

Commissioner's Report

22 May 2019



About Transport for London (TfL)

Part of the Greater London Authority family led by Mayor of London Sadiq Khan, we are the integrated transport authority responsible for delivering the Mayor's aims for transport.

We have a key role in shaping what life is like in London, helping to realise the Mayor's vision for a 'City for All Londoners'. We are committed to creating a fairer, greener, healthier and more prosperous city. The Mayor's Transport Strategy sets a target for 80 per cent of all journeys to be made on foot, by cycle or using public transport by 2041. To make this a reality, we prioritise health and the quality of people's experience in everything we do.

We manage the city's red route strategic roads and, through collaboration with the London boroughs, can help shape the character of all London's streets. These are the places where Londoners travel, work, shop and socialise. Making them places for people to walk, cycle and spend time will reduce car dependency and improve air quality, revitalise town centres, boost businesses and connect communities.

We run most of London's public transport services, including the London Underground, London Buses, the DLR, London Overground, TfL Rail, London Trams, London River Services, London Dial-a-Ride, Victoria Coach Station, Santander Cycles and the Emirates Air Line. The quality and accessibility of these services is fundamental to Londoners' quality of life. By improving and expanding public transport, we can make people's lives easier and increase the appeal of sustainable travel over private car use.

We are moving ahead with many of London's most significant infrastructure projects, using transport to unlock growth. We are

working with partners on major projects like Crossrail 2 and the Bakerloo Line Extension that will deliver the new homes and jobs London and the UK need. We are in the final phases of completing the Elizabeth line which, when open, will add 10 per cent to central London's rail capacity.

Supporting the delivery of high-density, mixed-use developments that are planned around active and sustainable travel will ensure that London's growth is good growth. We also use our own land to provide thousands of new affordable homes and our own supply chain creates tens of thousands of jobs and apprenticeships across the country.

We are committed to being an employer that is fully representative of the community we serve, where everyone can realise their potential. Our aim is to be a fully inclusive employer, valuing and celebrating the diversity of our workforce to improve services for all Londoners.

We are constantly working to improve the city for everyone. This means freezing TfL fares so everyone can afford to use public transport, using data and technology to make services intuitive and easy to use, and doing all we can to make streets and transport services accessible to all. We reinvest every penny of our income to continually improve transport networks for the people who use them every day.

None of this would be possible without the support of boroughs, communities and other partners who we work with to improve our services. We all need to pull together to deliver the Mayor's Transport Strategy; by doing so we can create a better city as London grows.

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This paper will be considered in public

I Introduction

This report provides a review of major issues and developments since the Board meeting of 27 March 2019.

2 TfL Scorecard

Period 13

Breakdown of scorecard measures categories¹:

Safety and Operations: **25%** Customer: **25%** People: **25%** Financial: **25%**

Long-term objectives	2018/19 scorecard	Period 13		Year to date	
Outcome	Measure	Actual	Target	Actual	Target
Healthy Streets and healthy people (18%)					
London's transport system will be safe and secure	Reduction in people killed or seriously injured on the roads from 2005-09 baseline (%) ²	35.8% ■	44.4%	36.5% ■	45.4%
	Reduction in people killed or seriously injured on roads from 2005-09 baseline (incidents involving buses) (%) ²	58.6% ■	49.2%	58.9% ■	55.6%
	Injuries on the public transport network	763 ■	855	11,279 ■	11,683
London's streets will be used more efficiently and have less traffic	Operational improvements to sustainable travel ³	- ■	996	16,985 ■	15,000
London's streets will be clean and green	Number of London buses that are Euro VI compliant ⁴	350 ■	n/a	6,950 ■	6,050
More people will travel actively in London	Healthy Streets scheme assessment	11% ■	10%	11% ■	10%
A good public transport experience (17%)					
Journeys by public transport will be fast and reliable	Tube excess journey time (minutes)	4.80 ■	4.64	4.49 ■	4.50
	Average bus speeds (mph)	9.3 ■	9.2	9.3 ■	9.2
Public transport will be accessible to all	Additional time to make step-free journeys (minutes)	9.1 ■	9.0	9.1 ■	9.0
Journeys by public transport will be pleasant	Customer satisfaction (percentage of Londoners who agree we care about our customers) (%)	48% ■	49%	49% ■	49%

Safety and operations (25%)

Customers (25%)

1. Please note year to date results are subject to approval by the Chair of the Audit and Assurance Committee.

2. Reduction in people killed or seriously injured: measured in calendar years (YTD is January to Dec 2018). These are provisional estimates and may be subject to change.

3. Operational improvements to sustainable travel: while the full year target was achieved earlier in the year, the phasing of the targets resulted in a negative variance in period 13.

■ Achieved
 ■ Partially achieved
 ■ Not achieved

Long-term objectives	2018/19 scorecard	Period 13		Year to date	
Outcome	Measure	Actual	Target	Actual	Target
New homes and jobs (2.5%)					
Transport investment will unlock the delivery of new homes and jobs	The percentage of affordable houses we take to market in the year (%)	62% ■	50%	62% ■	50%
Mode share (5%)					
80% of journeys will be made by sustainable modes in 2041	Improve sustainable mode share: movement of 4 elements compared to 2017/18:				
	a. Increase in cycling in Central London zone	2 of 3 ■	3 of 3	3 of 4 ■	4 of 4
	b. Increase in public transport journeys				
	c. Increase in walking				
	d. Decrease in traffic index				
	Cycling (% increase to 2014 Baseline)	Increase ■	Increase	Increase ■	Increase
	Passenger journeys (millions)	Increase ■	Increase	Increase ■	Increase
	Traffic index	Increase ■	Decr.	Increase ■	Decr.
	Walking ⁵	n/a	n/a	Increase ■	Increase

Customers (continued)

5. Sustainable mode share improvement: the walking survey is annual and took place in Period 12.

Long-term objectives	2018/19 scorecard	Period 13		Year to date		
Outcome	Measure	Actual	Target	Actual	Target	
All MTS themes (7.5%)						
All MTS outcomes	Deliver key investment milestones (%)	90% ■	90%	81% ■	90%	Customers (continued)
	Open Elizabeth line central section	Delayed ■	Deliver in P10	Delayed ■	Deliver in P10	
People (25%)						
A capable and engaged workforce representative of London	Workforce representativeness					People (25%)
	– all staff (%)	69.9% ■	70.7%	69.9% ■	70.7%	
	– director/band 5 (%)	37.8% ■	46.6%	37.8% ■	46.6%	
	Inclusion index (%) ⁶	n/a	-	43% ■	46%	
	Total engagement (%) ⁶	n/a	-	56% ■	57%	
Financial (25%)						
We are prudent and cover our costs	Net operating surplus (£m)	£24m ■	(£87m)	£358m ■	£96m	Financial (25%)
	Investment programme (£m)	£95m ■	£234m	£1,633m ■	£1,774m	

6. Inclusion index/total engagement: these are based on the annual Viewpoint survey which was reported in period 10.

Our Period 13 scorecard covers 3 March to 31 March 2019, with year-to-date results representing the full year outcome.

We have known for the last few periods that we would not meet our target to reduce the number of people killed and seriously injured. However, on our public transport network – where we have more direct control – we have met our death and injury reduction targets by reducing these figures considerably.

We met all our other Safety and Operations targets. This includes delivering significant time savings for pedestrians, cyclists and bus users by improving the timings of our traffic signals, and bringing the total number of Euro VI compliant buses to nearly 7,000 vehicles. This achievement will greatly improve London's air quality and has been an important part of the introduction of the Ultra Low Emission Zone.

Over the last year we have improved the performance of our Tube and bus services, and successfully increased our customer satisfaction score to 49 per cent.

We have made great progress on our delivery of housing for Londoners, exceeding our affordable housing target by 12 per cent.

Walking, cycling and public transport have all improved in 2018/19. This partially meets our target, but there has been an

increase in motor traffic that we need to address as we move towards the aim in the Mayor's Transport Strategy for 80 per cent of journeys to be on foot, by cycle or using public transport by 2041.

We delivered 81 per cent of our investment milestones for the year. The milestones not met include a number that were affected by factors outside of our control, such as the decision on the Development Consent Order for Silvertown Tunnel coming later than we had expected. We also did not meet the target of opening the central section of the Elizabeth line in 2018, and our 2019/20 Scorecard will include a revised delivery milestone for the scheme.

Our workforce representation for all staff improved overall, but owing to our current low level of recruitment and continuing change in our organisation, we did not meet either of our workforce representativeness targets. Our annual Viewpoint survey has shown that our total staff engagement measure has remained steady, missing our target by one per cent, and we missed our inclusion index measure by three per cent.

In a difficult financial climate we have met both of our financial targets, which supports our longer-term objective to deliver a net operating surplus by 2022/23. This is an excellent final result against a challenging target.

3 Safety and security

Croydon tram overturning

We continue to implement all of the recommendations from the Rail Accident Investigation Branch (RAIB) following the tragic tram overturning at Sandilands in November 2016. All London trams have been fitted with vigilance protection devices. Any sign of driver distraction or fatigue will result in the driver being alerted, with such instances being fed back to the control room for action. An upgrade to the glazing has also been completed.

As reported previously, we have appointed Engineering Support Group Limited to develop a system to reduce tram speeds automatically should they over speed at key locations. Work is now under way and is expected to be completed this year. This is the first such system for trams in the UK. We have shared this with other tram owners and operators.

Fatal injury reporting

So far in 2019, 41 people have been killed on London's roads and 1,220 have been reported as seriously injured. We have committed to improving the transparency and timeliness of casualty reporting, and are now publishing the provisional figures of people killed. The first such report was published on 11 April 2019, including the date, the road, the mode of transport and the borough in which the person was killed.

Vision Zero

Tackling road danger and delivering on the Mayor's Vision Zero commitments continues to be a priority for the Roads and Transport Policing Command (RTPC).

Work has continued on a new three-tier policing approach to deliver road danger reduction. This is through intensifying police focus on the most dangerous drivers and increasing the deterrent effect through widespread high visibility road-side operations. Action is focused on removing the most dangerous offenders from our roads.

In April, the RTPC made 24 arrests, issued around 550 Traffic Offence Reports and seized 93 vehicles, as part of a 24-hour 'Cubo operation' to tackle uninsured and unlicensed drivers. Arrests were made for various offences including driving under the influence of alcohol and drugs, wanted-on-warrant, and possession of drugs. Traffic Offence Reports, which will result in prosecutions or Fixed Penalty Notices, were issued for offences ranging from driving while using a mobile phone to excess speed and dangerous driving. Ninety-three vehicles were seized for being driven without insurance, or not in accordance with the conditions of a licence.

The RTPC is focusing on motorists and riders along the A12 who exceed the speed limit or commit other road traffic



offences as part of Operation Neso, which concentrates on high-risk roads. Over a 10-week period from 4 February to 16 April, 520 drivers were found travelling at excess speeds and received fines. Of those drivers, 187 face potential disqualification owing to their high speed. Six drivers were caught driving in excess of 100mph, with 109mph being the highest speed recorded.

On this six-mile stretch of the A12, there have been five fatal road collisions between 9 April 2018 and 1 January 2019. In the previous 10 years there had been one fatality. Since road enforcement has been put in place to specifically target this problem area, there have been no fatalities or serious collisions.

We are also working with the Metropolitan Police Service (MPS) to increase the levels of safety camera enforcement. This will be done through fixed cameras as well as mobile speed enforcement equipment, including mobile speed vans and recently purchased speed guns and tripods. On 1 April 2019, the RTPC mobilised officers to run 110 speed enforcement operations as part of a week-long operation and as a result, officers dealt with more than 1,400 speeding motorists. We are continuing to work closely with London Councils to develop a new and comprehensive approach to speed enforcement on borough roads.

London Road Safety Council Vision Zero event

On 10 April 2019, we hosted an event with elected members from the London boroughs to discuss our joint role in delivering Vision Zero. The event was particularly well received, with elected members feeding back positively and stating their commitment to embedding Vision Zero in their boroughs.

Workplace violence and aggression

It is imperative that all staff feel safe and supported at work. Following staff concerns around the rise in aggression and threatening behaviour towards them, mirroring the rise in violence being seen across London, we have commissioned a review of our approach to preventing and tackling workplace violence and aggression. This is looking at how we can better support staff in the prevention of workplace violence and aggression, and how we can better coordinate our approach for both directly employed staff and the workforce of our suppliers. It will also look at how we can improve staff support following an incident and the effectiveness of investigation and pursuit of prosecution against assailants.

To support this work we held a summit on 19 March to hear from staff on the frontline about their experience of workplace violence and aggression. I joined the Deputy Mayor for Transport,

Heidi Alexander to open the event. Our Trade Unions, ASLEF, GMB, LTDA, PCB, RMT, TSSA, UNITE and police partners also spoke to show their support for tackling these issues.

We have captured all issues and ideas raised at the summit, including those put forward by speakers during the workshop sessions and the feedback and plenary discussions. We are producing a summary of these and will make this available to Trade Unions. The output from the summit will inform the strategic review into tackling workplace violence and aggression.

Workforce safety

We are rolling out a new approach to workforce safety, which is focused on improving how we communicate information that can have an impact on the safe operation of the Tube network and the safety of our staff. This comprehensive approach has taken lessons from other industry bodies (such as Network Rail and the Rail Safety Standards Board) to ensure that all our operational communication is based on the four ABC-P principles: accurate, brief, clear and professional. We have developed it with input from frontline colleagues, managers and health and safety representatives. It will make working on the network safer for all.



We are currently trialling the use of body worn cameras to help protect our LU staff

Working in a public-facing environment can result in our staff being physically assaulted or abused. We are currently trialling the use of body worn cameras to help protect our staff. The trials are taking place at the locations where workplace violence is most frequently reported. We will review the data after one and three months to see how successful the trial is and how we can roll it out.

Customer safety on the Tube

One of our main safety focuses is on customers travelling with luggage, which is a factor in a significant number of customer accidents during this busy period. To help make travelling across the network easier, we are using station and train announcements, making improvements to signs and updating our journey planner tool to help customers understand where best to interchange, and where they can use lifts instead of escalators or stairs.

Tackling serious youth violence

We are working with the MPS and British Transport Police to support the wider policing effort to reduce levels of serious youth violence in the Capital. In autumn last year, we jointly approved with the MPS the moving of 100 police officers from the RTPC to the Violent Crime Task Force. These officers are providing valuable support to the task force including stop and search, knife arches, metal detector wands and Automatic Number Plate Recognition.

Direct Vision Standard

The proposed Heavy Goods Vehicle (HGV) Safety Permit Scheme for HGVs more than 12 tonnes has been developed to implement the Direct Vision Standard (DVS). The DVS was created to improve the safety of all road users, particularly the most vulnerable, such as pedestrians, cyclists and motorcyclists, by measuring vehicle blind spots. The scheme would require all HGVs more than 12 tonnes to obtain a permit to operate in London and all those with an unacceptably low DVS rating to fit additional safety equipment.

On 26 April 2019 we published the findings of the latest consultation on the scheme's proposals. This showed 60 per cent support and feedback has been used to make further refinements to our proposals. On the same day, the consultation on the finalised scheme proposals was launched, including on a Traffic Regulation Order to make the scheme mandatory from October 2020, which will close on 23 May 2019.

Subject to the outcome of this consultation, permits for HGVs will be available from October 2019, with scheme enforcement launching a year later.

Hammersmith Bridge closure

We are working closely with Hammersmith & Fulham Council to upgrade the 132-year-old Hammersmith Bridge as soon as possible.

We are funding the ongoing investigation and design work and are lending the council our support to advance this complex stage of work as quickly as possible. Once this work is complete, the timescales and costs of the repair work will be much clearer. We will be working with Hammersmith & Fulham Council to identify appropriate funding once we have a clearer idea of costs.

In the meantime, we are doing all we can to minimise the impact of the closure for those who live, work and travel in the area. We recently announced details of changes we are making to the local bus network to improve links for people affected by the closure. The changes include rerouting services to provide direct links to the Tube network at Putney Bridge, as well as a new direct link between Barnes and Hammersmith. We plan to introduce these changes on Saturday 18 May and are inviting customer views on the changes.

We have also begun making changes to traffic signal timings in the area to help the flow of all traffic, and will continue to monitor the situation to determine whether further changes are required.

Innovation in roadworks management

Our TfL Lane Rental-funded London RoadLab programme came to an end on 1 May 2019. Nine suppliers showcased the products they had produced within the 10-week development period to an audience of 200 industry stakeholders.

We are now considering how we can bring to market the best solutions from suppliers that help roadworks become safer, more inclusive and less disruptive.

We have approved a further £830,000 for two proposals. The first is for Street Manager – a new system being developed by the Department for Transport (DfT) – which will enable all highway authorities and works promoters in England to exchange information relating to roadworks in one common system. The second proposal is a tool to provide spatial visualisation of journeys affected by roadworks in the London Borough of Southwark. This will develop an evaluation that retrospectively maps the movement of dispersed road users, where roadworks are taking place. This will help us to better plan for future works.

Intelligent Speed Assistance and Bus Safety Standard

Seven-hundred vehicles in the bus fleet now have Intelligent Speed Assistance (ISA) to enhance compliance with speed limits, particularly the increasing number of 20mph zones. ISA lets vehicles operate up to the posted speed limit by tracking them against a digital speed map. It has been added in advance of the new Bus Safety Standard – a wider range of safety equipment and enhanced vehicle design – which will feature on new buses in 2019. The standard includes: near-side and off-side mirrors with a broader field of view to minimise blind spots; better interior anti-slip

floors in passenger areas; technology making buses more noticeable to pedestrians, cyclists and motorcyclists; and dashboard lights to signal when drivers accelerate or brake to help avoid rare incidents of pedal confusion. The standard sets out continuing safety enhancements required for London buses up to 2024 and will evolve to take account of technological innovation.

Bus Safety Innovation Challenge

In March, we launched our Bus Safety Innovation Challenge, which will stimulate innovation in bus safety within the wider automotive technology market and enable other forms of proven innovation to be incorporated into the Bus Safety Standard. This will help us achieve our Vision Zero targets of no deaths caused on or by a bus by 2030 and no deaths or serious injuries on our highways by 2041. We have also held two events with suppliers of safety products and London's bus operators, to encourage them to bid for funds in the challenge. The deadline for application is June 2019, and we expect to announce successful bids in July.

Bus driver safety training

We are bringing new technology into bus driver safety training to make it more realistic and feel closer to the types of risks encountered on the London road network, and how best to deal with them. Drivers will wear virtual-reality headsets to view a selection of

23 filmed journeys in which accidents might occur, particularly with vulnerable road users such as cyclists, pedestrians and motorcyclists.

The headsets give them a 360-degree view from behind the wheel, including a wide angle of the road ahead, side views out of windows and their near and off-side mirrors. The sensation of passing traffic lights and junctions, and overtaking vehicles can also be felt. Scenarios are then stopped at points where risks might materialise to discuss the best decisions that can be made in these circumstances.

These interactive clips form the central part of a one-day course called Destination Zero which started on 14 May and will run for around 18 months so all 24,500 drivers in the fleet can attend. Also included is a briefing on Vision Zero, looking at the wider partnerships and contributions required to achieve no road deaths or serious injuries in London by 2041, and no fatalities on or by a bus by 2030. New starters who join London bus companies after the course concludes will get a condensed version built into their inductions. The one-day training also contributes to Government-accredited forms of professional competence bus drivers must keep up to date to remain qualified.

Freight Operator Recognition Scheme Future Event

On 26 April we chaired the Freight Operator Recognition Scheme (FORS) Future Event. This was designed to enable discussion on how the Governance and Standards of the scheme should operate in the future, and also to present an updated FORS Operational Model, which has evolved following feedback from previous events.

It was attended by key industry stakeholders including the Freight Transport Association (FTA), the Road Haulage Association (RHA) and the Office of the Traffic Commissioner (OTC), as well as representatives from DfT, High Speed 2, Chartered Institute of Logistics and Transport, Tideway, Skanska, Confederation of Passenger Transport and Motorcycle Industry Association.

The presented FORS Hybrid Model shows some substantial changes to the current operation of the scheme and is designed to address industry's concerns. The proposed changes include:

- A clear separation between the Commercial analysis and the Governance of this scheme
- The creation of an independent Governance Group which is directly contracted to TfL (instead of to the administration body)

- The Governance and Standards task would also include the approval of both training and certification bodies independent of the administration body

We received positive feedback and the FTA, RHA and OTC support our approach. This feedback will help us to review and refine the transitional and re-procurement options.

London Bridge inquests

The inquests arising from the deaths in the London Bridge and Borough Market terror attack on 3 June 2017 began on 7 May 2019 and will last approximately two months. We are an 'interested person' in the inquests for the two people who died on London Bridge – Christine Archibald and Xavier Thomas. We will be giving evidence about physical protective security measures on London Bridge and the removal of the pedestrian guardrails in 2010. The City of London Corporation, which owns the physical structure of the bridge, will also be giving evidence about protective security measures.

4 Healthy Streets and healthy people

Walking and cycling **East-West Cycleway**

Work continues on the remaining non-core parts of the East-West Cycleway. North Carriage Drive construction started in February 2019 and will be completed ahead of the British Summer Time events in Hyde Park this summer.

All the required construction works at Trinity Square were completed in October 2018. The final stage of planned resurfacing works, which were postponed from November owing to a series of unplanned events, was completed in March 2019. With all works now successfully completed and the new junction in operation, the project is in the process of being closed out. This scheme has received positive feedback from the City of London and local stakeholders.

Cycleway 4

We have completed the designs, construction programmes and traffic management plans, and subject to the necessary approvals, will be starting works in July 2019. Consultation for the Lower Road section is planned to start in summer 2019 and will be delivered by the London Borough of Southwark.

Cycleway 9

We carried out localised public consultation for revised proposals at Kew Bridge and Duke's Avenue in early 2019, and we are currently reviewing the feedback. Plans for the Kew Bridge and

Hounslow sections are progressing well, with the first drafts due in summer 2019. Construction and traffic management plans are also under way and due for completion this summer.

Cycleway 11

We published a statement on Cycleway 11 on 19 March, outlining our intended way forward following the judicial review. In the short-term we will focus our resources on delivering other much-needed cycle routes. However, Swiss Cottage needs to be made safer and we will work with Camden Council on plans to transform this intimidating, traffic-dominated and outdated junction. We also remain keen to work with the Crown Estate Paving Commission on how they can address road danger in Regent's Park.

Cycling future routes

We are making good progress with the route between Acton and Notting Hill Gate (formerly Cycleway 10). Construction started on 18 March for the outer section between Acton and Wood Lane with major carriageway works starting on 8 April. Proposals for the inner section between Wood Lane and Notting Hill Gate opened for public consultation in early May 2019.

Work continues on several major new routes, identified in the Strategic Cycling Analysis. Stakeholder engagement for four routes was carried out between January and March 2019 to get views and



Work is continuing to deliver a range of cycling routes, encouraging more people to take up cycling

suggestions on our initial plans. Following this engagement, public consultation started for the first route in early May, between Hackney and the Isle of Dogs. Consultations for two more routes are planned for June, between Camden and Tottenham Hale, and the first phase of the route between Ilford and Barking Riverside. We are also planning to consult the public later in the year on additional routes, including Dalston to Lea Bridge and Greenwich to Woolwich.

Mini-Hollands, Quietways and Central London Grid

We continue to make good progress on the Mini-Hollands, Quietways and Central London Grid programmes, with the focus on completing and opening whole or significant sections of these routes. We have constructed 120km and have a further five kilometres

under construction through inner and outer London. Over the summer, we will start to brand all new routes as Cycleways, as outlined in the Cycling action plan. Forty-three kilometres out of the original Central London Grid 85km network are now complete. Recently completed projects include new pedestrian and cycle crossings at Edgware Road, which will remove a key barrier on Quietway 2, and a route connecting Kensington High Street to Notting Hill in Kensington and Chelsea.

We have also introduced new pedestrian and cycle crossings across Euston Road at Judd Street, and new segregated cycle lanes on Midland Road as part of Cycleway 6. We plan to deliver a further 65km over the next few years and we continue to work with the boroughs to develop plans for new routes. Our

current plans include a link between Cycleway 2 and 3 in Tower Hamlets, and a link between Dalston and Bethnal Green via Queensbridge Road in Hackney.

The Mini-Hollands programme involves 98 infrastructure schemes and five behaviour change schemes across three outer London boroughs – Waltham Forest, Enfield and Kingston. Thirty-two of the 103 Mini-Holland schemes are now complete, including the A105 Green Lanes scheme, a five-kilometre protected cycle route linking Enfield Town to Palmers Green and installation of a new pedestrian and cycle bridge adjacent to Kingston Station. The 50 tonne, prefabricated structure will create a four-metre wide walking and cycling link from Kingston Station to the Thames and across to Richmond. Schemes currently under construction include protected cycle routes on Wheatfield Way in Kingston, on the A1010 in Enfield and on Lea Bridge Road in Waltham Forest. Further schemes are progressing through design and consultation, including a number of cycle links and Enfield's Quieter Neighbourhoods.

Bus stop bypasses

The project to retrofit zebra crossings at 43 bus stop bypasses on existing Cycleways was completed on 5 March 2019 as planned.

Rapid electric vehicle charging

We are spending £18m and working with the boroughs and other organisations to provide the rapid charging points the Capital needs. Rapid charge points can charge an electric vehicle battery in 20-30 minutes. Sites can be on arterial roads owned and maintained by TfL, borough roads, car parks and on private land, including Heathrow Airport and multiple Shell service stations. We are committed to installing at least 300 points by the end of 2020 and as of 14 May 2019, 178 rapid charge points have been delivered. This helps to support the growing number of Zero Emission Capable (ZEC) taxis and the wider take-up of electric vehicles.

At present, there are more than 1,544 ZEC taxis licensed in London. Of the 178 rapid charge points that have been installed, 72 are dedicated to taxi use. We continue to work closely with the taxi trade to identify the most favourable locations and are focusing on the central charging zone for taxi-dedicated sites following feedback from the taxi trade.

We are also developing the designs for two hub sites: one in Greenwich and another to be delivered by the City of London. The hubs will consist of a cluster of rapid charge points to support both taxi and public electric vehicle users.



On 8 April 2019, we successfully launched the world's first 24/7 Ultra Low Emission Zone (ULEZ) in central London

In addition, more than 1,000 residential on-street charges have been installed across London through the Office of Low Emission Vehicle-funded Go Ultra Low City Scheme.

The Mayor's Electric Vehicle Infrastructure Taskforce has been investigating the scale of infrastructure required towards 2025 in London, and how to tackle the barriers to implementing it. The taskforce is currently drafting a delivery plan to set this out. This will be published later in the summer.

Ultra Low Emission Zone

On 8 April 2019, we successfully launched the world's first 24/7 Ultra Low Emission Zone (ULEZ) in central London, and this is the centrepiece of a range of hard-hitting measures to tackle London's toxic air. The system enables the detection and

enforcement of non-compliant vehicles that enter the zone, with a daily charge incurred by those motorists using vehicles that do not comply. The charge is split into two levels. For non-compliant cars, vans and motorbikes a daily fee of £12.50 applies, and for lorries, buses and coaches it is set at £100 a day.

Prior to going live, we ran a major awareness campaign for more than nine months to help drivers and businesses prepare for the introduction of ULEZ, with our online vehicle checker used more than 3.2m times during this period. We also saw thousands of motorists changing their behaviour by driving less polluting vehicles in the zone, and using cleaner transport alternatives including walking or cycling and public transport ahead of launch.

We have made adjustments to our own operations with around 2,800 of our conventional diesel bus fleet and our door-to-door Dial-a-Ride vehicles brought up to tighter ultra-clean ULEZ standards in time for 8 April. Delivery of 90 new Dial-a-Ride minibuses with more advanced heating, cooling and braking systems, was completed a fortnight ahead of the deadline. These are now bringing more comfortable and safer journeys to the Capital's most vulnerable residents.

The ULEZ Expansion project is also being taken forward which involves enlarging the central London ULEZ up to the North and South Circular Roads. Following a public consultation, the Mayor announced the scheme on 8 June 2018 for delivery in October 2021. A feasibility study to understand the options for delivering the systems and services has now been completed. Key decisions on the delivery strategy will be presented to our Programmes and Investment Committee in May 2019.

Low Emission Bus Zones go live

We have put 10 of the proposed 12 zones in place, marking a significant reduction in harmful pollution and making streets healthier places in which to live, work and visit. On 24 April, we announced the addition of three zones in Lewisham, Stratford and Edmonton, which cover more than 1,330 buses across 79 bus routes. With the completion of these three new zones, we will reduce toxic air pollution for more than 40 schools,

nurseries and academies along the routes and surrounding roads. We will endeavour to accelerate the introduction of the final three by the end of 2019. Our wider non-Low Emission Bus Zone rollout is also on schedule to be complete by 2020 with three quarters of our 9,300 fleet already at this ultra-clean standard from 1 April. The remaining zones to launch at dates to be confirmed are:

- Edmonton to Seven Sisters
- Chiswick High Road to Kensington High Street
- Uxbridge Road to Shepherd's Bush

We continue to plan to make the bus fleet zero-tailpipe emission no later than 2037. Around 150 buses are currently zero emission and this number will climb to more than 200 by the second half of 2019, including the introduction of new electric double-deck vehicles on routes 43 and 134 which are currently being manufactured. As London's bus fleet is made up of two-thirds double-deck buses, this marks an important step forward towards our ultimate goal.

World first hydrogen double-deck buses

Hydrogen double-deck buses will be introduced in London and will be picking up passengers in the Capital from next year, producing no pollution from their exhausts. We have ordered 20 of these green buses as part of the drive to make London's transport zero emission. This is

essential in tackling the city's air quality crisis, which is linked to 9,000 premature deaths a year.

The buses will be manufactured by Wrightbus in Northern Ireland, creating new jobs in the region. The £12m project, which includes fuelling infrastructure and buses, is being supported with more than £5m of funding from European bodies and £1m from the Office of Low Emission Vehicles.

Acting as a catalyst for the take-up of this technology in other cities in Europe and the UK, we are leading procurement within the JIVE project, which aims to bring down the cost of these trailblazing vehicles. Buying in bulk with other authorities will help put the price per bus on a par with the other cleanest fuels.

As part of the Mayor's Transport Strategy, we are committed to using only the cleanest buses in our fleet.

Safer Junctions

In April 2017, the Safer Junctions list highlighted the 73 most dangerous junctions on our road network (defined as those with the highest vulnerable road user collision rates between 2013 and 2015). We have now completed work at 29 of these junctions with measures introduced to reduce road danger. We have carried out an initial review of the completed projects and have found there has been a 25 per cent collision reduction on average across all locations. We are

taking the remaining 46 schemes through design, with 14 of these scheduled to start construction by spring 2020.

DfT pothole fund

We have invested money from the Government and utility companies to tackle potholes and congestion, reducing road danger and improving journeys for thousands of people in the Capital. Recent funding from the DfT worth £2.7m has been used to make 22km of our roads safer for both cyclists and vehicles at 30 locations. We used data from our inspections to identify the locations which would most benefit from resurfacing, fixing any existing road defects and helping to prevent them occurring in future. Work to improve the road condition is now complete at each stretch of road making our network safer.

High Speed 2

Following High Speed 2's appointment of Mace/Dragados joint venture as its construction partner for Euston Station, we engaged in a series of contractor briefings in late March 2019. These sessions established relationships and developed the contractor's understanding about the scheme, and the impacts and requirements in respect of our assets, operations and customers. Subsequent to these briefings, on 31 March the Secretary of State delayed the formal notice to proceed on major construction works by six months to December 2019 to allow further work to take place to ensure the scheme is affordable. We continue

to work closely with High Speed 2 to understand the implications of any changes and ensure these are not to the detriment of us or our customers.

Rotherhithe to Canary Wharf crossing

This new river crossing for pedestrians and cyclists between Rotherhithe and Canary Wharf aims to relieve existing transport links, encourage more active travel and support growth in the Canada Water and Isle of Dogs Opportunity Areas. As part of our design development work, we are continuing to engage with a number of stakeholders. Feedback from this engagement will be used to help inform further development of our proposals in advance of any application for the powers to build and operate the new crossing.

Silvertown Tunnel

The Silvertown Tunnel scheme has been developed to address the issues of chronic congestion and poor reliability at the Blackwall Tunnel, as well as to provide a step change in cross-river bus services in south and east London. Integral to the scheme is the provision of user charging at both the Blackwall and Silvertown tunnels that ensures the new crossing does not increase the overall levels of traffic, while meeting the objectives of improving the environment, the economy and supporting good growth.

Following receipt of the bidder submissions for the contract to design, build, finance and maintain the new river crossing in February 2019, we now expect to confirm a preferred bidder in June 2019 and formally award the contract in the summer. This will allow construction to start later this year.

Old Street

Construction is progressing well to improve safety for pedestrians and cyclists at this busy junction at Old Street and to provide new entrances to Old Street Underground station. The enabling works on Cowper Street are scheduled to be complete in May 2019. Advanced works to remove the traffic islands on all four arms of the roundabout started in March 2019 and are also scheduled to be complete in May 2019. Main construction works will begin in late May 2019 for the new Cowper Street station entrance, following the first traffic switchover to close the south-east arm of the roundabout and change traffic to two-way operation over the May spring bank holiday weekend. The detailed design for the scheme, including creation of a large public space and new, improved pedestrian and cycling facilities, as well as new entrances to Old Street Underground station, is progressing in parallel with the early aspects of highway construction works. Construction is on track to be completed by autumn 2020.



Construction is progressing well to improve safety for pedestrians and cyclists at Old Street

Highbury

Construction is also progressing well for the major reconfiguration of the road network, including removal of the roundabout at Highbury Corner. All footway paving and kerbing works were substantially completed on 5 April 2019, followed by the resurfacing of the carriageway in mid-April 2019. The traffic switchover, which closed the west arm of the roundabout and changed traffic to two-way operation, was successfully implemented over the Easter weekend. Installation of the urban realm works is now under way and all highway works are on track to be completed by late summer 2019.

Vauxhall

The transformational changes planned at Vauxhall gyratory, to accommodate increased passenger demand associated with the Vauxhall, Nine Elms and

Battersea development, will make it safer for cyclists and pedestrians and improve the bus station. The successful delivery of the scheme is, however, subject to a number of complex consents and approvals. The revised plans for the Island Site (located in the middle of the gyratory) were approved by Lambeth Council Planning Committee in December 2018. The outcome of the Mayoral referral was the Greater London Authority (GLA) issuing a Stage 2 letter and report of no objection. A review by the Secretary of State is ongoing. This planning permission is the last external consent required and subject to that consent we will progress with a mini competition through our Civils Project Framework to appoint a design and build contractor. We are now finalising the concept design package ahead of tendering the detailed design and construction contract.

King's Cross

We are working to deliver improvements in the King's Cross and Euston Road area to enhance safety and improve connectivity for pedestrians and cyclists, while maintaining bus reliability.

Safety improvements for the Duke's Road and Churchway junction on Euston Road will be the first phase. The proposals include a green man pedestrian crossing across both Churchway and Duke's Road, and provision of safer north-south movements for cyclists. Further information on these plans has now been shared with local stakeholders. This will be followed by more design work with the aim to start delivery in December 2019. The sequencing and scope of other phases of work at King's Cross is being reviewed, taking into consideration the outputs from recent design workshops. The merits of each phase have been considered, with ranked scores generated through an assessment of relative value, cost/benefit and deliverability criteria. This information is now being shared with the boroughs of Camden and Islington to propose a way forward.

Lambeth Bridge north and south

The project team and Westminster City Council have agreed the approach to secure support for the design of the northern junction. This includes agreeing the safety benefits and mitigation measures required to address the issue of displaced traffic on adjacent residential roads. Construction is likely

to start in 2021. The concept design for the southern junction is ready to proceed to detailed design and has the support of Lambeth Council and Lambeth Palace. Work to clarify the amount of work needed on the bridge structure and for protective security measures is being carried out so detailed design can commence once the design solution is agreed with Westminster.

Wandsworth Gyratory

The purchase of properties from landowners on Putney Bridge Road continues to progress. The revised scheme layout in Armoury Way has been reviewed in light of the focus to reduce costs by ensuring all land take is essential. We are awaiting formal endorsement from Wandsworth Borough to officially adopt the revised layout. We plan to start work on site in 2021, at the end of the compulsory purchase process.

Fiveways

Design assurance is currently being carried out and a detailed design and build contract is being prepared for tender issue in August 2019. Following planning approval in December 2019, a compulsory purchase order approval request to the TfL Board is expected to be submitted in January 2020. Financial approval for the detailed design and delivery of the project is expected in March 2020, after which the compulsory purchase order and design and build contract will begin immediately.

Waterloo City Hub

The scheme provides a significant upgrade for the safety and comfort of pedestrians, cyclists and public transport users, with a new pedestrian walking route to the river, improved crossings, segregated cycling facilities and improved bus waiting and boarding. It also provides a better urban realm connecting public transport services with the Southbank area.

The proposed initial concept design has been updated following stakeholder review. We have updated the website and held successful public engagement events to inform the public on the latest design proposals which now address key concerns. Final approval of the concept design is being carried out and we are working with our supply chain to start the detailed design of the scheme. On 28 March 2019, the Lambeth Cabinet Member for Planning, Investment and New Homes approved a £2m funding contribution towards delivering these improvements. We continue to work closely with Lambeth Council and developers in the area, to ensure a coordinated delivery that goes along with existing and future plans for Waterloo. We aim to start construction in spring 2020, subject to securing the necessary consents.

White Hart Lane, Haringey

We have completed the structural installation for the new station buildings on both sides of the railway, including the new platform canopies. The east and west lift shafts are complete, as is the back of house accommodation which is now ready for fit out. We have also installed two of the four new staircases that will serve the enhanced station.

The existing station building remains operational throughout our works to serve the local area and the new Tottenham Hotspur stadium. We are working closely with the stadium to coordinate event days.

Bus priority

We have completed six bus priority schemes on our road network so far this year, including Brixton Hill and Streatham High Road. Large scale works at West Parkside in Greenwich began in early January and were completed on 27 March 2019.

We have also delivered 127 traffic signal technology projects throughout London, including 'Call Cancel' and similar efficiency improvements.

We continue to work with the boroughs to progress delivery of more than 100 bus priority schemes on their road networks this financial year.

Healthy Streets traffic light timing review

Some 1,200 signal timing reviews have been programmed for this year to continue balancing the operation of the network to support people choosing to walk, cycle or travel by bus. The programme will focus on 700 sites, including:

- Areas of poor air quality
- Fifty locations nominated by Living Streets to improve conditions for pedestrians at signalised crossings
- Locations nominated by boroughs and those identified from our own customer enquiries to address local feedback

To accommodate the ongoing Hammersmith Bridge closure, we have also included signal regions surrounding the bridge. This year, a higher number of timing reviews is planned to help support the capital programme, as delivery of schemes ramps up through the year.

Safer, less disruptive techniques for roadworks

In March, both Sutton and East Surrey Water successfully completed a two-week auger bore drill (a no-dig technique) under the A23 Brighton Road (part of the TLRN) as part of their major new 450mm water main project. Initially, they had proposed a six-week programme of open cut main laying across all five lanes of the A23 Brighton Road, which was in close proximity to a major junction. We

pushed for a more innovative approach and after much negotiation they agreed to trial auger boring technology for this section of the route. This methodology was implemented successfully, saving six weeks of journey disruption and pollution. In addition, by using auger boring technology, the risk of a utility strike on a high pressure gas main was dramatically reduced, further improving safety for our customers.

Protests and events on our network

This period we have seen several large-scale sporting events take place attracting large numbers of participants and spectators. These included:

- The opening ceremony for the new Tottenham Hotspur stadium on 3 April with the first premiership match against Crystal Palace
- The London Landmarks, Big Half Marathons and the 39th London Marathon on 28 April
- The FA Cup Final at Wembley on 18 May

All these events were delivered by our Network Management Control Centre to keep the network moving and disruption to a minimum.

Many additional planned and unplanned demonstrations were managed across the network.



This was followed by Extinction Rebellion, protesting for action against climate change, with disruption for approximately two weeks from 12 April.

All of these activities were coordinated from our control centre.

Congestion Charging private hire vehicle exemption removal – judicial review

On 8 April, to align with the introduction of the ULEZ in central London, we removed the exemption for private hire vehicles from the Congestion Charging Zone. This change recognises the significant impact on congestion from private hire vehicles, which have seen a big increase in numbers since the Congestion Charge was first introduced.

A trade union representing private hire vehicle drivers, has brought a challenge by way of judicial review of the Mayor's decision to remove the private hire vehicle exemption from the Congestion Charge. A hearing took place on 4 April, at which applications for an injunction to stop the change being implemented and for permission to bring the judicial review were determined. The injunction application was refused. Permission for the alleged breach of the public sector equality duty was also refused. Permission to proceed with the claim alleging indirect discrimination and breach of human rights was granted. The judicial review hearing will take place on 9 and 10 July 2019.

Heathrow Airport judicial review

The High Court has refused the judicial review challenge, which was brought by the Mayor, the London Boroughs of Hammersmith & Fulham, Hillingdon, Richmond, Wandsworth, the Royal Borough of Windsor & Maidenhead and Greenpeace, against the designation by the Secretary of State for Transport of the Airports National Policy Statement (ANPS).

The ANPS provides the policy framework for a third runway at Heathrow. The challenge was based on the failure of the ANPS to adequately address a number of fundamental environmental and social issues that will arise from the development. TfL was an interested party. The claimants have decided to appeal the Court's decision on grounds which relate to the lawfulness of the Government's failure to properly assess the strategic environmental impacts of a third runway and to consider a less harmful alternative to it for the purposes of the Habitats Directive. If permission to appeal is granted, the appeal is expected to be heard before the end of 2019.

Demand responsive buses

We are exploring how such services could complement conventional public transport services and enable good growth – particularly in harder to service areas of outer London, in line with commitments in the transport strategy. The demand responsive services operate flexibly in response to local demand. They can change routing and scheduling depending on when and where passengers want to travel. They can be booked at the desired time of travel, primarily through an app, and provide real time updates to customers of vehicle arrival time, and guarantee a seat for confirmed bookings.

This trial follows a consultation and a competitive procurement process, by us. The vehicles used will be Euro VI compliant, in line with the ULEZ vehicle standards, and will be fully wheelchair accessible. Drivers of the service will be trained to the full standard of a London bus operator (holding a Category D Licence), and the London Bus Driver Professional Wage will apply. Freedom Passes and English National Concessionary Travel Scheme Passes will be accepted on this trial service. It will be evaluated throughout the trial and at its end.

Biodiversity net gain

In the Spring Statement, the Chancellor announced that the forthcoming Environment Bill will make it compulsory for developments to achieve an overall increase in biodiversity (biodiversity net gain). We are already developing an approach to this, to implement the net gain goals in the Mayor's Transport Strategy and the London Environment Strategy. Creating and enhancing green infrastructure to deliver net gain brings added amenity benefits and positive customer feedback, as well as improving resilience through flood prevention and tree shading.

Knowing whether we leave sites better for biodiversity than before development means we have to quantify it and track changes. To do this, we commissioned a baseline assessment of our operational networks' habitats and a toolkit for measuring whether project designs deliver a biodiversity net gain.

We are now progressing with plans to integrate biodiversity net gain across the business, including:

- Developing the evidence base to inform a biodiversity offsetting strategy
- Providing training to staff and contractors on net gain and the use of the project toolkit

Environmental requirements

We have reviewed, updated and consolidated a full set of Mayoral environmental goals and legal requirements across our organisation. All our schemes can now identify environmental risks and opportunities at an early stage and have plans in place to manage them, linking to issues such as carbon, resource and waste management and ecology. There are several projects, including Old Street roundabout, where this approach has successfully prevented up to 12 months delay and also saved an estimated £250k in costs on each project.

5 A good public transport experience

Elizabeth line

On 25 April 2019, Crossrail Limited announced a new plan to complete the outstanding works and bring the Elizabeth line into passenger service at the earliest possible date. This plan identifies a six-month delivery window with a midpoint at the end of 2020.

We are working with Crossrail Ltd, Network Rail and the Government to progress plans to take over services between Paddington main line station and Reading from the end of 2019.

Work continues on the fit-out and systems installation in the stations and tunnels, and Crossrail Ltd expects this work to be completed this year. Once complete, this will allow the new stations and rail infrastructure to be integrated with the rest of the railway.

Dynamic testing of the trains in the tunnels has continued with intensive work to further increase the reliability of the train software and enable trains to operate across the three signalling systems. Trains have been operating at line speed (100 kph/62 mph) in the central section using the new automatic signalling system and close-headway multi-train testing.

New London Overground trains

The Gospel Oak to Barking line continues to operate at 30-minute intervals with three four-car electric trains. This is because the new Class 710 electric trains are not ready for passenger service and the last diesel trains being used on the line have now been released for use elsewhere in the country.

We are continuing to work with Arriva Rail London on driver training and as of 13 May, 60 of the 200 drivers who need to be trained have been through the course. This means customers will be seeing the new trains on the line, in test, during service hours. Bombardier Transportation has received partial Office of Rail and Road passenger service approval for the new electric trains and we continue to push them hard to finalise their work and bring the first train into passenger service as soon as possible.

We are continuing to keep customers informed of the travel options during this period via the TfL website and at stations. Station staff also have up-to-the-minute information and are able to help customers with journey planning.



A total of 845,000 tonnes of waste was removed by barge from the Northern line extension work which will be used to restore a site to arable land in Essex

London Underground Northern Line Extension

We are building a twin-tunnelled extension of the Northern line from Kennington to a new terminus at Battersea Power Station, via a new station at Nine Elms. The extension of the line is a catalyst for the regeneration of the Vauxhall Nine Elms Battersea Opportunity Area.

At Nine Elms station, work is progressing both below and above ground. We have finished laying track through the two platforms. Above ground, the station buildings now stand at full height and we are working on the roof. We are creating the internal walls and rooms in the station, and installing the modular cable management system in the basement service corridors.

At Battersea station, blockwork construction continues on the internal walls to form the rooms in the new station. We have also finished the blockwork walls in the crossover box. Following the removal of the last tower crane, installation of the pre-cast coffered panels, which form the ticket hall's signature architectural ceiling, is now complete.

The tower crane's removal has also enabled us to complete the construction of the Prospect Way structure, which spans the station box and supports the roadway to the west of the main entrance. The utilities for the station will be installed in the roadway. The jetty, which was used to remove excavation waste from the site by river barge, has been decommissioned. In all, 845,000 tonnes

of waste was taken by barge to Goshems Farm in Essex and used to restore a Victorian landfill to arable land. A total of 701 barge movements meant that 46,965 wagons were taken off the streets, saving more than 2,000 tonnes of CO₂.

At Kennington Park, the ground floor concrete slab and the columns for the head house are complete. At Kennington Green, the head house structure and parapets are also complete. Construction of the ground floor internal and external walls of the head house continues.

All running tracks have been installed in the tunnel sections across the extension, enabling more deliveries by engineering trains to be made, and the installation of conductor rail is under way. The final piece of track – the diamond crossing in the Battersea crossover box – is due to be installed by June.

The first of the extension's 16 tunnel ventilation fans has been successfully tested. The fan is 2.5m in diameter and will provide temperature and smoke control at Battersea station.

Modernising the Circle, District, Hammersmith & City and Metropolitan lines

We are installing a new digital signalling system on the Circle, District, Hammersmith & City and Metropolitan lines. The first section is now operating between Hammersmith and Latimer

Road, and trains are running in automatic mode on this branch.

The new signalling system will enable trains to run closer together on the four lines, meaning train frequency will increase in central London from 28 to 32 per hour when complete. It will also improve the reliability of these lines. The frequency increases will be introduced from 2021, with the project targeted for completion in 2023. This will lead to a capacity increase of a third on the four lines, equivalent to the space for an extra 36,500 customers during peak times.

This modernisation programme will eventually transform the oldest parts of the Tube network into one of the most modern railways in the world, providing better customer information and making journeys quicker and more comfortable.

Piccadilly line

We are entering the final stage of the interim Piccadilly line signal control upgrade, which is necessary to keep the line running until the current system can be replaced under the Deep Tube programme.

The project has created a new control centre at South Kensington and once the final stage is complete, this will control the Piccadilly line between Cockfosters in the east and Heathrow Terminal 5/ South Harrow in the west (including the

District line between Barons Court and Turnham Green/Ealing Broadway).

The upgrade to the system will also provide our customers with live information on train frequencies through displays on platforms and in ticket halls.

It remains imperative that we secure the funding to progress with a full upgrade of the Piccadilly line signalling system as soon as possible. We will be making the case to Government for this investment as part of the Spending Review later this year.

Bakerloo line upgrade and extension

Our 2018 Business Plan re-confirmed our commitment to extending and upgrading the Bakerloo line, to unlock much-needed new homes and jobs, improve connectivity, increase the capacity of the transport network and reduce journey times to key destinations. We have now taken the decision to bring the projects together as a single programme as we seek to deliver a fully modernised service from Harrow & Wealdstone to Lewisham and beyond.

A joint project team is now in place and is building on the extensive work already carried out by the Bakerloo Line Extension and Deep Tube Upgrade programmes, and learning lessons from other major projects such as the Northern Line Extension, Bank station upgrade and the Piccadilly line upgrade.

An internal assurance review of the joint programme will take place during the summer.

The project team continues to develop the scheme through to confirmation of a single preferred option, including updating the business case, confirming key infrastructure requirements along the route, investigating funding and financing options, and planning for further public consultation in the autumn.

We also continue to work closely with the London boroughs of Lewisham and Southwark as they develop their local plans to ensure that housing and employment requirements in both boroughs can be supported by the scheme.

Bank station

We are boosting capacity at Bank station by 40 per cent. This includes creating a new Northern line tunnel, platform and circulation spaces, a new entrance on Cannon Street, the introduction of step-free access to the Northern line, additional interchange between the DLR platforms, and two new moving walkways between the Central and Northern lines to reduce customer journey times.

The tunnelling works are progressing well, with the majority of the new infrastructure already tunnelled. In March, the first breakthrough between the new entrance on Cannon Street

and the newly constructed Northern line tunnel was made and is already making further construction work easier, helping to ensure the upgrade is delivered by 2022. This breakthrough section will eventually house a bank of three escalators serving the Northern line platforms and Central line moving walkway passage from the new entrance.

Tunnelling of the new lift shaft continues, delivering step-free access to the Northern line and improved step-free access to the DLR in 2022.

At the site of the new entrance, the project has excavated an area 30 metres deep to enable the construction of the new station entrance on to Cannon Street. The structure that will form the new station entrance is 80 per cent complete, with the first of three new escalator barrels in place.

Paddington

We have constructed a new step-free pedestrian walkway at Paddington to link the Bakerloo line platforms with the new Elizabeth line station.

Two new escalators and a new lift have also been installed. On 30 November 2018, the project completed testing and commissioning works, which enabled the Bakerloo line link tunnel to be ready for trial running/integration with the Elizabeth line.

While these facilities will only be operational once the Elizabeth line is opened, planned completion of all works by our contractor Costain-Skanska Joint Venture is forecast for late spring/early summer 2019.

Victoria

At Victoria, we have built a new north ticket hall and 300 metres of subways, and have increased the size of the south ticket hall by 50 per cent. Step-free access to all platforms will meet the needs of the 83 million customers who use the station each year.

The new station was opened in stages. All passenger-facing facilities are now in use. We continue to refurbish the Duke of York pub, which was closed so jet grouting works for the tunnels could be carried out. The project has used a four-storey Portakabin as site offices, attached to the rear of Victoria Station House. These were dismantled and removed in a five-week period in February and March, with the breakout of the piles carried out in April. This will allow the area of Terminus Place to be returned to use after some remedial works have been completed.

The overall completion of the station, surrounding buildings and urban realm is planned for summer 2019.



Central London bus changes

We recently announced the outcome of the central London bus consultation on a proposed package of 33 changes undertaken in autumn 2018. This consultation was in response to falls in bus demand in parts of central London of around 12 per cent to make the network more efficient while continuing to support the city. Having reviewed responses, we dropped changes to four routes altogether and made improvements to the proposals for another four. We are planning on delivering the central London service change in two phases. The first phase will be delivered in June this year and the second phase delivered in October this year. Service changes to increase capacity in outer London is a continuous programme and changes will be

implemented throughout 2019. Additional funding from the Mayor also meant we started consultation on a proposed new route 335 between Kidbrooke and North Greenwich.

Priority seating

On 23 April we launched our Priority Seating Week to raise awareness of what customers can do to make travelling easier for everyone, particularly those who may be in need of a seat. We have created brand new designs for priority seats on the Jubilee line that feature six different messages, including 'please offer this seat' and 'someone may need this seat more'. These designs will be introduced across the whole Jubilee line over the coming months.

Priority Seating Week also marks the second year anniversary of the free Please offer me a seat badge and campaign. More than 44,000 badges have been issued and the scheme has been adopted by a number of transport networks in the UK and across the world including Greater Anglia trains and the New York Transport Authority.

Baby on board badge

On 29 April we announced a partnership with Mothercare and BABYZEN, the innovative brand behind the YOYO+ stroller, as the new sponsors of our Baby on board badge for the next three years.

This is a great collaboration that helps thousands of expectant mothers travel more comfortably on our network. The sponsorship deal will generate more than £100,000, which can be reinvested into improving London's public transport and is another great example of how we work in partnership with well-known brands.

Expectant mothers will now be able to collect their Baby on board badge at selected Mothercare outlets. In addition, the free badge can be ordered on our website, or by asking station staff.

Art on the Underground

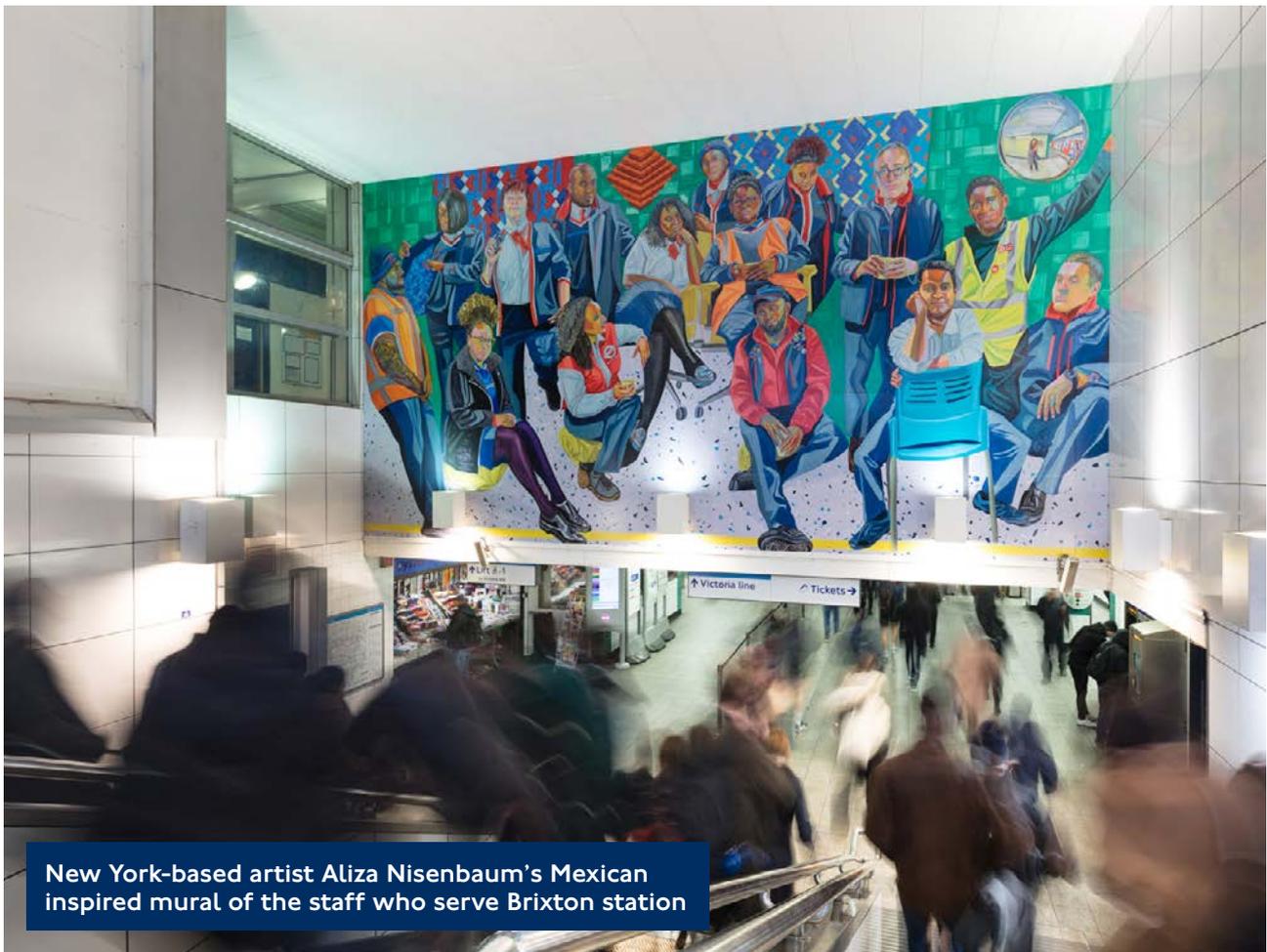
Art on the Underground has launched a large-scale public commission by Mexican-born and New York-based artist Aliza Nisenbaum. It will be on view at Brixton station until 16 September 2019.

The work is the first public UK commission by Nisenbaum, who has used the Brixton murals from the 1980s as inspiration. This commission is part of Art on the Underground's 2019 programme that asks how artists can play a role in developing ideas of togetherness and belonging.

Influenced by the Mexican mural movement and its involvement with social history, Nisenbaum's work probes the politics of representation by bringing together often-marginalised or overlooked groups of people. Through an open call, Nisenbaum selected 15 people working on Brixton station and the Victoria line – including train drivers, customer service staff and cleaners – and painted each of them in her studio to create a large-scale group portrait for the entrance of Brixton Underground station.

Oyster refunds

We have updated our systems so that Oyster refunds are now available from all Oyster card readers, including on buses. Customers are automatically refunded when they have to pay additional costs if a station is closed for maintenance, or if their normal bus route is diverted or curtailed due to road closures. Some customers are also automatically refunded where they have been charged the maximum fare because they have accidentally forgotten to touch out.



Previously, these refunds were sent to the station where we anticipated that the customer would be most likely to collect them. From 27 March, we are now sending them out to all readers, including buses for the first time, which should increase the successful collection rate.

WiFi at North Greenwich bus station

The new free WiFi hotspot at North Greenwich bus station is part of our work to make customer journeys across London more convenient.

Access to free WiFi at the bus station will help customers plan onward journeys, check on the status of the network or simply get online.

This is part of broader work to improve services on the network to make travelling on public transport an even more attractive option for Londoners.

The North Greenwich area has grown and developed significantly in recent years, and now nearly 75,000 passengers use the bus station every day. This key transport hub – with eight bus routes, the Jubilee line and the Emirates Air Line – also supports the area as an entertainment destination.

6 New homes and jobs

Crossrail 2

Learning lessons from Crossrail, we have established a number of expert review groups to further improve our assurance process. These will scrutinise, challenge and verify the outputs of the design, cost and business case. In addition, an independent assurance panel, the overarching review group, will provide independent assurance to the Crossrail 2 sponsors and senior responsible owners concerning the planned and in-progress development of the project, the quality and rigour of outputs, and proposals for delivery of the scheme.

A final meeting of the Independent Affordability Review panel was held in late April. Mike Gerrard (the former managing director of Thames Tideway Tunnel) reconvened his panel to formally sign off its report which was submitted to Government at the end of last summer. Since then, the Crossrail 2 team has been refining the scheme and has carried out further investigative work in response to the recommendations that came out of the report.

The team continues to work closely with the DfT and Network Rail colleagues to refine the scheme as we prepare to submit our strategic outline business case to Government in the summer. Discussions on the plans to consult and update the 2015 safeguarding directions continue.

Affordable homes

Grainger announced as intended partner for Build to Rent

In April, we announced that we intend to appoint Grainger plc as our investment partner for our Build to Rent programme.

Through this programme, we will deliver more than 3,000 homes, with a minimum of 40 per cent affordable on all new planning consents. This means that we remain on track to start 10,000 homes by 2021 across our estate with 50 per cent affordable housing.

We have identified the first phase of sites at some of London's most well-connected locations, such as Canning Town in the east and Southall in the west.

Working with Grainger plc – the UK's largest listed residential landlord – we have a fantastic opportunity to deliver affordable, high-quality homes at pace, while also generating significant ongoing revenue to reinvest back into the transport network.

We and Grainger plc are committed to providing the best service for our future tenants – whether that's 24/7 staff, or tenancies of three years or more. We will also look to provide useful facilities for tenants, such as high-speed WiFi, shared work space, gyms and bike storage. We

look forward to working closely with boroughs and local communities to create places and neighbourhoods where people want to live in the sustainable locations of the future.

Holborn Central

In March it was announced that Aprirose, a real estate investment company, had bought the long leasehold for Holborn Central – a site above Holborn Tube station comprising 68,373 sq ft of offices and retail. The sale will provide a significant return as well as ongoing income to reinvest in the transport network.

Our investment strategy will continue to see us undertaking a small number of targeted disposals while we concentrate our own development activity on Build to Rent in outer London. This will generate ongoing revenue as well as enabling us to provide high levels of affordable housing.

Development partner selected for three Harrow car park sites

In April we announced Catalyst Housing Ltd as our preferred bidder to deliver around 450 homes, 100 per cent of which will be affordable, at three car park sites in Harrow. These sites, brought forward through the GLA's 'London Development Panel 2' (LDP2), will be at Canons Park, Rayners Lane and Stanmore underground stations.

Catalyst is a housing association and a member of the GI5 group, with more than 21,000 homes in London and the South East. It will start detailed design and consult with the local community before a planning application is submitted in 2019/20.

As well as providing new homes, the plans will also improve the public realm with new trees and enhanced pedestrian and cycling connectivity for the local community. Some commuter car parking may be retained at the three sites along with the new homes, subject to surveys.

We will also work with the London Borough of Harrow and local stakeholders to improve the step-free access at Stanmore station making journeys easier for thousands of passengers.

Bond Street topping out

A major milestone was reached in the construction of the over-site development at Hanover Square, on top of the new eastern entrance to the Elizabeth line's Bond Street station. On 4 April, Great Portland Estates plc and Mace marked the structure of the project reaching its highest point at nine storeys. Once the project is complete next year, it will provide 220,000 sq ft of high quality office, retail and residential accommodation centred round a new public courtyard.

Small sites

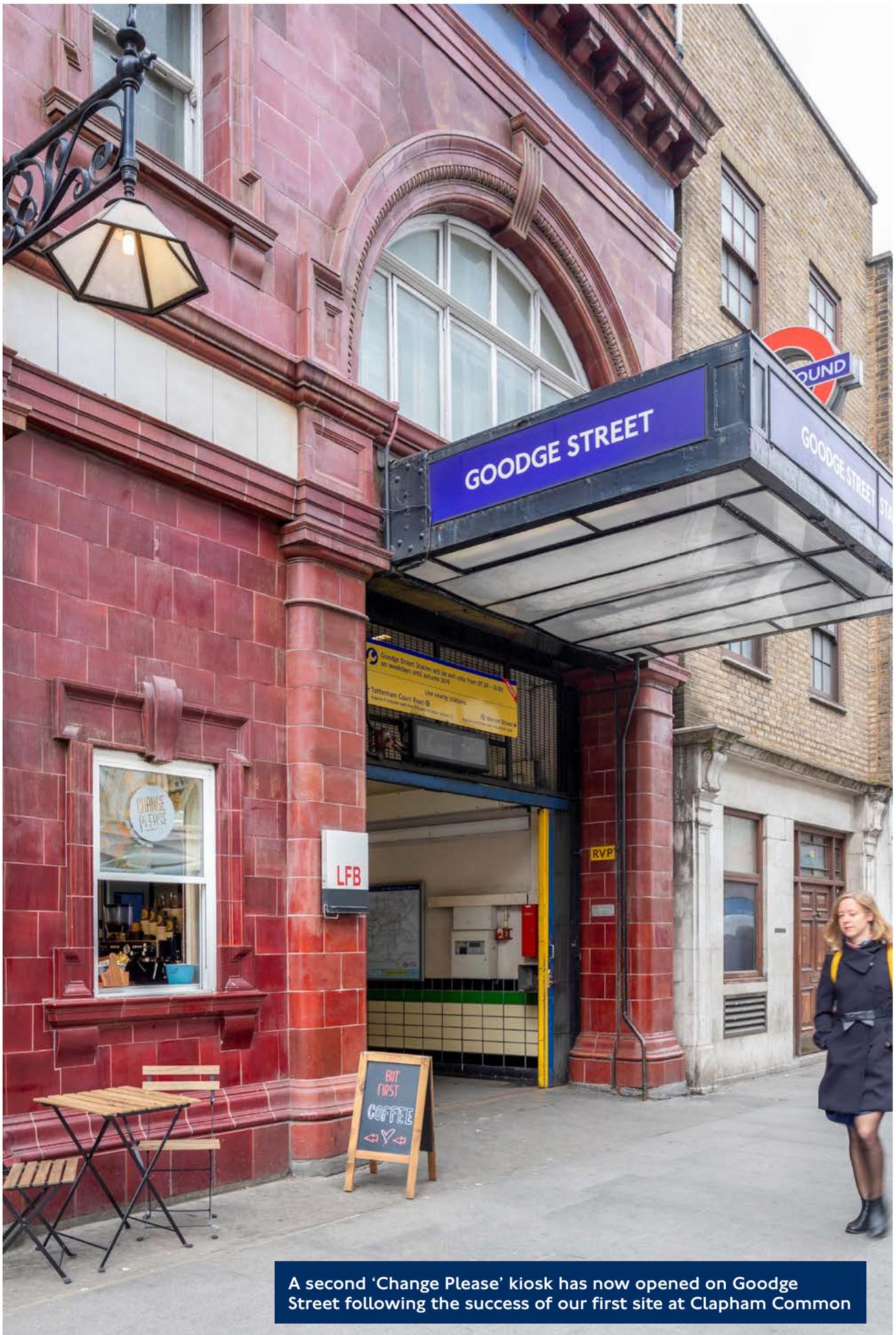
On 5 April, we launched a new group of small sites to deliver much-needed housing for the Capital, as part of the Mayor's 'Small Sites, Small Builders' programme. Through this, we make small plots of land more accessible to London's small and medium-sized builders via a simple bidding process with standardised legal contracts.

We brought forward eight sites which will each deliver between one and 30 homes, up to 90 in total, and are located in Richmond, Ealing, Newham, Bexley, Hounslow, Lambeth and Waltham Forest.

Ten other small TfL sites, located across seven different boroughs, were launched in February last year and there was significant interest, with 134 bids received from 80 organisations ranging from developers and community-led housing organisations to registered providers and architect-developers.

'Change Please' opens new kiosk at Goodge Street

We were proud to see the opening of the second 'Change Please' kiosk on the Tube network. The coffee kiosk - staffed by homeless people - launched in Goodge Street following the success of the organisation's first unit at Clapham Common, which opened last year. Founded in 2015, Change Please is a social enterprise which trains homeless people to become baristas and supports them into the workplace. This is a great example of a commercial partnership that, in collaboration with the Mayor and our dedicated public transport outreach team, is also helping rough sleepers to get back on track and build sustainable futures. We continue to work with Change Please to explore other potential opportunities on our network.



A second 'Change Please' kiosk has now opened on Godge Street following the success of our first site at Clapham Common

7 Our people

Change

Our programme across the organisation is changing the way we work in a number of areas, including reducing back and middle office costs over the next three years by 30 per cent while building our capability to raise revenue. This is critical to delivering our Business Plan and achieving a net operating surplus by 2022/23.

On the 26 March 2019, we launched formal consultation with Trade Unions on our next phase of organisational change. We are reviewing 1,400 roles across 10 business areas with an estimated recurring annual saving of £17.3m. Business areas affected include Customers and Communication, Compliance, Policing and On-Street Services, and a number of areas in London Underground including Network Delivery, Skills Development, Operational Upgrades and Asset Operations. We are also considering options for a number of further business areas ahead of potential consultation in May.

Smart working is supporting our drive to consolidate head office accommodation, by reducing demand for desks by 30 per cent. A detailed engagement programme is now under way to prepare and support staff. This includes training for senior managers, the roll out of an e-learning course and tech bars where experts are on hand to resolve technology issues.

Equality training

We have launched a series of three staff training courses focusing on equality including Equality impact assessment training, Disability equality training and Inclusive design.

Equality impact assessment training helps us to consider the likely impact of our work on customers and our people, and to identify ways to make improvements. It will support everyone in making more inclusive decisions by considering the impact of our choices when designing schemes, delivering projects and developing strategies.

Disability equality training is a one-day course split between classroom training and a guided tour on the transport network led by experts who have learned about disability through their own experiences. It provides staff with a better understanding of the needs and barriers faced by our disabled customers and what we can do to help deliver an inclusive transport network.

Inclusive design, in partnership with the Design Council, focuses on accommodating differences in the way our customers use the network and the areas around it. It is an e-learning course as well as a series of industry-led expert seminars covering topics such as better cities, inclusive practice and communication in the built environment.



On 30 April we launched our new Lambeth skills hub to help local residents access careers in construction

More than a thousand of our office-based staff will be trained and the courses will also be available to all London Underground frontline staff.

London Civil Engineering Awards

Yul Munoz has been shortlisted for Technician of the Year category in the Institution of Civil Engineers London Civil Engineering Awards 2019. Yul works in the Underground’s infrastructure protection team, ensuring third party works are delivered safely while protecting TfL infrastructure and operations.

The London Civil Engineering Awards celebrate outstanding civil engineering projects, innovation and ingenuity in London, and recognise emerging talent and the people behind the projects. This year’s awards mark 200 years of the institution.

Construction Skills

On 30 April we were joined by the new Leader of Lambeth Council, Jack Hopkins, launching our new Lambeth Skills Hub. The hub is being set up in partnership with Southwark Construction Skills Centre and Greenman Skills, and will help local residents access careers in construction. The event saw potential employers, referral partners and local residents attend to learn more about our plans.

We will soon be employing more than 7,000 people in construction on our development sites and are investing more than £2.5m in training hubs to help Londoners access training and employment opportunities.

On the day, we were joined by key construction employers who help to coordinate work experience and local job opportunities on developments within Lambeth. Through our skills programme we are actively targeting groups including women, people from BAME backgrounds and ex-offenders that are currently under-represented in the construction industry.

TfL Supplier Skills apprenticeship fair

On 7 March, we hosted this year's fair at Central Hall, Westminster, held as part of National Apprenticeship Week. More than 550 people interested in a career in transportation, engineering or construction were in attendance.

Our biggest yet, the fair showcased more than 500 jobs and apprenticeships and more than 1,500 training opportunities. Those on offer from TfL suppliers included engineering, track maintenance, customer service, construction and HR. Other areas from across the GLA were offered, including fire-fighting.

Showcasing good practice across the UK

Jennifer Melbourne represented us at the annual Traffex show, where road network management professionals come together to share best practice and innovation. Jenny spoke about our innovative work on Putney High Street to use traffic signals to reduce vehicle-related emissions. The technique developed by Jenny and her team in Network Performance

Delivery, which changes signal timings automatically to avoid emission peaks along this pedestrian-heavy high street, was also featured in the ITS (UK) annual review magazine.

Mental Health Awareness Week

During Mental Health Awareness Week (13-19 May) our Occupational Health and Wellment teams hosted drop-in sessions to raise awareness of the support available for those with mental health concerns. This year's theme focused on body image, with research suggesting one in three of us has felt stressed by our body image. Our Wellment team, which is part of our Staff Network Groups, ran lunchtime drop-in sessions to offer advice, support and information to employees and to raise awareness of the importance of mental health.

Pensions funding arrangement

On 22 March 2018, following approval by the Finance Committee and the Chief Finance Officer the documentation necessary to complete the 2018 Triennial Valuation with the Trustee of the TfL Pension Fund was completed. The arrangements include a revised schedule of contributions and recovery plan, as well as a new contingent funding arrangement which provides for TfL's contributions to the Scheme to change should this be required. The documents and associated Valuation report will be published shortly.

The TfL Supplier Skills apprenticeship fair, held on 7 March 2019, was attended by 550 people



8 Securing value and generating income

Sale and leaseback of Elizabeth line trains

We have completed a sale and leaseback deal for the Elizabeth line's Class 345 trains to 345 Rail Leasing, a consortium comprising Equitix Investment Management, NatWest and SMBC Leasing.

The 20-year deal will release around £1bn that we can reinvest in infrastructure across London's transport network. This will include a fleet of Piccadilly line trains, the first of which will appear in London from 2023.

We have an option to buy back the Elizabeth line fleet at the end of the initial lease term. The deal will have no impact on the operation or maintenance of the fleet, which stays with TfL and MTR Crossrail, who currently operate TfL Rail services.

The trains have been built by Bombardier Transportation, helping to support 760 UK jobs and 80 apprenticeships in Derby. Since June 2017, the trains have been gradually introduced on TfL Rail services between Liverpool Street and Shenfield, and between Paddington and Hayes & Harlington since May 2018.

Recover and reuse

This is the second anniversary of our initiative to make the disused York Road station a hub for recycling spare equipment. The equipment ranges from station lockers and booths to CCTV cameras and PA speakers, as well as materials left unused at the end of projects. Since the opening of the York Road hub we have reused more than £900k of Tube equipment. A further £900k in materials and assets is currently available at York Road, and we have identified another £500k in upcoming redundant equipment.

Benefits of the scheme have included helping prevent delays to the Mayor's step-free access programme by providing passenger help points when it was not possible to manufacture these in time because of Crossrail commitments.

A benefit that exceeded expectations has stemmed from recovering items of interest to the London Transport Museum shop. The sale of 2,500 'open door' buttons from the refurbishment of Jubilee line trains brought in £28k income. Another £31k has come from selling salvaged Metropolitan line luggage racks. In the past year, the shop's Decommissioned Originals line has generated £113k in revenue.

Landmark advertising

Bank has become the first station on the Underground to unveil new digital landmark advertising boards. The high spec screens on the head-wall above the escalators can be changed and updated in seconds. This is more efficient than using posters which require escalator closures and challenging installation procedures.

The screens are made up of LED tiles, supported by a metal frame, which connects all the tiles to provide Tube customers with a seamless advertising image. The landmark screens are in line with our aim to keep the Tube modern by providing digitally enhanced advertising space at our stations where advertisers are eager to promote their products, services and experiences. The full motion displays complement the work already well in hand on transforming our digital estate, with digital ribbons and panels on escalator sides, cross track projectors and more than 400 LCD digital screens.

We will be rolling out these premium digital gateways at six major locations: London Bridge, Waterloo, King's Cross, Liverpool Street, Charing Cross and Tottenham Court Road (Elizabeth line). They are the result of close collaboration with our partner, Exterion, and our suppliers, Telent. They will generate around £2.2m gross revenue annually.

Fares and revenue

To promote our services and raise revenue, we launched a new campaign in April 2019 to encourage more people to continue to travel on our network. This follows our recent campaign to promote off-peak travel, and informs customers about our lowest fares and other benefits such as Bus Hopper, daily capping and children travelling free on our network.

Advertising estate/Sponsorship

On 28 April, Customers passing through Canary Wharf will have heard Audible promote its Comedy Marathon podcast, featuring comedians Harry Enfield, Mark Watson, Felicity Ward, Adam Kay and Angela Barnes.

Our Partnerships and Sponsorship team continues its great work with more experiential campaigns that provide fun for our customers and provide vital revenue to reinvest in our transport network.

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May 2019