

# Northern Line Extension

## Core Community Liaison

## Group meeting

## 26 / 10 / 2016

Delivering the Northern line extension with

**ferrovial**  
agroman

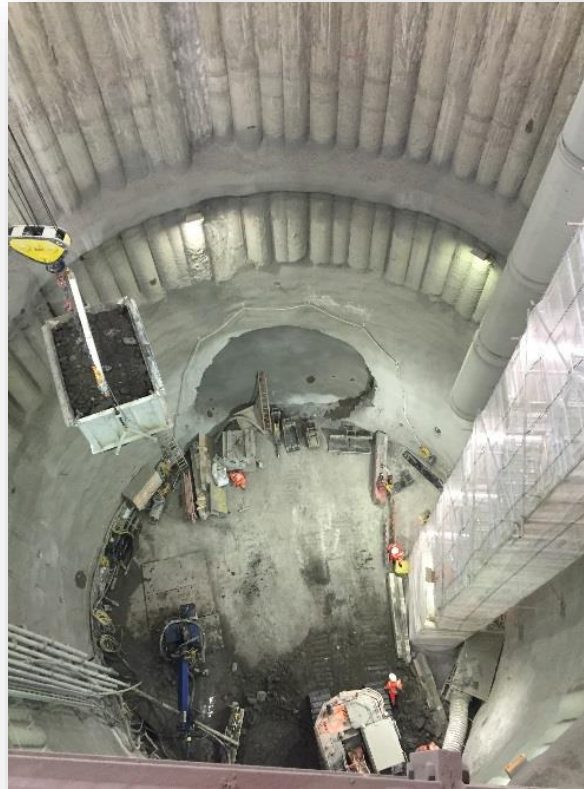


MAYOR OF LONDON



# Kennington Green Jul – Oct 2016

- 26m deep shafts sunk Kennington Green completed July 2016
- 15m of Sprayed Concrete Lining tunnels Back Shunt at Kennington Green completed August 2016
- 142m of Sprayed Concrete Lining tunnels Front Shunt at Kennington Green due for completion early November 2016



Preparation of Kennington Green running tunnel soft eye and excavation of Back Shunt



Completed Back Shunt  
Kennington Park

# Kennington Green Jul – Oct 2016



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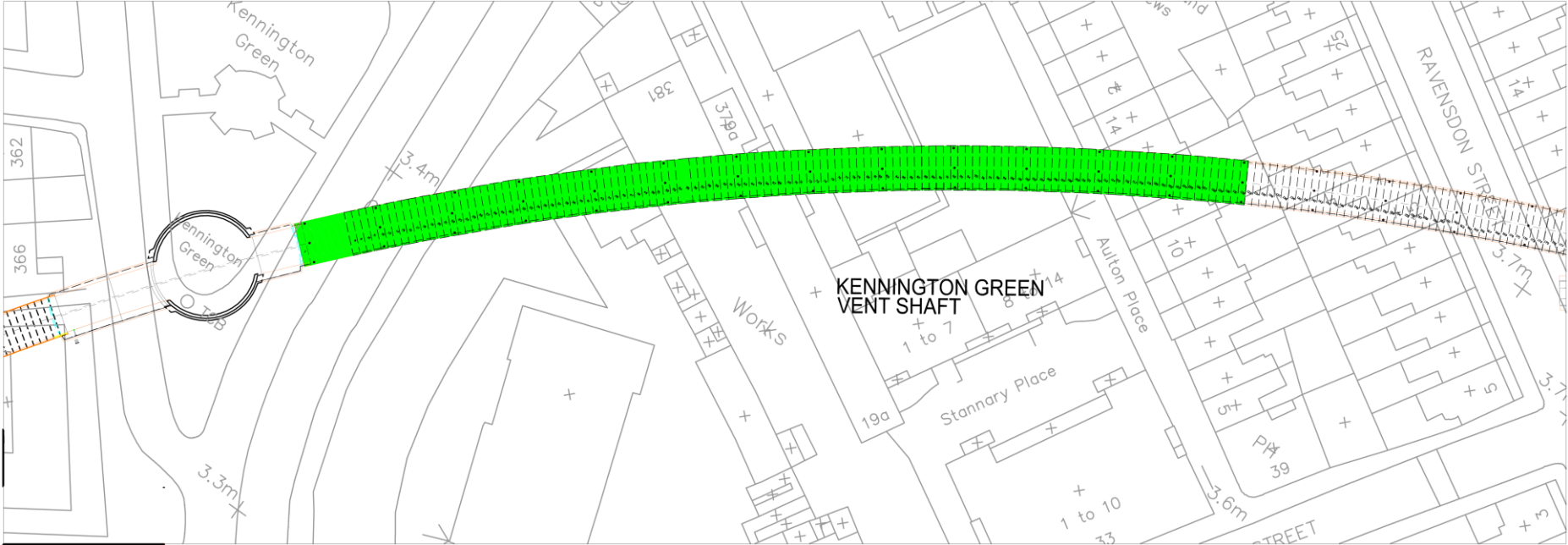




# KG tunnel advance Jul – Oct 2016



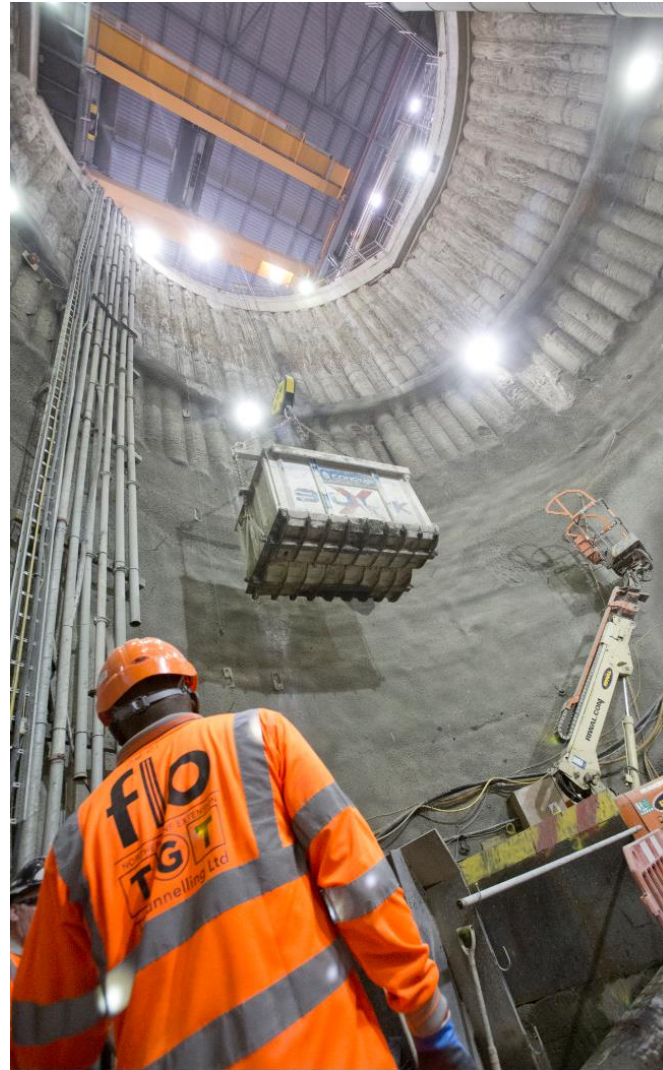
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# KG Programme and advance rate



- Finish Spray Concrete Lining (SCL) works December 2016
- Start of the Step Plate Junction (SPJ) works January 2017
- Finish SPJ works July 2017



# Kennington Park: July - Oct 2016

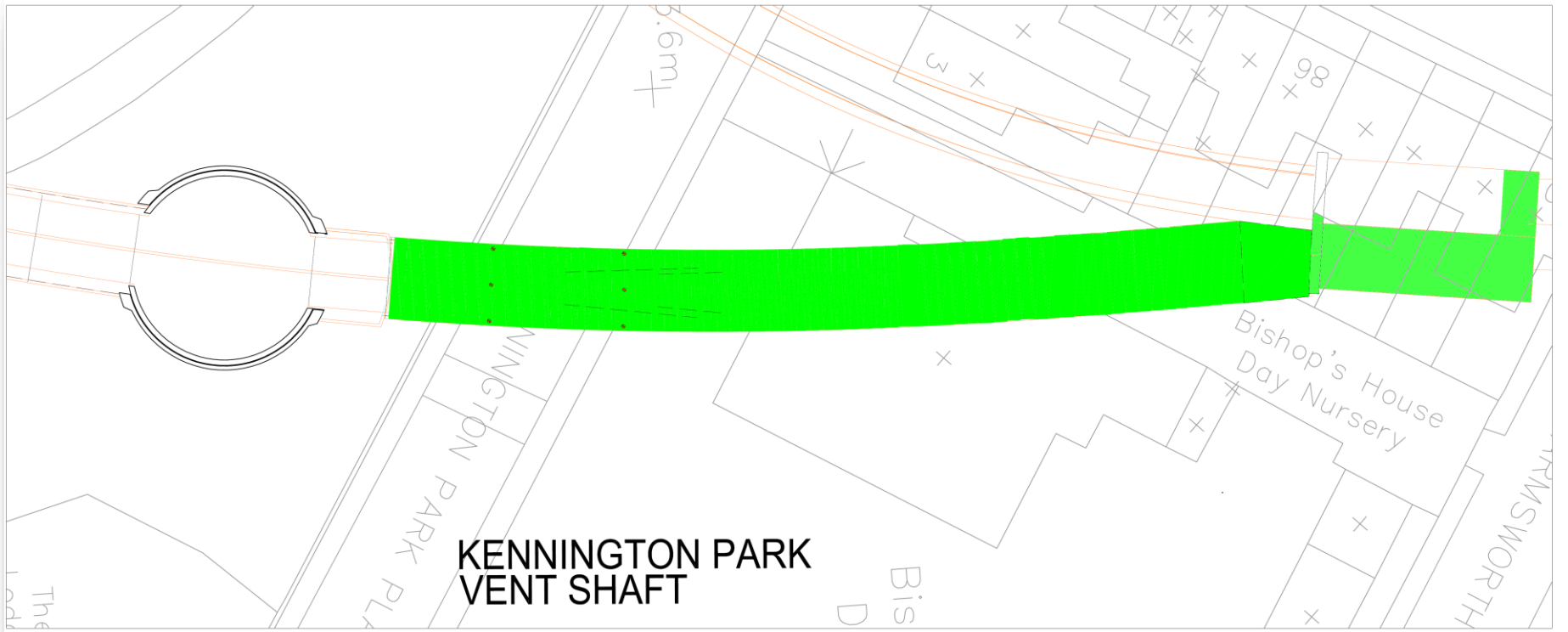


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- Finished Temporary Acoustic Shed
- Excavated Full Depth of Shaft
- Excavated Tunnel to Kennington Loop
- Commenced Pilot Tunnel Alongside Kennington Loop



# Kennington Park: July - Oct 2016 Tunnelling Progress





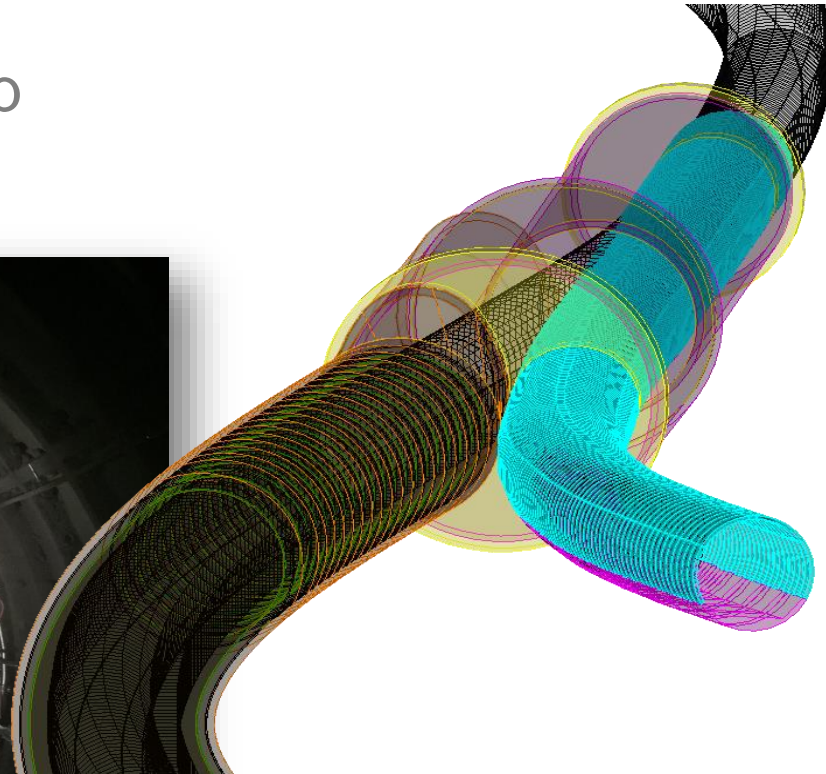
# Kennington Park - SCL Tunnel Excavation





# Kennington Sites Oct '16 – Jan '17

- Completion of Pilot Tunnel
- Commencement of Step Plate Junction Works



# NLE Nine Elms Site Map Overview



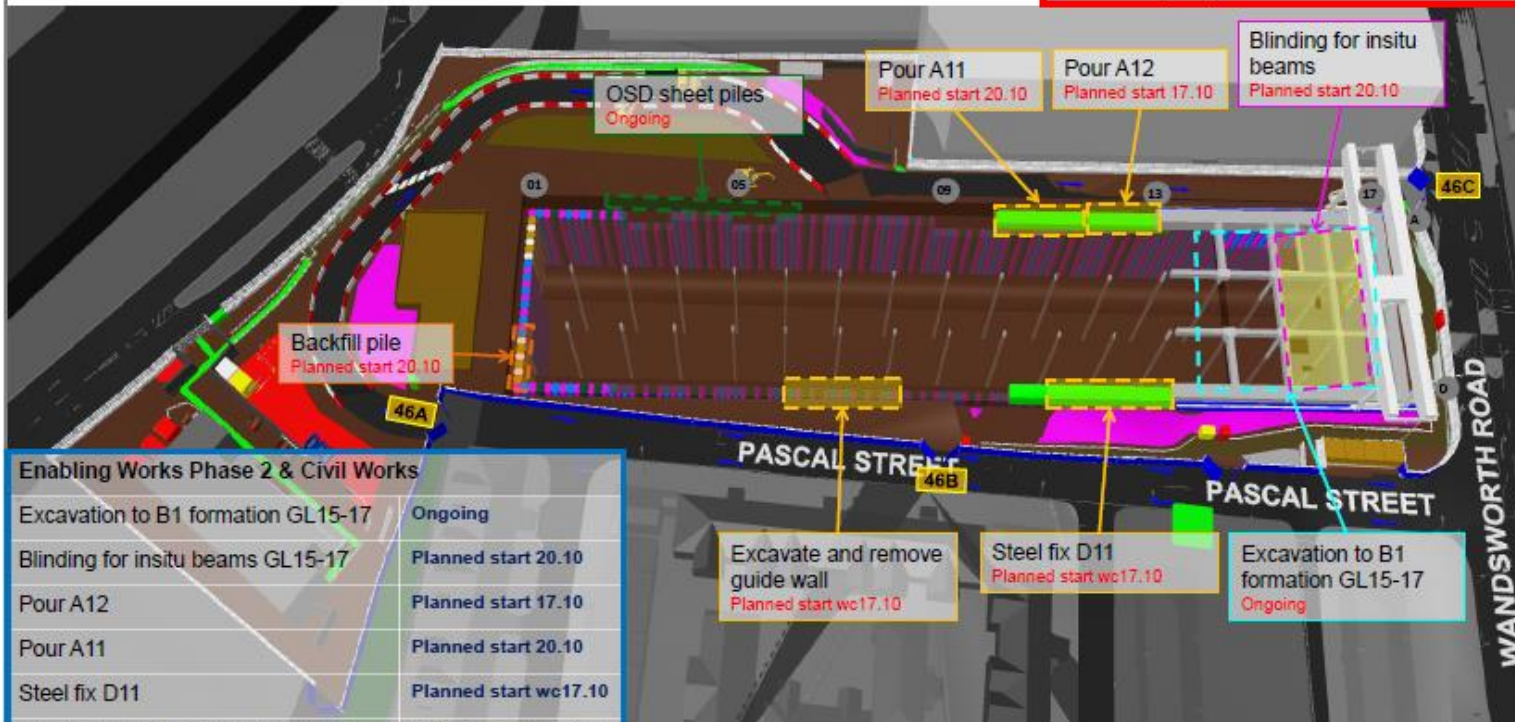
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LAING O'ROURKE JV



## Nine Elms – Weekly Look Ahead plan w/c 17/10/16

### PLANNED WORKS (p8w1)

- Complete headwall works
- Backfill headwall pile and demob rig
- Select – Lighting works on insitu slab



### Enabling Works Phase 2 & Civil Works

Excavation to B1 formation GL15-17	Ongoing
Blinding for insitu beams GL15-17	Planned start 20.10
Pour A12	Planned start 17.10
Pour A11	Planned start 20.10
Steel fix D11	Planned start wc17.10
Excavate and pile cropping GL8-6	Planned start wc17.10
OSD sheet piles	Ongoing
Demob sheet piling team	Planned start 21.10



# Nine Elms July - Oct 2016

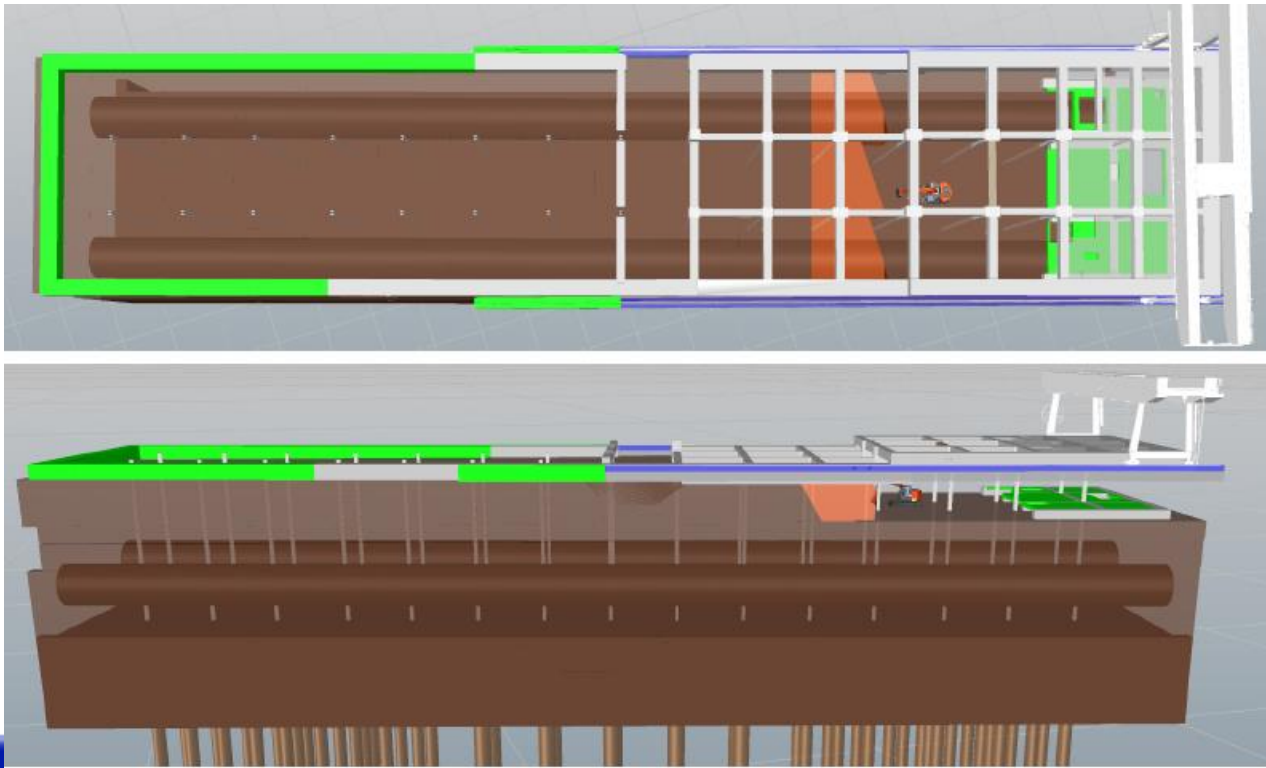
- Piling works completed
- Precast beams installed at ground level, including in-situ stitches (links between the beams and the columns)
- Concrete slab cast at ground level
- Excavation commenced to Basement 1 level
- Section of capping beam constructed (beam connecting tops of the piles)





# Nine Elms Update Oct – Jan 2017

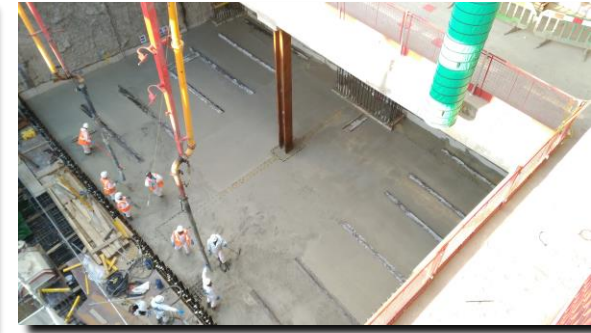
- Practical completion of the capping beam
- Continue with excavation works to Basement 1 level
- Install more precast beams and construct the in-situ stitch to the columns
- Commence construction of waling beam at Basement 1 level and in-situ beams
- Gantry crane foundation will be extended towards the West



# Battersea Update July – Oct 2016

## ✓ Crossover Box

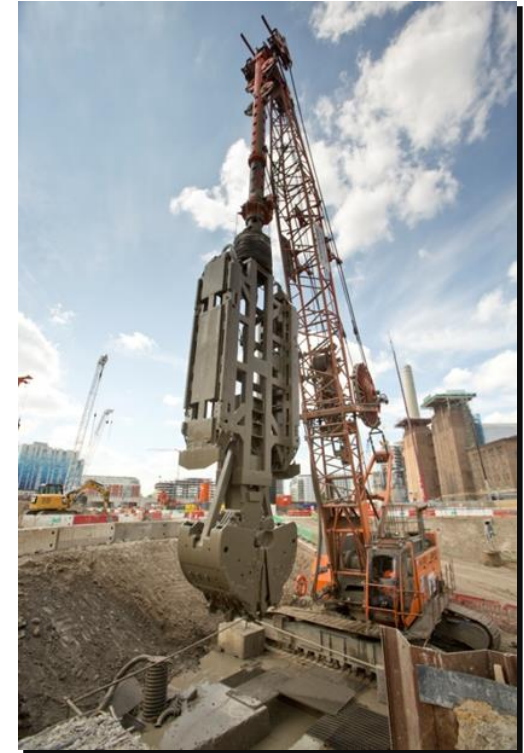
- 80% of the excavation complete
- Completion of all retaining concrete beams inside around the box
- Installation of all temporary steel struts
- 33% of the concrete base slab complete.



# Battersea Update July – Oct 2016

## ✓ Station Box

- 50% of the piling foundations for station columns complete
- 40% of the concrete wall perimeter complete
- Commencement of concrete beam on the west side tying the concrete walls



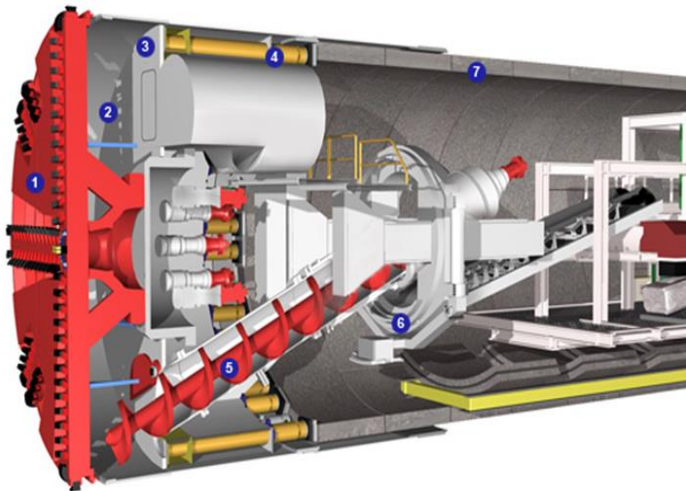


# Battersea Update July – Oct 2016

## ✓ Tunnel Boring Machines

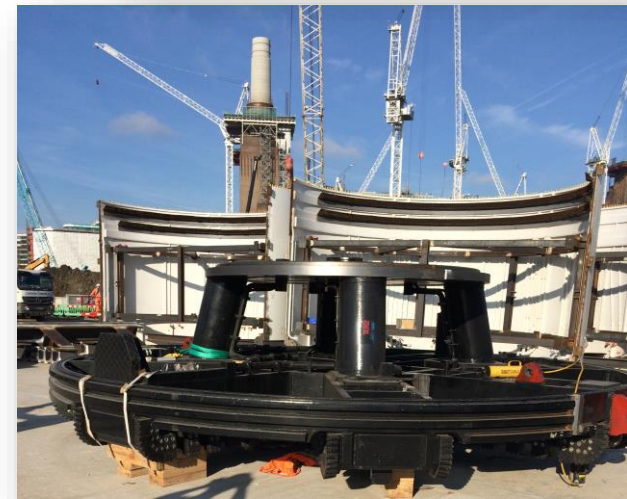
Arriving since September

- Cuttingwheel
- Shields
- Engine main drives
- Erectors



### TBM PARTS

- 1 – Cutting wheel
- 2 – Muck chamber
- 3 – Face Pressure
- 4 – Propulsion Force
- 5 – Screw
- 6 – Erector
- 7 – Ring build



# Battersea Update Oct – Jan 2017

## Tunnel Boring Machines Set-Up:



In total 76 deliveries:

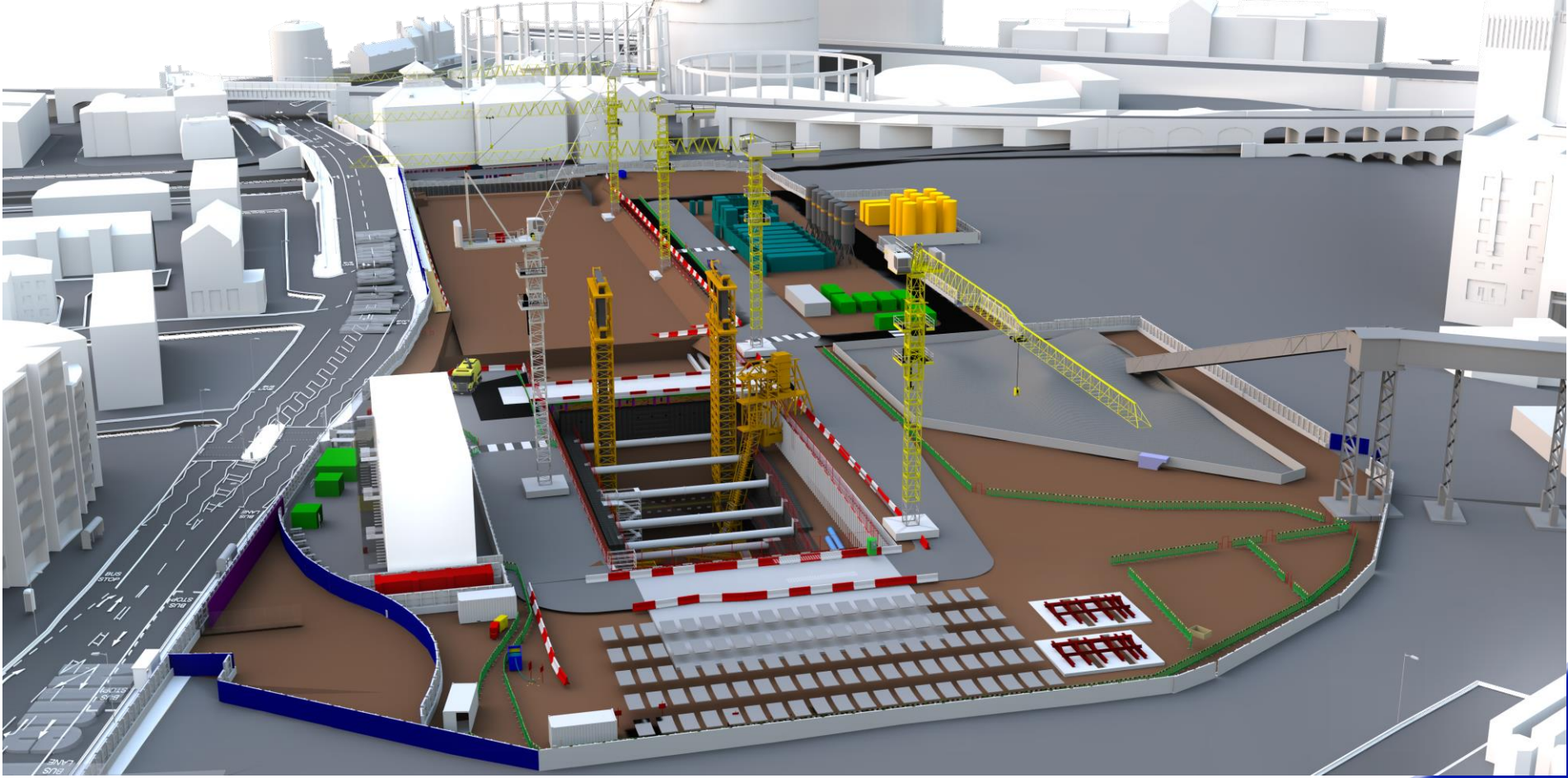
- Northbound shield by 20/10
- Southbound shield by 21/10
- Southbound Back-Up by 2/12
- Northbound Back-Up by 30/3



# Battersea Update Oct – Jan 2017



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# Environmental Update since July 2016

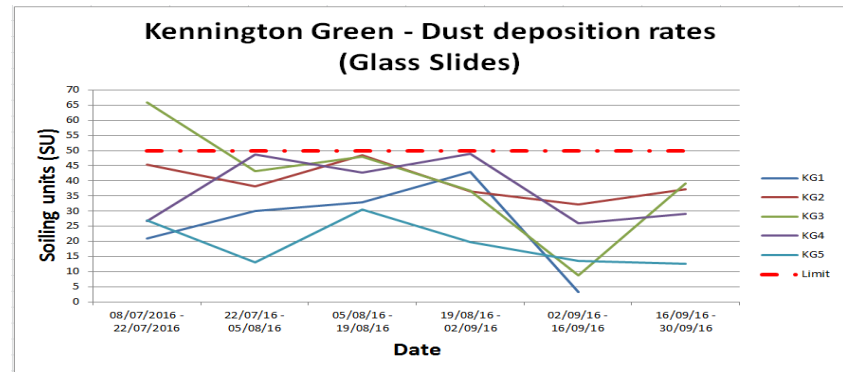
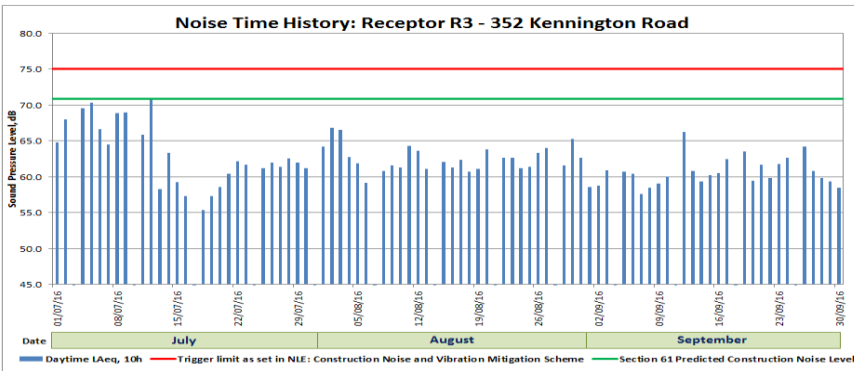
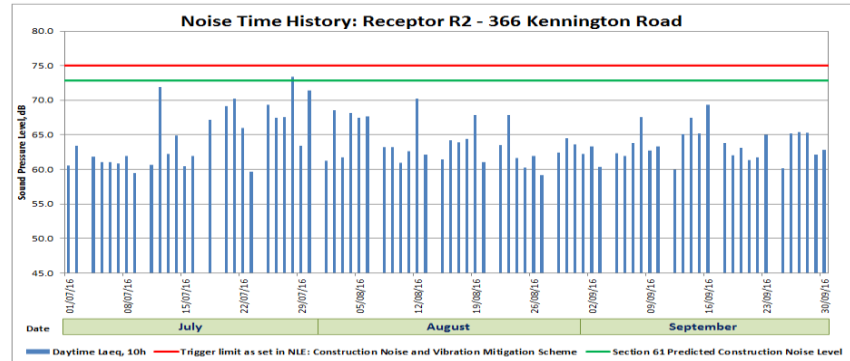
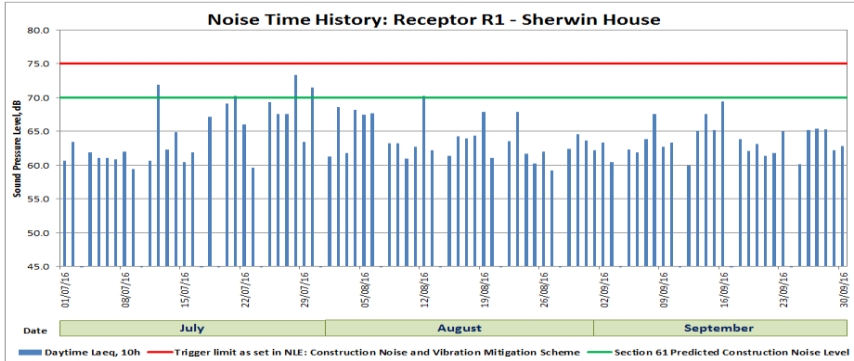
SITE	NOISE TRIGGER	DUST TRIGGER	REASON	GOOD NEWS
KG	0	1 in July	Breaking works	Mitigation of the dust, window cleaning in place
KP	0	0	Acoustic enclosure effective	
NE	0	3	Vehicle movements	No dust triggers in last month
BATT	0	4	Vehicle movements along Battersea Pk Rd	No onsite alerts from real time monitoring.



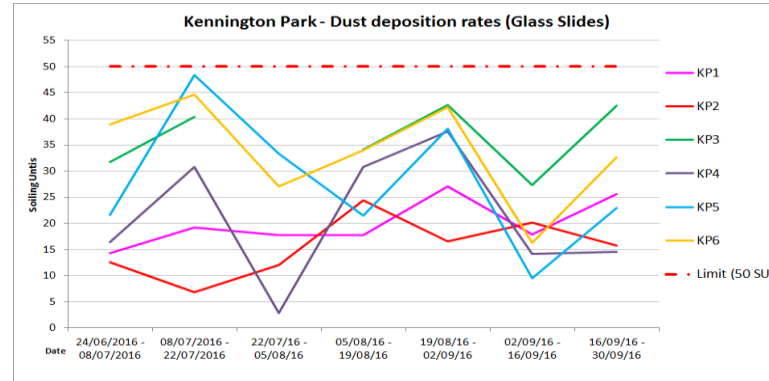
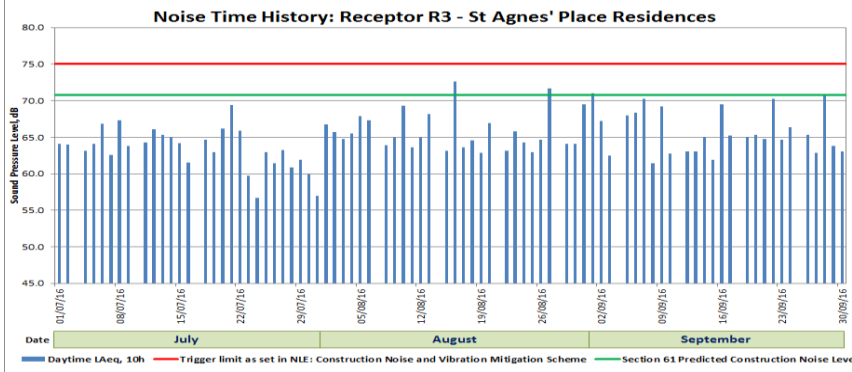
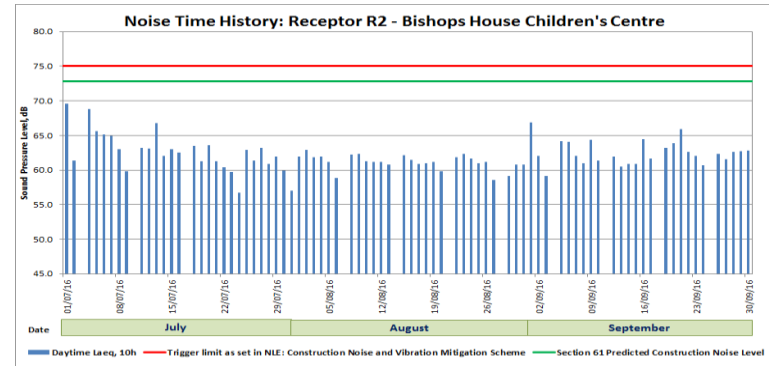
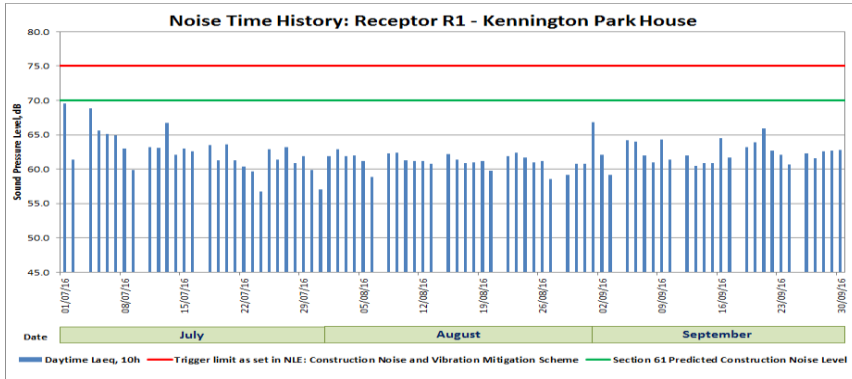
# Kennington Green Environmental Monitoring June - September



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# Kennington Park Environmental Monitoring June - September 2016

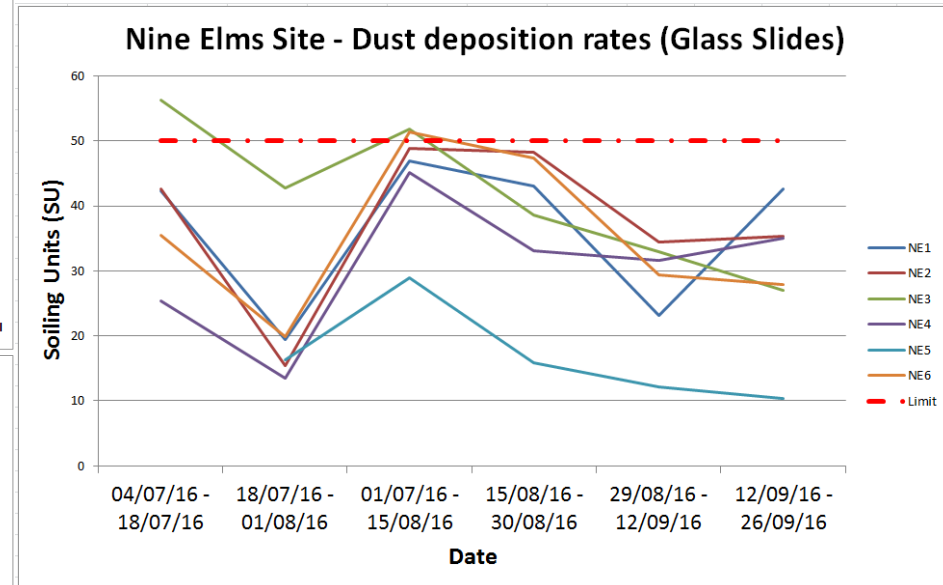
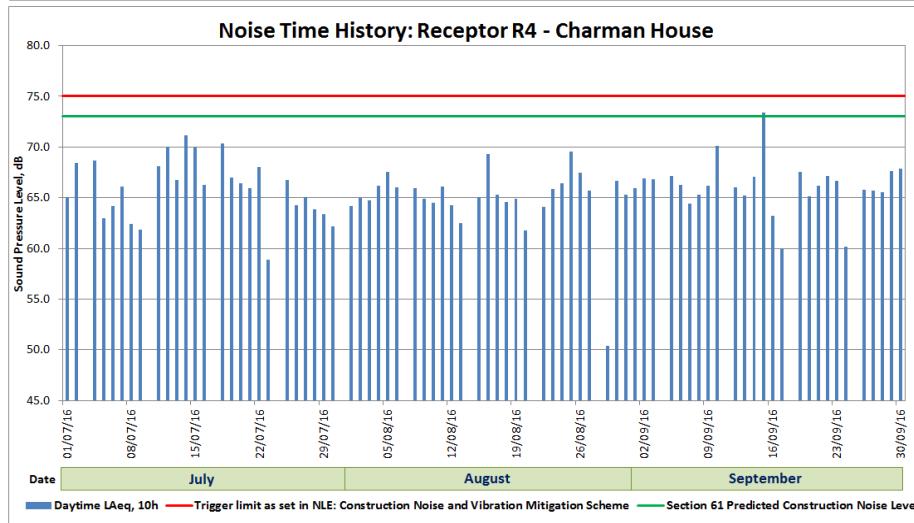
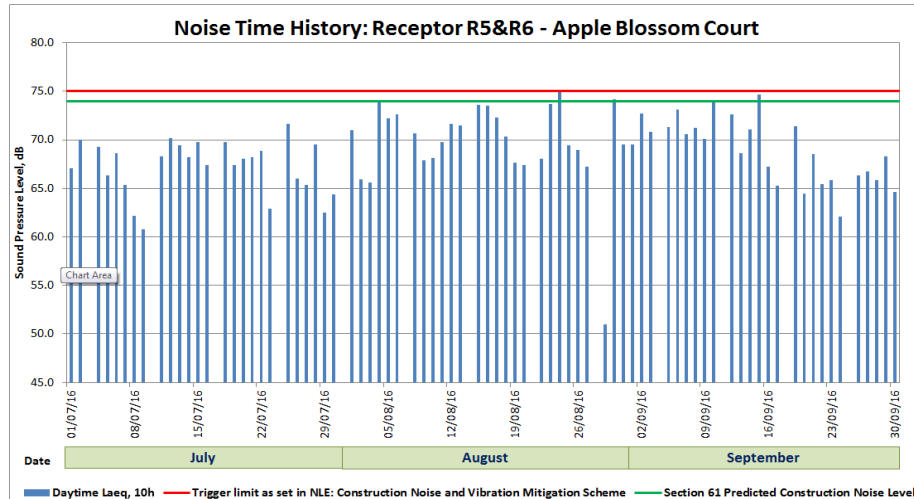




# Nine Elms Monitoring Jul – Oct 16



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Glass slide number 3 exceeded twice during the monitoring period. It is located in front of 55 Bramley Crescent and it is mainly influenced by lorry movement exiting the site.

Glass slide number 6 exceeded once. It is located far away of the Nine Elms site and it is mainly influenced by road traffic and other construction sites e.g. Barrats building.

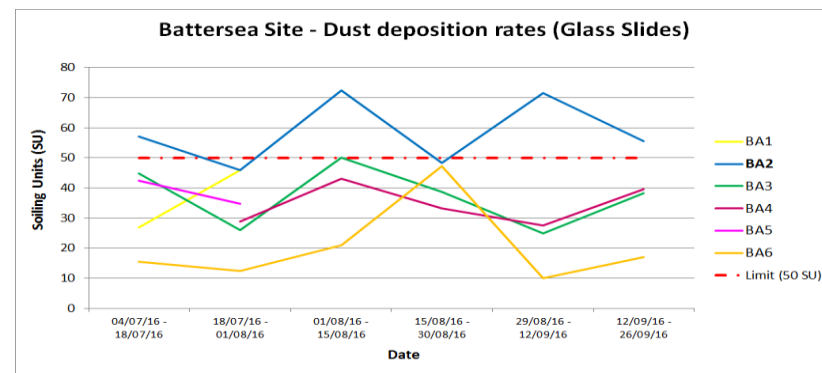
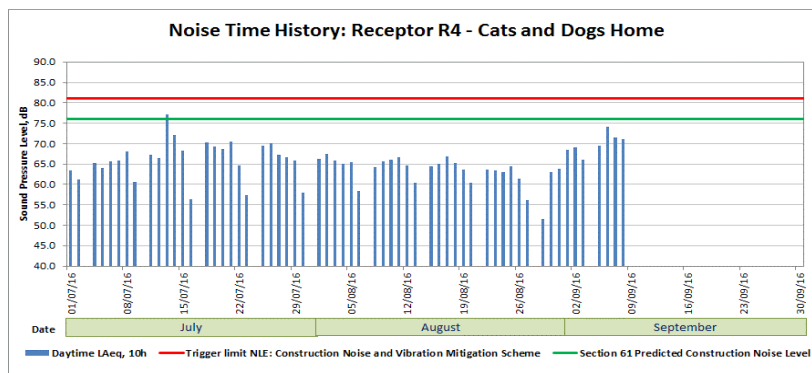
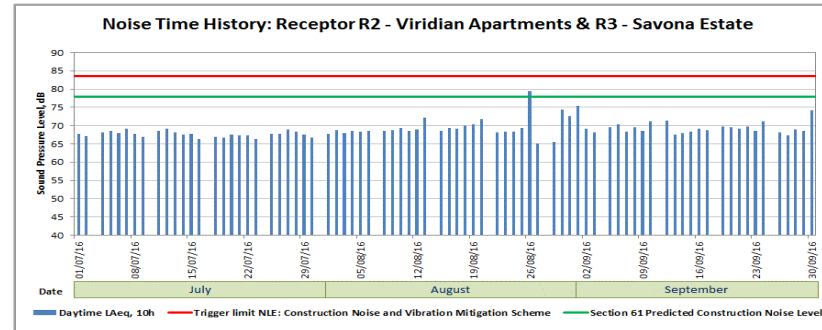
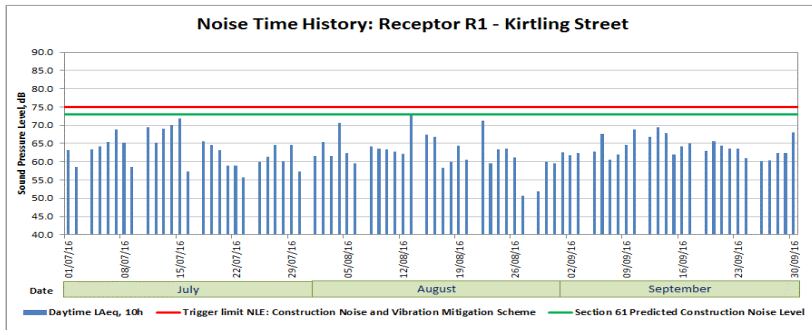


# Battersea Environmental Monitoring

## June - September 2016



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# NLE Environment and Sustainability



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**1 BARGE = 50 WAGONS**



Excavated material is being sent to Goshems Farm by barge to restore this formal landfill site to high grade arable farm land. NLE have taken wagons off the streets of London, reducing local contaminants in the air.

**TOTAL BARGES** **213** BARGES

**WAGON JOURNEYS AVOIDED** **23,365**  
WAGONS OFF THE STREETS

**TOTAL MUCK AWAY** **210,290**  
TONNES OF SPOIL

**EMISSIONS SAVINGS** **357** Tonnes of CO2





# NLE Environment and Sustainability



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This is the volume  
that 357 tonnes of  
Carbon Dioxide  
would occupy.

357 tonnes  
of CO<sub>2</sub>



57.6 m

**357 tonnes CO<sub>2</sub> = 31.7% of Battersea Power Station Capacity**





# NLE Environment and Sustainability

## Indirect Benefits



## Safer Roads in London

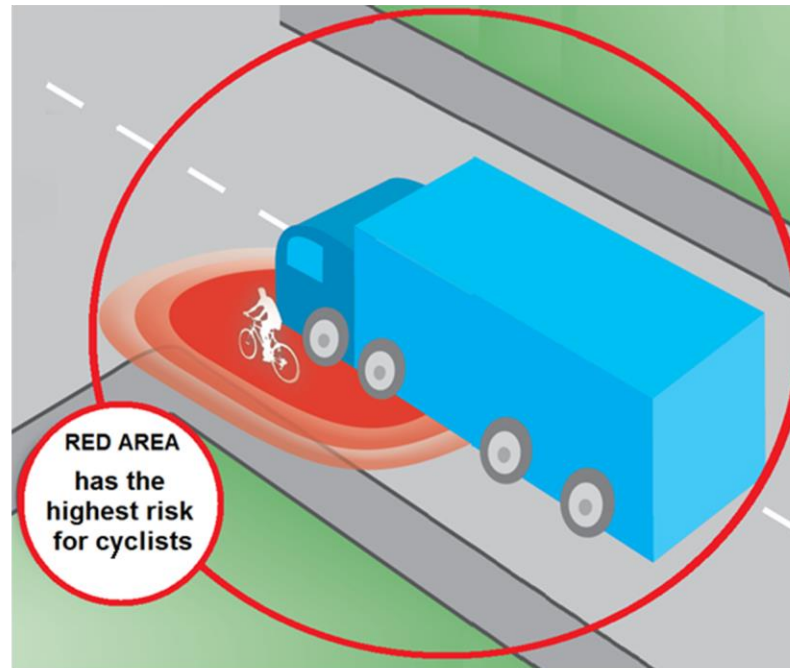
Large lorries are involved in half of the cyclist deaths in London

The Northern  
Line Extension

has **avoided**  
**11,250 wagons** in  
the streets



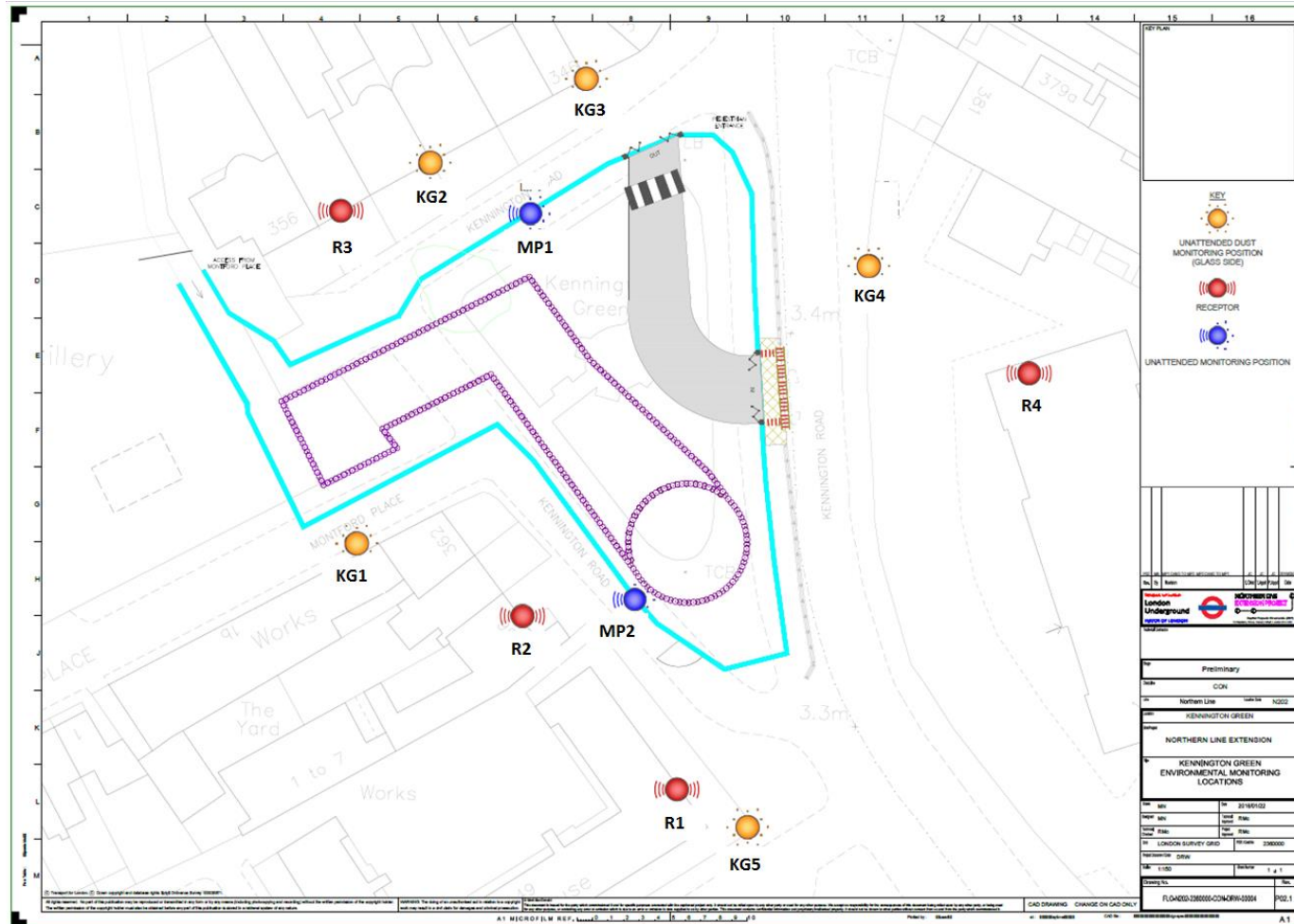
**270,000 left turns**  
during the wagon  
journeys



# Kennington Green Monitoring



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# KP Environmental Monitoring

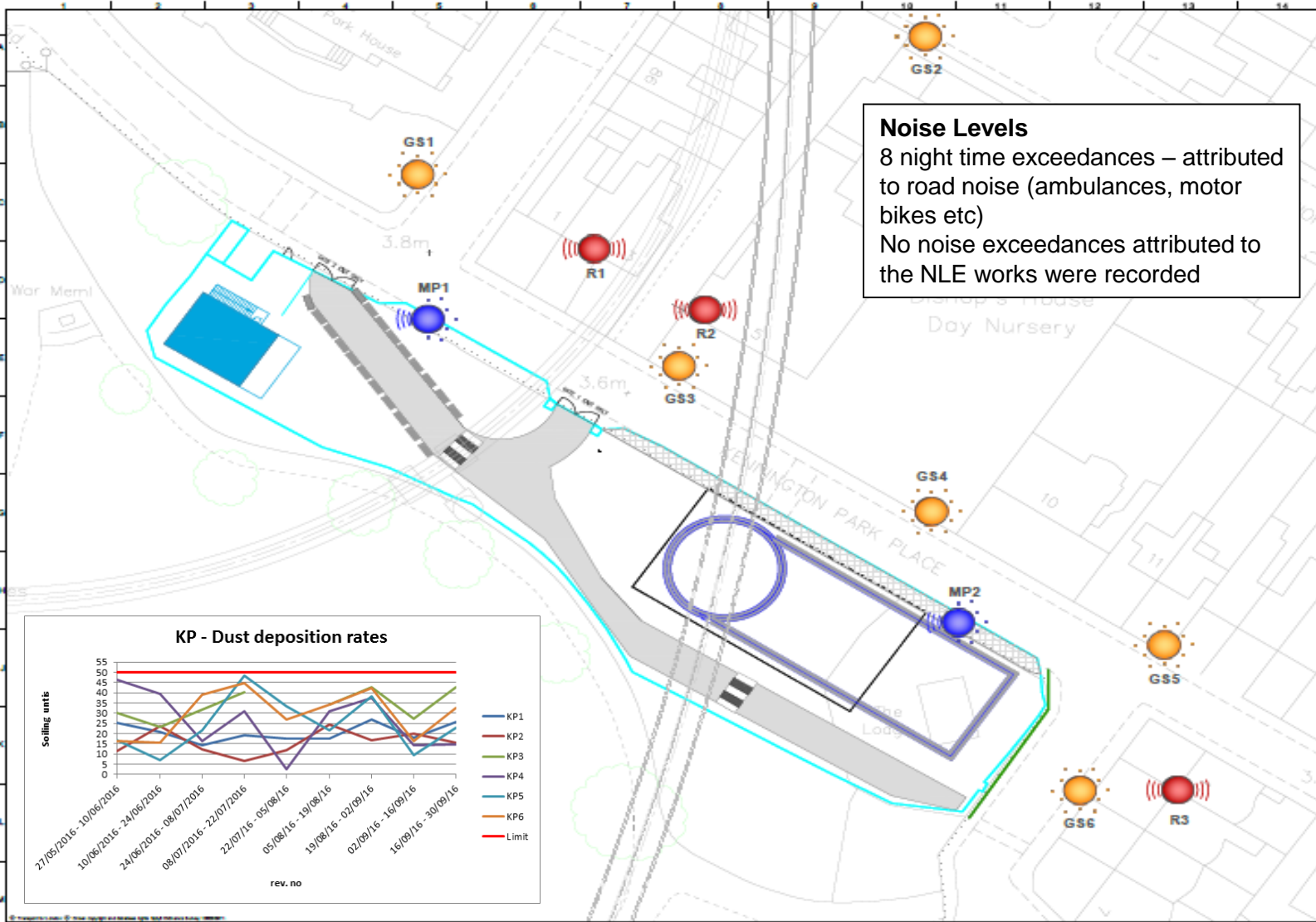
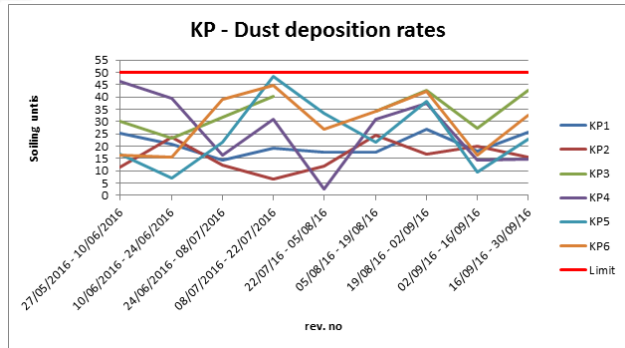
## June to August 2016



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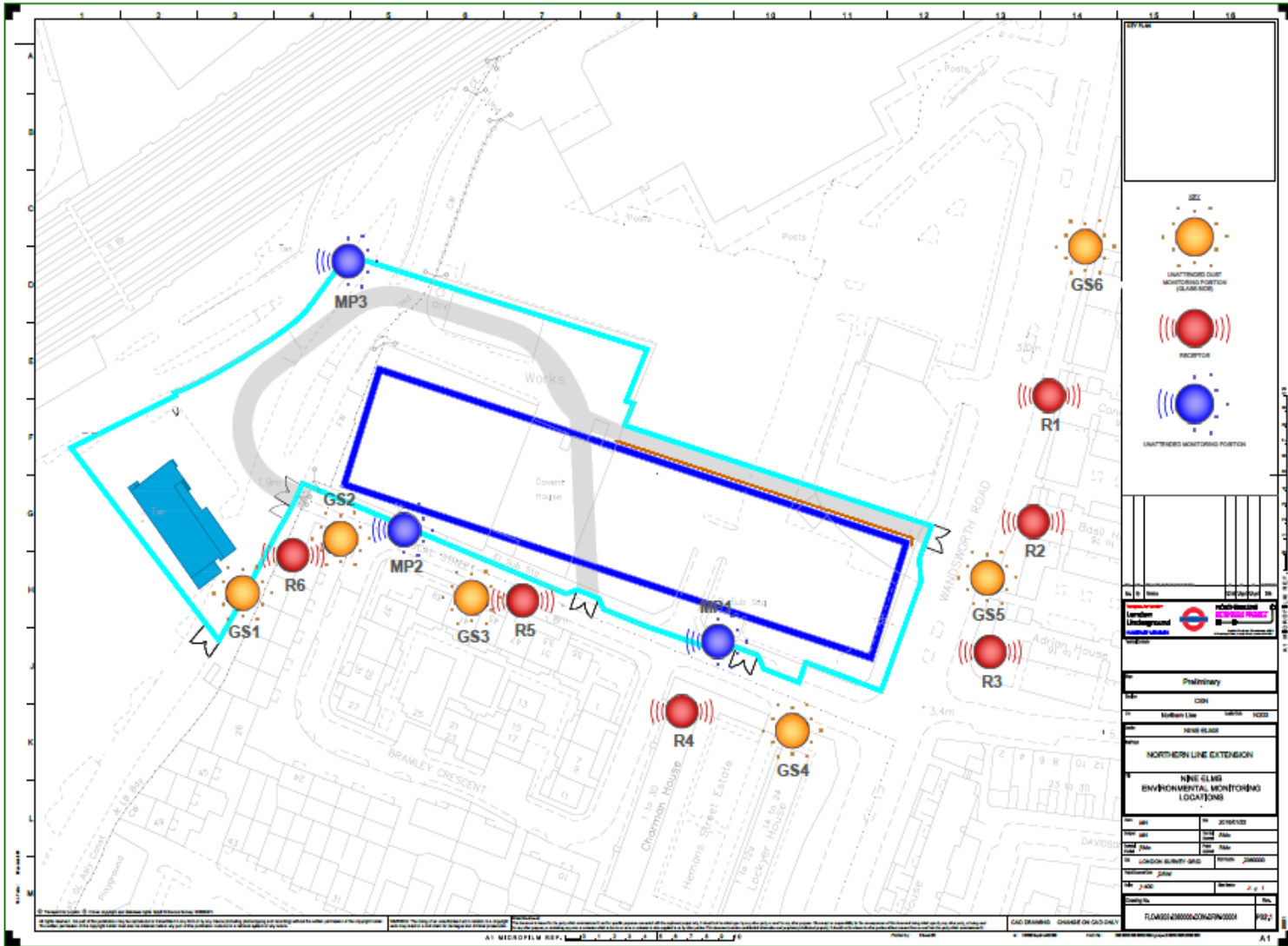
### Noise Levels

8 night time exceedances – attributed to road noise (ambulances, motor bikes etc)  
No noise exceedances attributed to the NLE works were recorded



<p>Project: NORTHERN LINE EXTENSION</p> <p>Location: KENNINGTON PARK ENVIRONMENTAL MONITORING LOCATIONS</p>	
<p>Scale: 1:1000</p> <p>Date: 2016/08/02</p> <p>Author: [Name]</p> <p>Check: [Name]</p> <p>Drawn: [Name]</p> <p>Client: LONDON SOUTHERN RAIL</p> <p>Project No: 1300000</p> <p>Sheet: 1 of 1</p> <p>File: IFLD-AG24-1300000-CON-ENV-0807</p>	<p>Rev. no</p> <p>1</p>

# Nine Elms Monitoring

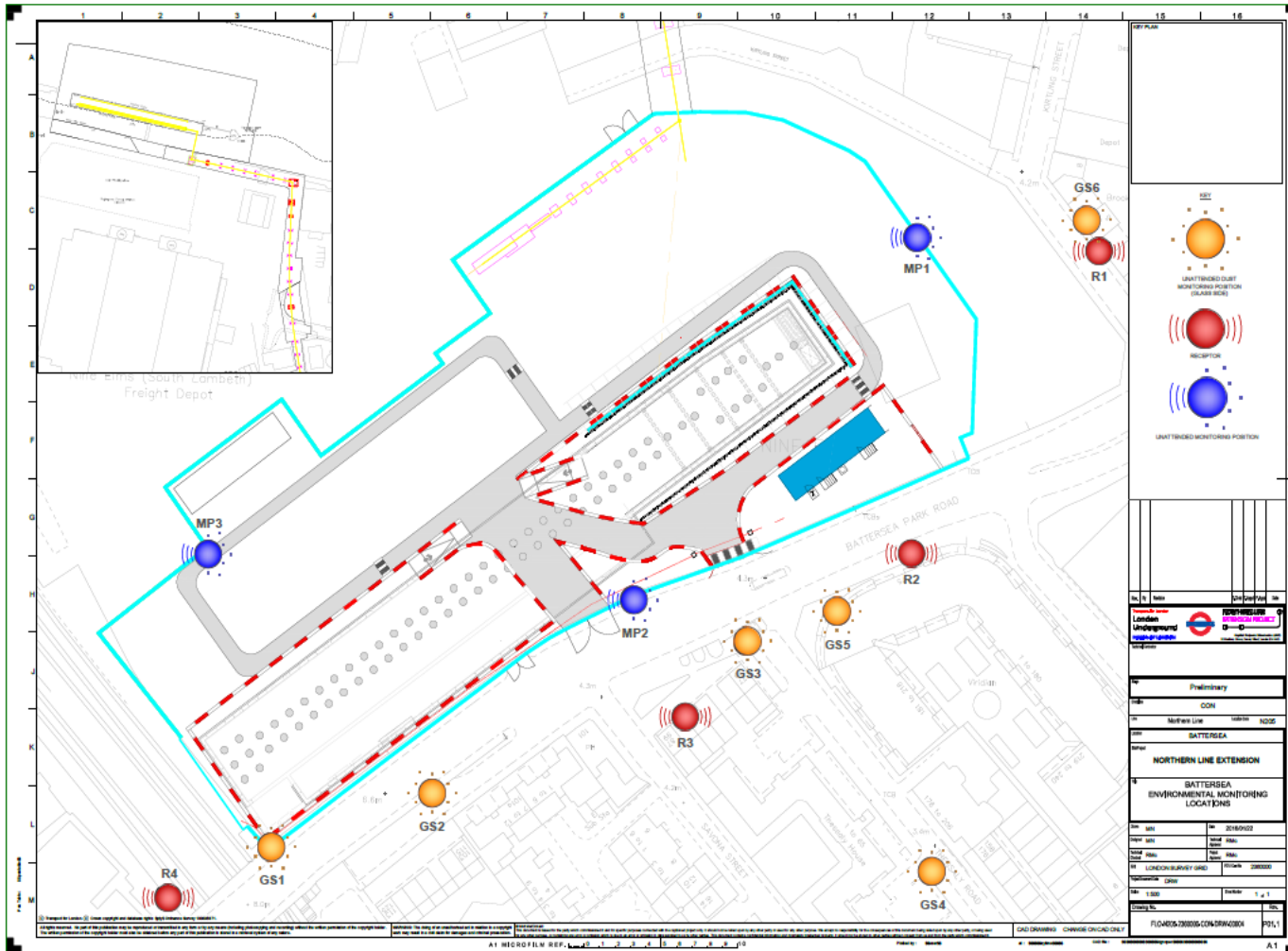




# Monitoring Locations Battersea



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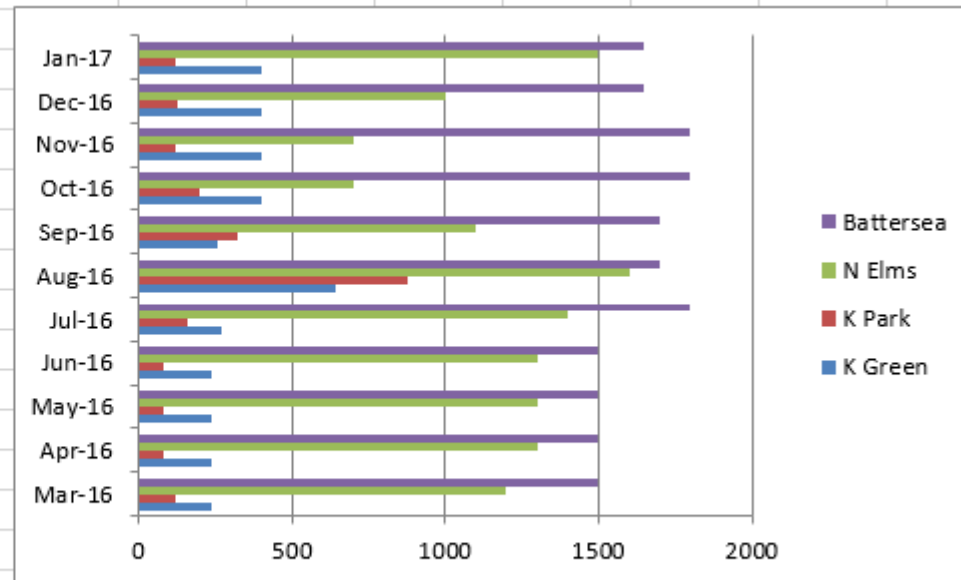


# Traffic Management / Logistics



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	K Green	K Park	N Elms	Battersea
Mar-16	240	120	1200	1500
Apr-16	240	80	1300	1500
May-16	240	80	1300	1500
Jun-16	240	80	1300	1500
Jul-16	270	160	1400	1800
Aug-16	640	880	1600	1700
Sep-16	260	320	1100	1700
Oct-16	400	200	700	1800
Nov-16	400	120	700	1800
Dec-16	400	130	1000	1650
Jan-17	400	120	1500	1650



# Helpline / Complaints Stats



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## KENNINGTON GREEN

Between 01/06/2016 and 13/10/2016:

**Total cases logged: 36**  
Cases still active: 11 (30.56%)  
Resolved cases: 25 (69.44%)

**Case type:**  
Complaint: 17 (47.22%)  
Enquiry: 18 (50.00%)  
Observation: 1 (2.78%)

**Complaint categories (17 in total):**

Construction Strategy: 3 (17.65%)  
Legal: 1 (5.88%)  
Miscellaneous: 3 (17.65%)  
Noise and Vibration: 4 (23.53%)  
Site Management: 1 (5.88%)  
Traffic Management: 1 (5.88%)  
Working Hours: 4 (23.53%)

Between 01/06/2015 and 09/10/2015:

**Total cases logged: 59**  
Cases still active: 0 (0.00%)  
Resolved cases: 59 (100%)

**Case type:**  
Complaint: 34 (57.63%)  
Enquiry: 23 (38.98%)  
Non-valid contact: 2 (3.39%)

**Complaint categories (34 in total):**

Archaeology/Heritage: 1 (2.94%)  
Behaviour: 2 (5.88%)  
Construction Strategy: 2 (5.88%)  
Dust: 2 (5.88%)  
Miscellaneous: 1 (2.94%)  
Noise and Vibration: 11 (32.35%)  
Site Management: 2 (5.88%)  
Traffic Management: 13 (38.24%)

## KENNINGTON PARK

Between 01/06/2016 and 09/10/2016:

**Total cases logged: 22**  
Cases still active: 5 (22.73%)  
Resolved cases: 17 (77.27%)

**Case type:**  
Complaint: 12 (54.55%)  
Enquiry: 8 (36.36%)  
Observation: 2 (9.09%)

**Complaint categories (12 in total):**

Dust: 2 (16.67%)  
Noise and Vibration: 6 (50.00%)  
Site Management: 2 (16.67%)  
Traffic Management: 1 (8.33%)  
Working Hours: 1 (8.33%)

Between 01/06/2015 and 09/10/2015:

**Total cases logged: 25**  
Cases still active: 0 (0.00%)  
Resolved cases: 25 (100%)

**Case type:**  
Complaint: 17 (68.00%)  
Enquiry: 6 (24.00%)  
Non-valid contact: 2 (8.00%)

**Complaint categories (17 in total):**

Construction Strategy: 1 (5.88%)  
Noise and Vibration: 4 (23.53%)  
Public Utilities: 2 (11.76%)  
Traffic Management: 10 (58.82%)

## NINE ELMS

Between 01/06/2016 and 13/10/2016:

**Total cases logged: 15**  
Cases still active: 6 (40.00%)  
Resolved cases: 9 (60.00%)

**Case type:**  
Complaint: 7 (46.67%)  
Enquiry: 7 (46.67%)  
Non-Valid Contact: 1 (6.67%)

**Complaint categories (7 in total):**

Noise and Vibration: 3 (42.86%)  
Public Utilities: 1 (14.29%)  
Site Management: 1 (14.29%)  
Traffic Management: 1 (14.29%)  
Working Hours: 1 (14.29%)

Between 01/06/2015 and 13/10/2015:

**Total cases logged: 3**  
Cases still active: 0 (0.00%)  
Resolved cases: 3 (100%)

**Case type:**  
Complaint: 2 (66.67%)  
Enquiry: 1 (33.33%)

**Complaint categories (2 in total):**

Noise and Vibration: 1 (50.00%)  
Site Management: 1 (50.00%)

## BATTERSEA

Between 01/06/2016 and 10/10/2016:

**Total cases logged: 18**  
Cases still active: 2 (11.11%)  
Resolved cases: 16 (88.89%)

**Case type:**  
Complaint: 12 (66.67%)  
Enquiry: 6 (33.33%)

**Complaint categories (12 in total):**

Noise and Vibration: 2 (16.67%)  
Site Management: 5 (41.67%)  
Traffic Management: 1 (8.33%)  
Working Hours: 4 (33.33%)

Between 01/06/2015 and 10/10/2015:

**Total cases logged: 3**  
Cases still active: 0 (0.00%)  
Resolved cases: 3 (100%)

**Case type:**  
Complaint: 1 (33.33%)  
Enquiry: 1 (33.33%)  
Non-valid contact: 1 (33.33%)

**Complaint categories (1 in total):**

Noise and Vibration: 1 (100%)





# Helpline / Complaints Stats

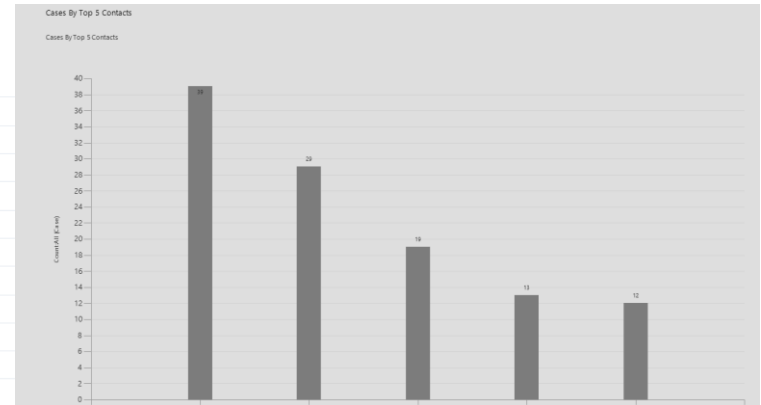
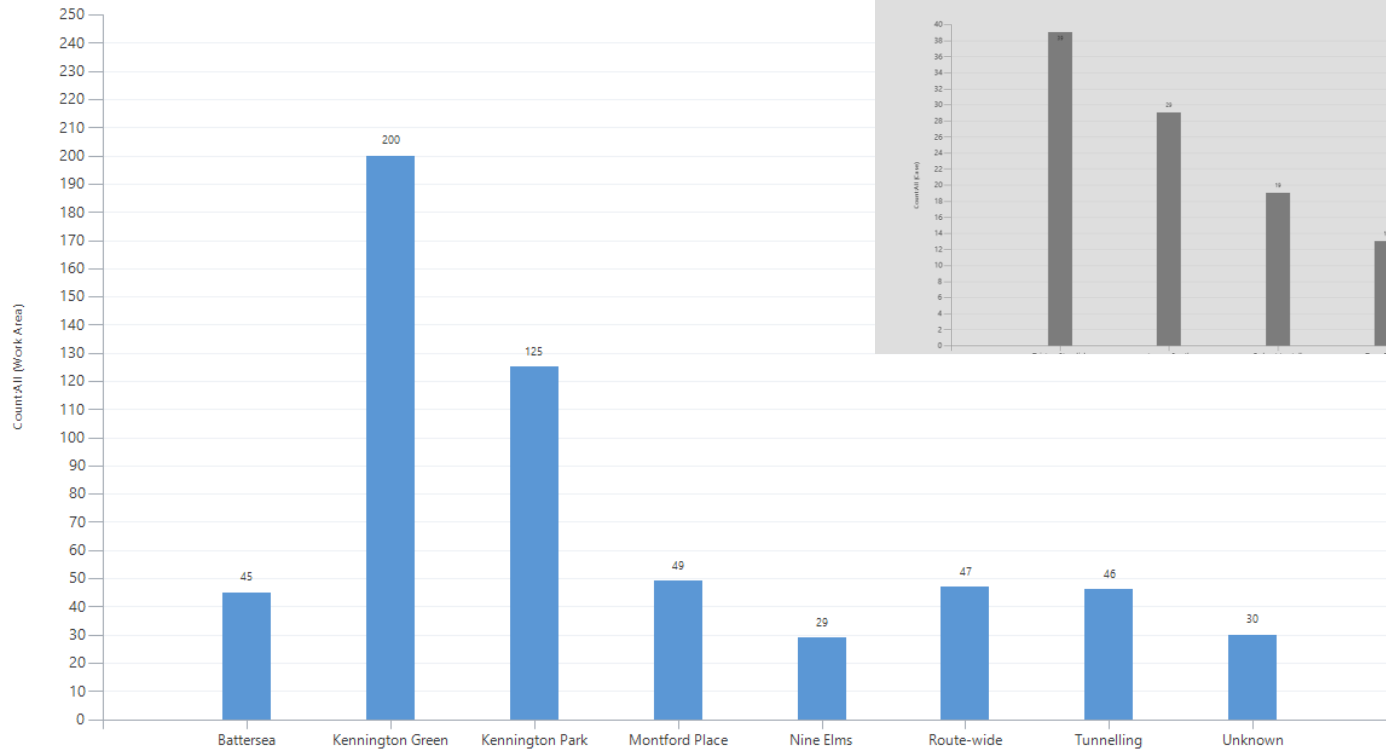


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Cases by Work Area

x

Cases by Work Area



# Your Feedback



You Suggested	We Did
Opportunities for local organisations	NLE hosted a meet the buyer event in June with over 30 local business in the area.
More information to residents	Weekly email bulleting is now delivered every Friday
Light Pollution	NLE redirected the lights on the hoardings and site lighting is under review.
Integrated meetings with major developments in the area	NLE and Tideway are joining their CLG meetings. BPSDC on same date every 6 months
Keep Roads Clean	Road sweepers are working permanently Battersea Park Road Wheel washer being organised
Request from a resident to start noisy work later on Saturdays.	The site team accommodated the most noisy activity to start later on Saturday. Also the road sweeper was instructed to start after 9 am on Saturday.
Petition to assist with the cleaning of the Silver Birch close top Battersea site	FLO got together with Tideway and commissioned an specialist company to clean the both Bridges.



# Your Feedback



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L'INC'O'ROURKE JV

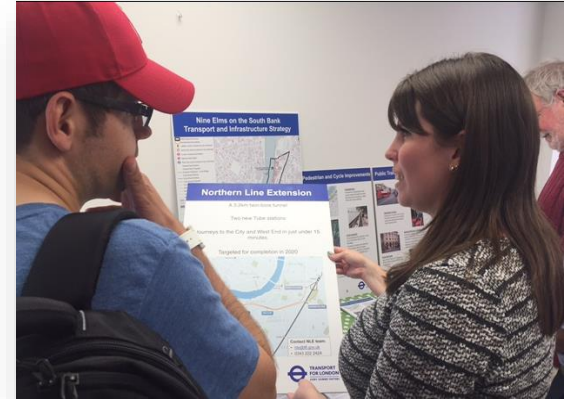
You Suggested	We Did
Fencing at Kennington Park had been contaminated with grease	The anti-climb paint was quickly cleaned away by FLO and the fence line was repositioned so as to block the opening in the fence, making it safer for everyone. Neighbours expressed their thanks.
More information and engagement about works	Provided visual and audio presentation at CLG's and Drop In Sessions. Last one at Kennington Park 28 September
Dust and noise mitigation	Jet Spray equipment moved and noise mitigated where possible. Extra acoustic blankets have been installed on site. Redirection of the dust extractor at Kennington Park.
Light pollution from Kennington Sites	Affected residents were visited and lights have been redirected and shielded where possible.
Integrated meetings with major developments	NLE and Tideway are joining their CLG meetings. BPSDC on same date every 6 months
Engagement with Local Schools	Visit to three primary schools to name the NLE TBMs
Lights causing light pollution.	CRR replied and arranged for lights to be switched off when not required / investigating options





# NLE Engagement Opportunities

- CLG meetings
- One to one meetings
- Drop in sessions
- School and Youth



## Engagement

- Stakeholder Activities
- LEAP group meetings
- Cycling safety Events



# Ways to contact us

- It is important that calls are logged through the NLE 24/7 helpdesk on 0343 222 2424
- Email [nle@tfl.gov.uk](mailto:nle@tfl.gov.uk)
- Regular Drop In sessions
- Please visit:

<https://tfl.gov.uk/northern-line-extension>