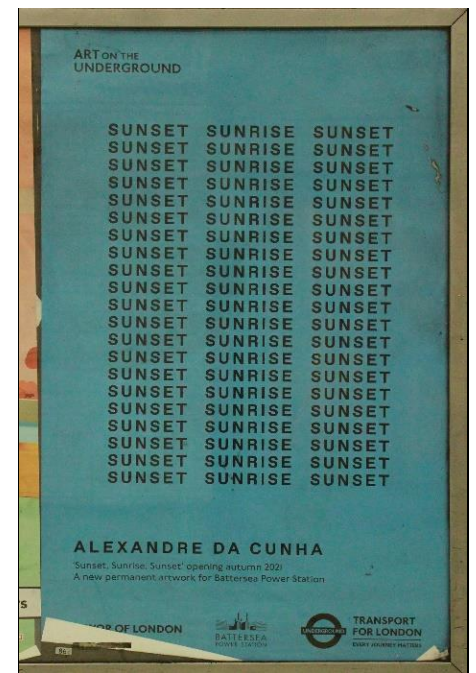
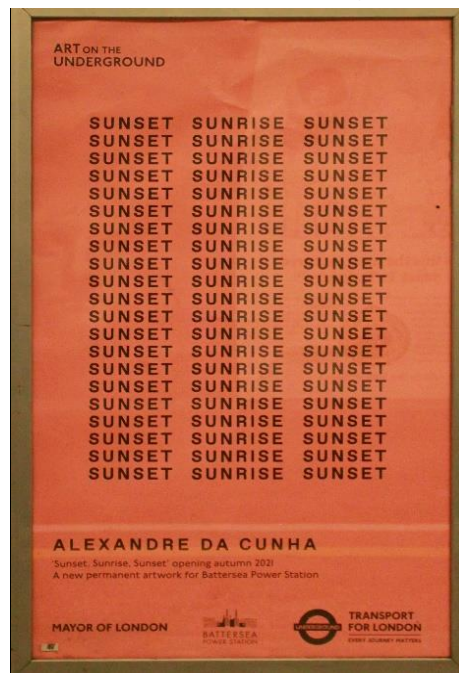
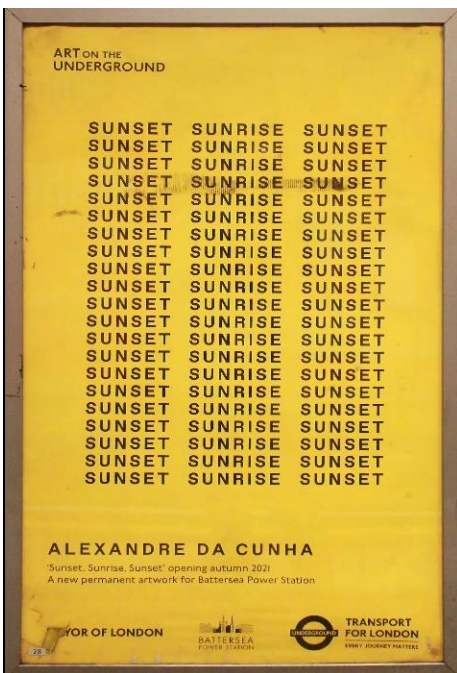
TfL posters publicising the extension appeared in both portrait and landscape form. Sadly, none of these exhibited the style or flair of those issued by London Transport in the past for developments like the New Works Programme, Victoria Line, or even Jubilee Line Stage 1.



Above: TfL posters promoting the extension.

Photos: Roger Tuke (Left and Centre)

Three posters were produced as part of the *Art on the Underground* programme to promote Alexandre da Cunha's *Sunset, Sunrise, Sunset* installation at Battersea Power Station. These posters were identical in layout and wording but had different-coloured backgrounds to represent the three faces of the ever-changing work. An unofficial commemorative poster in the style of a 1930s Underground Group design was also created by NLE Project Planner Neal Dodge.



Above: Three versions of a poster promoting the art installation at Battersea Power Station.

OPENING DAY

Public services on the NLE commenced from start of traffic on Monday 20 September. Despite the lack of any planned formal ceremony, around 150 people gathered outside Battersea station ready to ride on the inaugural departure. The first train to carry passengers was Train 201, the 05.28 Battersea Power Station to Kennington shuttle, and consisted of units 51598+51599. Train 201 was also the first through train off the branch, subsequently forming the 05.54 Battersea Power Station to Edgware via Charing Cross. Official launch events for dignitaries and the media were held at Battersea and Nine Elms stations between 07.30 and 09.00. The Battersea Power Station Community Choir, safely masked, performed a version of The Jam's *Going Underground* (a better choice of song than the lyrics to *Down*

in *The Tube Station at Midnight*, for those familiar with their canon). A plan to fly a balloon in the shape of the LU roundel above the power station building, with a nod to the classic Pink Floyd *Animals* album cover, foundered due to high winds. It seems there were no badges, keyrings, mugs, pens or other similar 'freebie' items produced by TfL to commemorate the occasion, whether for internal or external distribution.



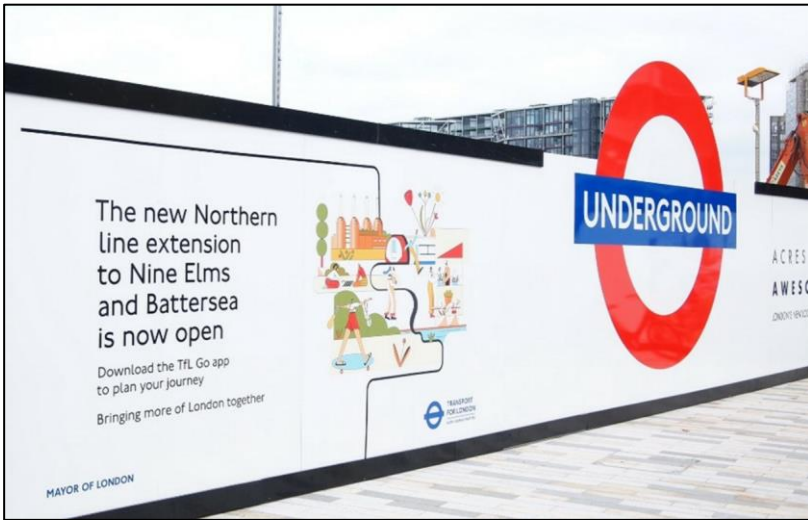
Above: Outside Battersea Power Station (station), waiting for it to open on Monday, 20 September.

Left: The first operational train in service waiting to depart from Battersea for Kennington at 05.28.

Both photos: John Wilson

The official opening was presided over by Mayor of London Sadiq Khan and Secretary of State for Transport Grant Shapps, both of whom seemed keen to claim credit for the extension. Other guests included representatives of

Lambeth and Wandsworth councils and from the power station development company. Also in attendance were current and former Transport Commissioners Andy Byford and Mike Brown. The post-official opening photocall and media interviews took place outside, no doubt to avoid the Mayor's TfL 'mask mandate'. Services were comfortably loaded on the first day, and in the days afterwards, as many enthusiasts, locals, Londoners in general, and those from farther afield, took the opportunity to experience the new line.



Above: Promotional advertising on a hoarding at Battersea.

Photo: Roger Tuke

Right: The attempt to fly a roundel balloon between the power station's four iconic chimneys which was scuppered by strong wind.

Photo: David Rowe

Note: All photos are by the author unless indicated. Any photos of non-public areas were taken during authorised track access by appropriately licensed staff.

