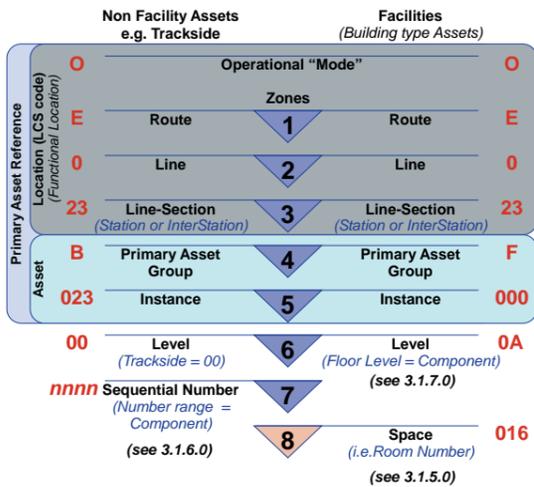**LOCORE-LO-K-OZ000-Z000ZE_XX-STD-0030**

Print me
A3

Version: P02.2_S0
Date: 2015.11.20
Author: AJ Hake
Technical Check: .
Authorised: .

**DRAFT**

For associated documents see:
LOCORE-LO-K-OZ000-Z000ZE_XX-STD-0030

## 3.1.1.0 - ZONES

To enable the location and assignment of information against an assets, eight zones have been defined:

| | Non Facility Assets e.g. Trackside | Zones | Facilities (Building type Assets) | |
|---|---|---|---|---|
| O | Operational "Mode" | | Operational "Mode" | O |
| E | Route | 1 | Route | E |
| 0 | Line | 2 | Line | 0 |
| 23 | Line-Section *(Station or InterStation)* | 3 | Line-Section *(Station or InterStation)* | 23 |
| B | Primary Asset Group | 4 | Primary Asset Group | F |
| 023 | Instance | 5 | Instance | 000 |
| 00 | Level *(Trackside = 00)* | 6 | Level *(Floor Level = Component)* (see 3.1.7.0) | 0A |
| *nnnn* | Sequential Number *(Number range = Component)* (see 3.1.6.0) | 7 | | |
| | | 8 | Space *(i.e. Room Number)* (see 3.1.5.0) | 016 |

Primary Asset Reference / Location (LCS code) *(Functional Location)* / Asset

## 3.1.2.0 - ZONES 1, 2, 3: LOCATION CODING SYSTEM (LCS)

The "**L**ocation **C**oding **S**ystem" (**LCS**) / "Functional Location" is used to identify and subdivide a railway into "Line-Sections" *(locational zones)*; these shall be used for referencing engineering asset location and record keeping purposes.

A "Line-Sections" zone shall identify either a "**Stations**" or "**InterStation**" *(the zone between stations)* along a railway line.

O**LCS** codes shall be five (**5**) character in length.

oPROID-ORG-R-O**LCS**c-PIOZAM_00-TYP-0001

oPROID-ORG-R-O**LCS**c-PIOZAM_00-TYP-0001

**O**E**030**

*Legacy:*
Four (4) character LCS code  **E403**

"Operational Mode" **OW006**
(**O** = London Overground)

Zone 3: Line-Section
Zone 2: Line
Zone 1: ROUTE

*Note:* **Line-Sections**
**Station** *(Odd numbered LCS Codes)*
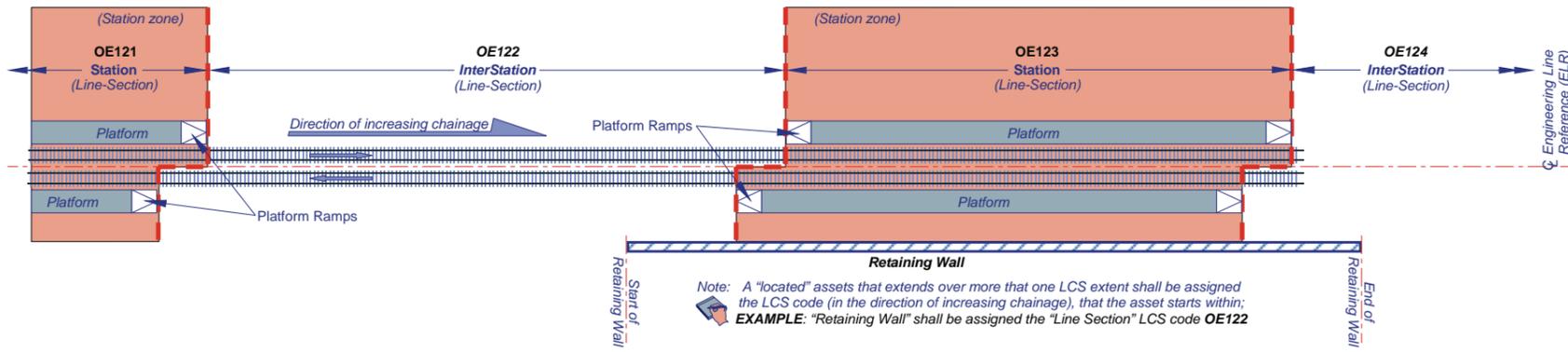**InterStation** *(Even numbered LCS Codes)*

## 3.1.3.0 - ROUTE DIRECTION

Railway line directions are usually described as up and down, with up being towards a major location. This convention is applied not only to the trains and the tracks, but also to items of lineside equipment and to areas adjacent to the track.

- The up side of a line is on the left when proceeding in the up direction.
- On most of the railway network, up is the direction towards London.

On the London Underground geographic direction naming generally prevails *(e.g. Eastbound, Westbound)*, except for the Circle line or the loop of the Central line where the directions are often referred to as inner rail *(anti-clockwise)* or outer rail *(clockwise)*.

- Trains running towards London are normally referred to as Up trains *(Up Line)*.
- Trains running away from London as Down trains *(Down Line)*.

Other directions commonly used are London and Country.
- The London end of a station is the end where trains to London depart.
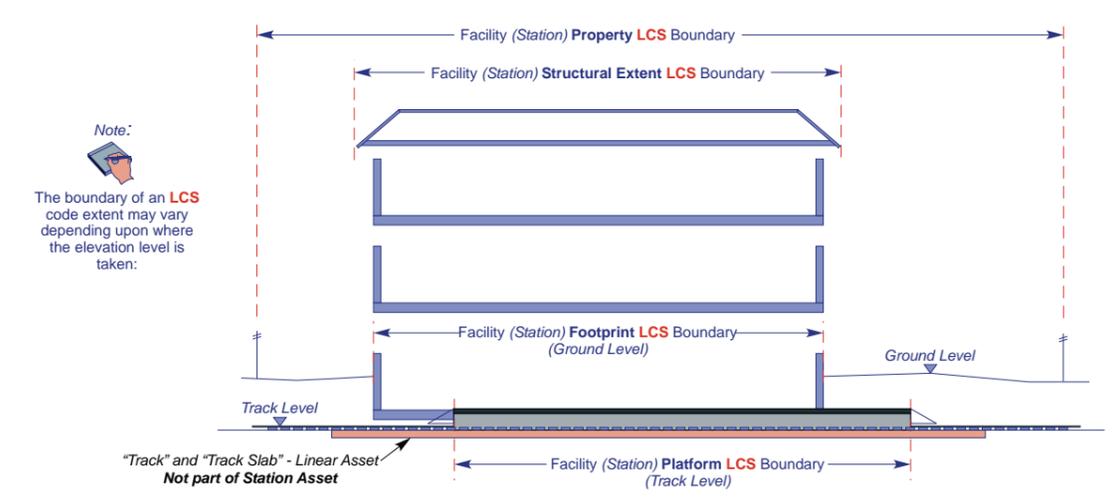- The country end is the opposite end, where trains to the country depart.

**London end**

Up Line

Down Line

**Country end**

*Please Note: That sheep may not always be found at the country end; there is no intention to offend anyone living in areas where there may be... no sheep! such as, for example... East Croydon.*

**Country end**

## ROUTE  O = London Overeground "Operational Mode"

| E | D | G | N | W | Z |
|---|---|---|---|---|---|
| *(East London)* | *(DC Lines Euston - Watford)* | *(Gospel Oak - Barking)* | *(North London)* | *(West Anglia)* | *CORE (All Routes)* |
| Line 0 *(e.g., Main Line)* | Line 4 *(Silwood to Clapham Junction)* | Line 5 *(New Cross Branch)* | Line 6 *(Crystal Palace Branch)* | Line 6 *(New Cross Gate Depot)* | Line 7 *(Silwood Sidings)* |

Zone 1 / Zone 2 / Zone 3

**OE030**
**LOCATION** *(LCS Code)*

30 **InterStation**
31 **Station** *Operational Point*
32 **InterStation**

*Note:* **Line-Sections**
**Station** *(Odd numbered LCS Codes)*
**InterStation** *(Even numbered LCS Codes)*

STATION — InterStation *(Line-Section)* — STATION — InterStation *(Line-Section)* — STATION — InterStation *(Line-Section)* — STATION

Section of Line (SoLs) — Section of Line (SoLs) — Section of Line (SoLs)

(OP) Operational Point — (OP) Operational Point — (OP) Operational Point — (OP) Operational Point

Line

## 3.1.4.0 - STATION ZONE

**OE121** Station *(Line-Section)*
**OE122** InterStation *(Line-Section)*
**OE123** Station *(Line-Section)*
**OE124** InterStation *(Line-Section)*

*(Station zone)*

Platform / Platform Ramps

Direction of increasing chainage

Retaining Wall

Start of Retaining Wall / End of Retaining Wall

Engineering Line Reference (ELR)

*Note:* A "located" assets that extends over more than one LCS extent shall be assigned the LCS code *(in the direction of increasing chainage)*, that the asset starts within;
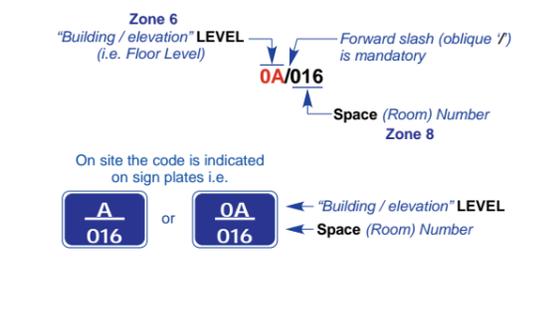**EXAMPLE:** "Retaining Wall" shall be assigned the "Line Section" LCS code **OE122**

The area from the ends of platform/ramps of the same station including space enclosed by the operational boundary and including any structure that forms part of, or is integral to the station facility and is directly accessed from the station envelope.

Where station platforms are staggered, the station extent will be taken at right angles from the end of platform/ramp to the **E**ngineering **L**ine **R**eference (**ELR**); centreline between tracks.

*Note:* The boundary of an **LCS** code extent may vary depending upon where the elevation level is taken:

Facility *(Station)* **Property LCS** Boundary
Facility *(Station)* **Structural Extent LCS** Boundary
Facility *(Station)* **Footprint LCS** Boundary *(Ground Level)*
Ground Level
Track Level
"Track" and "Track Slab" - Linear Asset **Not part of Station Asset**
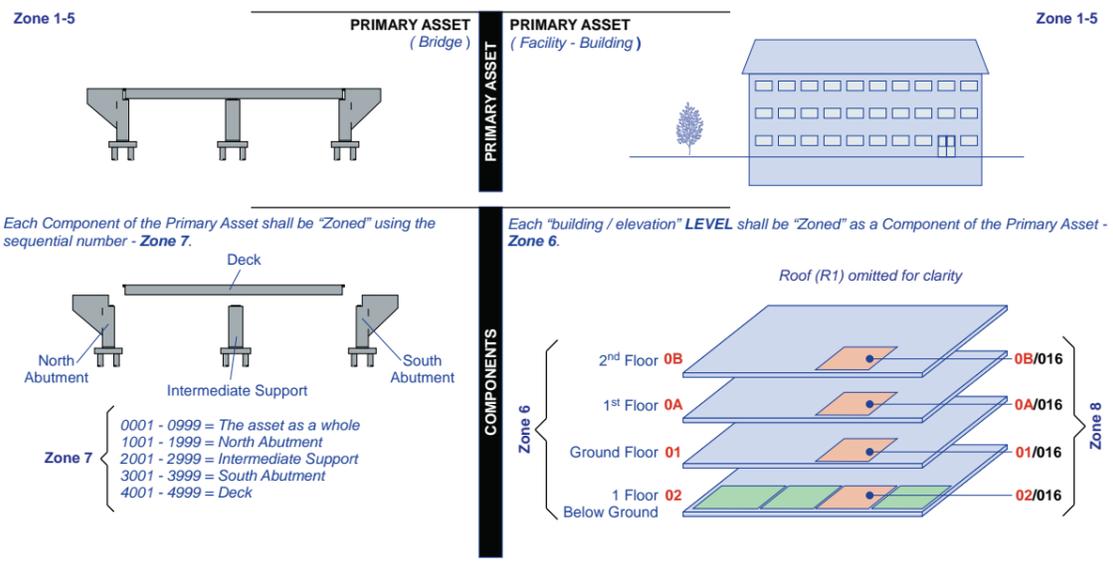Facility *(Station)* **Platform LCS** Boundary *(Track Level)*

## 3.1.5.0 - ZONE 8: SPACES

Each space *(Zone 8)* within a Facility *(Stations and Buildings etc.,)* shall be allocated a "**S**pace **Id**entifier" (**SID**) code depending on the usage of the space.

Zone 6
"Building / elevation" **LEVEL** *(i.e. Floor Level)*  Forward slash *(oblique '/')* is mandatory

**0A/016**
Space *(Room)* Number **Zone 8**

On site the code is indicated on sign plates i.e.

**A 016** or **0A 016**  ← "Building / elevation" **LEVEL**
Space *(Room)* Number

## 3.1.6.0 - EXAMPLES

**Zone 1-5**

**PRIMARY ASSET** *( Bridge )*
**PRIMARY ASSET** *( Facility - Building )*

**Zone 1-5**

Each Component of the Primary Asset shall be "Zoned" using the sequential number - **Zone 7**.

Deck
North Abutment / Intermediate Support / South Abutment

Zone 7
0001 - 0999 = The asset as a whole
1001 - 1999 = North Abutment
2001 - 2999 = Intermediate Support
3001 - 3999 = South Abutment
4001 - 4999 = Deck

Each "building / elevation" **LEVEL** shall be "Zoned" as a Component of the Primary Asset - **Zone 6**.

*Roof (R1) omitted for clarity*

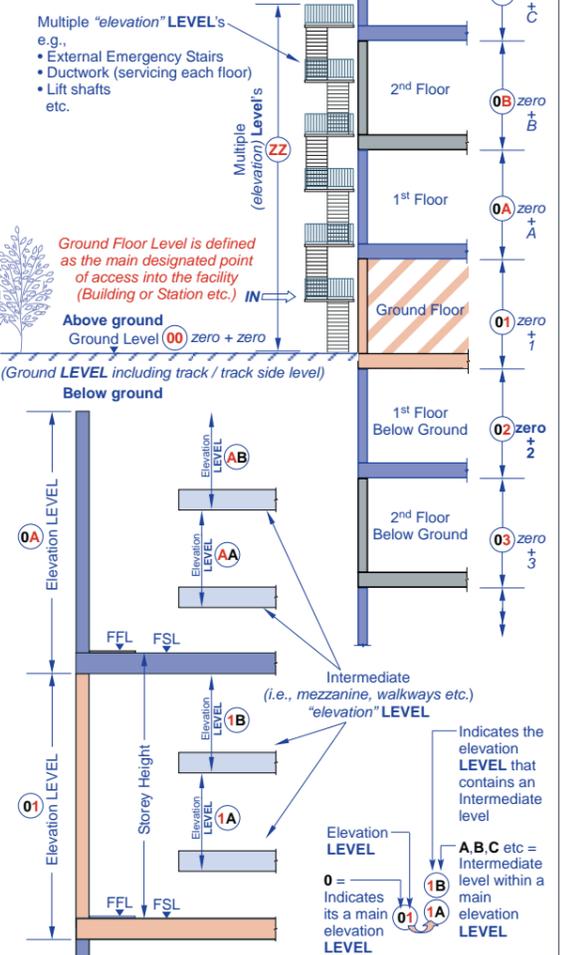| Level | Code |
|---|---|
| 2nd Floor **0B** | **0B/016** |
| 1st Floor **0A** | **0A/016** |
| Ground Floor **01** | **01/016** |
| 1 Floor Below Ground **02** | **02/016** |

COMPONENTS / Zone 6 / Zone 8

## 3.1.7.0 - ZONE 6: LEVEL

The "building / elevation" LEVEL *(i.e. Floor Level)* field code defines the vertical boundary where items are located and can be associated to.
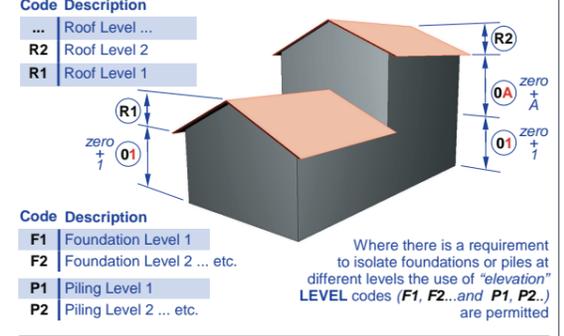
*Note:* The "building / elevation" LEVEL codes defined here within the **CPMDS** are in reverse of that defined within BS1192, BS EN ISO 4157-1 and EN ISO 4157-1). This is to align with existing TfL (LU) codes in use.

*Note:* The "building / elevation" LEVEL codes used by London Overground make the assumption that a Facility *(Building, Station etc.,)* will:
- Not exceed 8 floor levels below ground
- Not exceed 27 floor levels above ground

*Note:* Where LEVEL is not applicable the LEVEL code **[ XX ]** shall be used.

Roof **R1**
3rd Floor **0C** zero + C
2nd Floor **0B** zero + B
1st Floor **0A** zero + A

Multiple "elevation" LEVEL's e.g.
- External Emergency Stairs
- Ductwork *(servicing each floor)*
- Lift shafts etc.

Multiple (elevation) Level's **ZZ**

*Ground Floor Level is defined as the main designated point of access into the facility (Building or Station etc.)*  **IN**

**Above ground**  Ground Level **00** zero + zero

*(Ground LEVEL including track / track side level)*

**Below ground**

Ground Floor **01** zero + 1
1st Floor Below Ground **02** zero + 2
2nd Floor Below Ground **03** zero + 3

Elevation LEVEL: **AB**, **AA**, **B** (1B), **A** (1A)
**01**

Intermediate *(i.e., mezzanine, walkways etc.)* "elevation" LEVEL

Indicates the elevation LEVEL that contains an Intermediate level

Elevation LEVEL

**A,B,C** etc = Intermediate level within a main elevation LEVEL

**0** = Indicates its a main elevation LEVEL

FFL / FSL
Storey Height

Facilities *(buildings, Stations etc.,)* may reside over many LEVELS; where this occurs the Facility may have more than one roof LEVEL. The use of the "elevation" LEVEL codes (*R1*, *R2* etc.,) shall be used to identify each roof level.

| Code | Description |
|---|---|
| ... | Roof Level ... |
| R2 | Roof Level 2 |
| R1 | Roof Level 1 |

**R2**, **R1**, **0A** zero + A, **01** zero + 1

Where there is a requirement to isolate foundations or piles at different levels the use of "elevation" LEVEL codes (*F1*, *F2*...and *P1*, *P2*..) are permitted

| Code | Description |
|---|---|
| F1 | Foundation Level 1 |
| F2 | Foundation Level 2 ... etc. |
| P1 | Piling Level 1 |
| P2 | Piling Level 2 ... etc. |

## 3.1.7.1 - TRACKSIDE NON "BUILDING" TYPE ASSETS

Trackside: - LINEAR and Non "building" type assets may use the following "elevation" LEVEL codes:

| Code | Description | |
|---|---|---|
| AG | Above Ground: | *Not directly connected to the ground* |
| 00 | Ground Level: | *Including the ground (DMT) and assets sitting on or partially below ground level (visible)* |
| BG | Below Ground: | *Flush with the ground surface or below (not visible from ground level)* |

## 3.2.1.0 - LONDON OVERGOUND ROUTE DIAGRAM

### 3.2.2.0 - ROUTE-WIDE AND LINE-WIDE (LCS) CODES

#### 3.2.2.1 - ROUTE-WIDE LCS CODES

A "**Route-wide**" LCS codes shall be used where documentation and data are related to all lines associated to a route.

#### 3.2.2.2 - LINE-WIDE LCS CODES

A "**Line-wide**" LCS codes shall be used where documentation and data related to an individual lines.

#### 3.2.3.4 - DC LINES - ROUTE

**OD000** Route (**OD** - DC Lines) - **Route-wide** LCS code

**OD100** Line (**OD1** - Euston to Watford Junction) - **Line-Wide** LCS code

#### 3.2.3.5 - EAST LONDON LINE (ELL) - ROUTE

**OEL00** Route (**OE** - East London Line) - **Route-wide** LCS code

**Note:** *Legacy LCS codes for ELL are four (4) character in length, omitting the "Operational Mode" code* **O** *. (see section 3.1.2.0)*

| | | |
|---|---|---|
| **E000** | Line (**E0** - Dalston to New Cross Gate) - **Line-Wide** LCS code |
| **E300** | Line (**E3** - Silwood to Clapham Junction) - **Line-Wide** LCS code |
| **E400** | Line (**E4** - New Cross Branch Line) - **Line-Wide** LCS code |
| **E500** | Line (**E5** - Crystal Palace Branch Line) - **Line-Wide** LCS code |
| **E600** | Line (**E6** - New Cross Gate Depot) - LCS code |
| **E700** | Line (**E7** - Silwood Sidings) - LCS code |

#### 3.2.3.7 - GOSPEL OAK - ROUTE

**OG000** Route (**OG** - North London Lines) - **Route-wide** LCS code

**OG100** Line (**OG1** - Gospel Oak to Barking) - **Line-Wide** LCS code

#### 3.2.3.14 - NORTH LONDON LINE (NLL) - ROUTE

**ON000** Route (**ON** - North London Lines) - **Route-wide** LCS code

**ON100** Line (**ON1** - Stratford to Richmond) - **Line-Wide** LCS code

**ON200** Line (**ON2** - Old Oak Common to Clapham Junction) - **Line-Wide** LCS code

#### 3.2.3.23 - WEST ANGLIA - ROUTE

**OW000** Route (**OW** - West Anglia Line) - **Route-wide** LCS code

**OW100** Line (**OW1** - West Anglia Line - Liverpool St. to Enfield Town) - **Line-Wide** LCS code

**OW200** Line (**OW2** - West Anglia Line - Hackney Downs to Chingford) - **Line-Wide** LCS code

**OW300** Line (**OW3** - West Anglia Line - Edmonton Green to Cheshunt) - **Line-Wide** LCS code

**OW400** Line (**OW4** - West Anglia Line - Romford to Upminster) - **Line-Wide** LCS code

#### 3.2.3.26 - OVERGROUND ALL ROUTES

**OZ000** When making reference or referring to all Routes/Lines associated to "London Overground," the route-wide LCS code **OZ000** shall be used.

### 3.2.1.1 - KEY TO SYMBOLS

- London Overground Routes
- London Overground Operating on London Overground Route
- London Overground Operating on Network Rail Lines
- Crossrail
- London Overground Fault Reporting Boundary
- ○ London Overground Stations
- ⊙ London Overground Interchange stations
- ■ Network Rail Stations
- ⬤ Network Rail Station on 125 Year Lease to Rail for London (RfL)
- ◍ Crossrail Stations
- ◍ Crossrail Stations on 125 Year Lease to Rail for London (RfL)
- ♿ Step-free access from street to train
- ♿ Step-free access from street to platform
- ➤ National Rail
- ⛴ River Boat Services
- ✈ Airport



London Overground Route Diagram (Location Coding System). Station labels include: Watford Junction - OD139, Watford High Street - OD137, Bushey - OD135, Carpenders Park - OD133, Hatch End - OD131, Headstone Lane - OD129, Harrow & Wealdstone - OD127, Kenton - OD125, South Kenton - OD123, North Wembley - OD121, Wembley Central - OD119, Stonebridge Park - OD117, Harlesden - OD115, Willesden Junction (Low Level) OD113, Kensal Green - OD111, Queen's Park OD109, Kilburn High Road OD107, South Hampstead OD105, Euston OD103; Enfield Town - OW129, Cheshunt - OW309, Theobalds Grove - OW307, Turkey Street - OW305, Southbury - OW303, Bush Hill Park - OW127, Edmonton Green - OW125, Silver Street - OW123, White Hart Lane - OW121, Bruce Grove - OW119, Seven Sisters - OW117, Chingford - OW213, Highams Park - OW211, Wood Street - OW209, Walthamstow Central - OW207, Walthamstow Queen's Road - OG115, St. James Street - OW205, Clapton - OW203, Stamford Hill - OW115, Stoke Newington - OW113, Rectory Road - OW111, South Tottenham OG111, Harringay Green Lanes OG109, Crouch Hill - OG107, Upper Holloway - OG105, Gospel Oak OG103, Hampstead Heath ON127, Finchley Road & Frognal ON129, West Hampstead ON131, Brondesbury - ON133, Brondesbury Park - ON135, Kensal Rise - ON137, Acton Central - ON143, South Acton - ON145, Gunnersbury - ON147, Kew Gardens - ON149, Richmond - ON151, Old Oak Common ON141, Shepherd's Bush ON203, Kensington (Olympia) ON205, West Brompton - ON207, Imperial Wharf - ON209, Dalston Kingsland ON113, Hackney Downs - OW109, Hackney Central ON111, Homerton - ON109, Hackney Wick - ON107, Leytonstone High Road - OG119, Leyton Midland Road - OG117, Wanstead Park - OG121, Woodgrange Park - OG123, Barking - OG125, Barking Riverside - OG127, Upminster - CR127, Romford - CR119, Emerson Park - OW403, Chadwell Heath - CR117, Goodmayes - CR115, Seven Kings - CR113, Ilford - CR109, Manor Park - CR107, Forest Gate - CR105, Maryland - CR103, Stratford C091, Canary Wharf - CR143, Custom House for ExCeL - CR145, Woolwich - CR147, Abbey Wood - CR149, Dalston Junction - E011, Haggerston - E013, Hoxton - E015, Shoreditch High Street - E017, Whitechapel E019, Shadwell - E021, Wapping - E023, Rotherhithe - E025, Canada Water E027, Surrey Quays - E029, New Cross - E403, New Cross Gate - E031, Brockley - E033, Honor Oak Park - E035, Forest Hill - E037, Sydenham - E039, Penge West - E041, Anerley - E043, Norwood Junction - E045, West Croydon - E047, Crystal Palace - E503, Peckham Rye - E307, Queens Road Peckham - E305, Denmark Hill - E309, Clapham High Street E311, Wandsworth Road E313, Clapham Junction E315, New Cross Gate Depot E600, Silwood Triangle / Sidings E700.