

The 'Reimagining Spaces' edition

Welcome to the spring 2019 edition of Momentum's Connect, where we focus on how good design can reimagine spaces for people

This spring we're proud to be Fringe partners of Clerkenwell Design Week. Clerkenwell is home to Momentum's London office, and to more creative businesses and architects per square mile than anywhere else in the world, making it truly one of the most important design hubs.

It may come as a surprise to hear a group of engineers and transport planners talk about the work they do as 'design'. But design, and specifically urban design, is an integral and essential part of everything we do.

Urban design focuses on the design of the physical features of the places where people live and work. Where architects focus on individual buildings, urban designers plan for the municipal services, streets and public spaces in between them.

Put simply it is about connecting people and spaces. We understand the challenges cities and towns face as urban places grow and become more dense. Led by thorough research and our analytic capabilities, our team provides insights and forensic studies that illustrate how both cities and citizens are increasingly becoming more interdependent. We understand that urban design is not just the study of complex spaces and how they are used, but also the challenge of how to interweave elements which make spaces desirable, and how this can add value to the communities we work in.

This Clerkenwell Design Week we'll be hosting tours of our local community and sharing our insights on how we use design to inform the strategies we recommend to our clients. Everything we do is by design. And in this special issue of Connect, we take a look at how analysis powers design; the role over-station developments are playing in how we perceive traditional and conventional methods of construction; and the new policies driving our design work. Our in-depth feature looks at how one of the main spaces in our Hatton Garden home could be re-imagined. Finally we hear from our team about what makes good design and the influences that direct their work and thinking.

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What's inside this spring edition of Connect



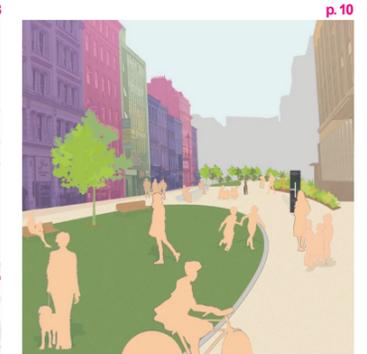
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What design means
to us at Momentum



Above: Hatton Garden littered with cars

Hatton Garden is London's jewellery quarter, centre of the UK diamond trade and home to a growing range of creative and media businesses. It is also Momentum's home. But despite a thriving and vibrant business environment, in many places the quality of the public realm is poor, and there are issues which make it hard for workers, visitors and residents to navigate and enjoy the area.

At that time, the overarching objective for our client - the Hatton Garden BID - was to see the area realise its potential as the 'Jewellery Quarter' - a world renowned business and visitor destination - by amplifying the assets and attractions of the area. To achieve this it recognised that enhancing the public realm of the area was vital.

We set out to develop a set of public realm principles across a range of topics relevant to local businesses, such as street lighting, public art, air quality, and pedestrian and vehicle movements; responding to existing user requirements and future, major changes - such as the arrival of Crossrail at Farringdon, the relocation of the Museum of London and the City of London's planned 'Culture Mile' between Farringdon and Moorgate.

The aim remains the same today. And as residents of Hatton Garden, and the wider Clerkenwell area, we decided to revisit our 2017 findings to coincide with Clerkenwell Design Week, and to produce a set of brand new visualisations which show how the main street - also named Hatton Garden - could be improved by good urban design.

We are keen stakeholders in the area: we work here, we walk and cycle through the streets and we shop and eat here. We also work with the Hatton Garden BID, which has the aim to support business growth and see Hatton Garden grow as a world-renowned business and visitor destination.

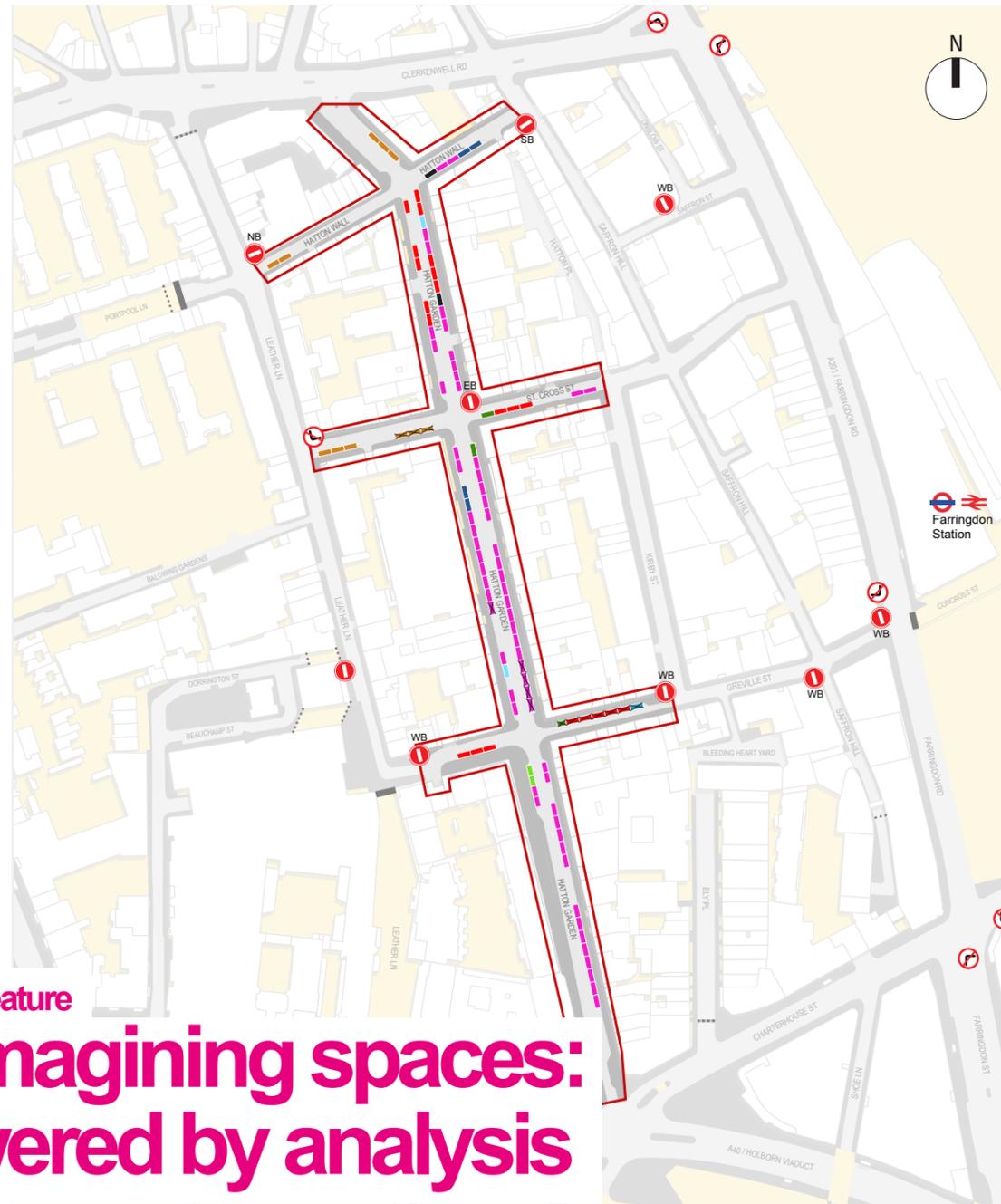
Back in 2017 we worked with Urben (www.urbenstudio.com) and Benedetti Architects (www.benedettiarchitects.com) to complete a research study and develop a framework for future public realm interventions in the Hatton Garden district.



Left: Cycle parking at capacity
 Right: Architectural gems within the Garden

In-depth feature

Reimagining spaces: Hatton Garden



In-depth feature

Reimagining spaces: Powered by analysis

National Rail		No Entry Sign		Loading		Trader	
Underground		Banned Turn Sign		Business		Suspended Bay	
Extent of Survey		Car Club		Paid For			
Bollards		Disabled (Blue Badge)		Resident Permit			
No Vehicle Access		Disabled (Blue Badge)		Solo Motorcycle			

Kerbside and Car parking analysis.
The above map showcases a review of the kerbside arrangement and parking demand of Hatton Garden we conducted to help provide an analytical basis for proposed public realm interventions (e.g. parklets).

Understanding the potential a space has and how it could be best used in the future is reliant on a solid foundation of data collection and analysis, alongside an in-depth understanding of the planning context.

The reimagining of any space starts by analysing the significant policies which will encourage, or sometimes impede, proposed change, such as those set out by the local borough (in Hatton Garden's case, the London Borough of Camden), the GLA and national government.

The process of collecting – and then analysing – data to inform recommendations can then get underway. At this stage, we seek to understand what doesn't work, and why, as well as the positives which can be built upon in order to propose a set of solutions that meet our clients' needs and budgets.

During our work with Hatton Garden BID we completed land use analysis, activity mapping, photographic assessment, pedestrian and vehicle movement studies and junction assessments to define our recommendations.

Pedestrian surveys

To show the volumes of pedestrians; areas which are busy or underused; how effective routes into and out of the area are; sight lines and pedestrian desire lines and how they are impacted by existing infrastructure; and how pedestrian navigation is aided by wayfinding signage.

Vehicle movement analysis

To understand existing vehicle movements and traffic management measures and controls.

Land use study

To ensure the current and future needs of business residents are understood and met.

Photographic assessment

To take a closer look at specific issues including cycle and motor vehicle parking, waste management, servicing, signage, street clutter, state of repair, parking and any undefined spaces.

Interview surveys

To ensure the views of businesses, residents and other key stakeholders are captured in the formulation of public realm improvement solutions.

What did our findings show?

Rat running

As the spine of a grid of north-south streets laid out in the 17th century, Hatton Garden acts as a through route. In particular our vehicle movement analysis showed that some motorists were likely using Hatton Garden as a 'rat run'. We firmly believe this doesn't need to be the case. Hatton Garden is surrounded by arterial routes which have a clear function: to move a large number of vehicles through the area as efficiently as possible.

Extended retail opportunities

The diversity of land use is a strength and it should be used to maximum advantage. Opportunities to extend the operating day and week should be explored.

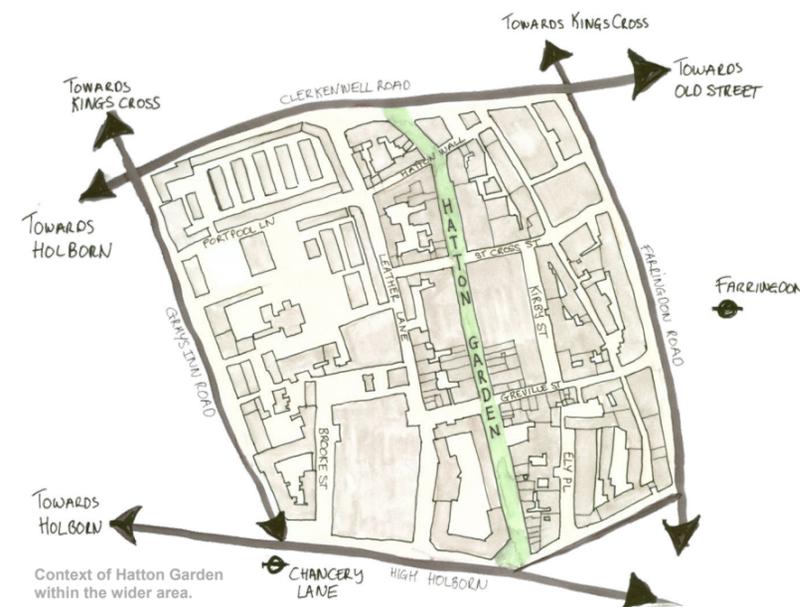
Pedestrians and cyclists are growing in number but there is still a disproportionate amount of space given over to motor vehicles. With the future arrival of Crossrail, pedestrian numbers are set to grow even more.

Passing through...

A significant number of cyclists were observed to use Hatton Garden southbound in the morning and northbound in the evening, suggesting it is a popular commuting route for cyclists. The total volume of traffic experienced along Hatton Garden is considered to be low throughout the day. With this in mind, alongside the potential misuse by rat running vehicles, there is definite scope to consider restricting some of the two-way traffic on the road.

Excessive on-street car parking, a lack of cycle parking and nowhere to sit and rest mean that Hatton Garden is a place you pass through, but do not spend time in. As the primary jewellery-retail road in the area, increasing dwell time here would clearly benefit businesses.

What is currently an unattractive, traffic-filled road has the potential to become a vibrant street filled with activity.



Backed by our analysis, our thoughts now turn to design: allowing us to make recommendations for short, medium and long-term interventions and, where possible, temporary trials or quick wins which can be a great way to trial recommendations before full implementation and help secure funding.

We also begin to visualise how the reimagined space could look, an exercise which helps our clients to picture the changes before they are made and which can also be used to engage with the local community.

Focusing on Hatton Garden, we set out to visualise the improvements which could be achieved if it were to evolve from being a through route to a destination in its own right.



In-house hand sketch render of parklet concept

In-depth feature

Reimagining spaces: Starting with a sketch

Recommendation 1 Evolve Hatton Garden from a through route to a destination in its own right

If Hatton Garden is to shake off its image as a through route, we believe that two lanes of traffic is unnecessary. Reducing the provision to one lane of traffic would lead to a number of benefits.

The dominance of motor traffic (which would instead use surrounding arterial routes) would be reduced whilst still providing the space for essential servicing and deliveries to take place.

Space would be freed up to increase footway widths and provide seating and trees – making a place where people can sit, walk and enjoy the area, and importantly stop to take a look at the retail offering.

Recent TfL research¹ shows that making walking and cycling improvements to an area can increase retail spend by up to 30%.

Recommendation 2 Decluttering the street

Decluttering may be a current buzzword but removing services which aren't required or are underused can free up space to make considerable improvements.

Parking is always a difficult and controversial issue. Our 2017 study showed that the levels of on-street parking cause both a physical and visual obstruction to people as they navigate the area, and prevent people from seeing one side of the street from the other.

By suspending car parking bays, parklets (which could include seating and planting) and dedicated cycle parking could be introduced into the area, making it part of the fabric of the street.

Waste management is a common issue in many parts of London and the solution for Hatton Garden will come from a combination of management recommendations and physical interventions. Alternative locations for waste storage and a consolidated approach to collection and storage would benefit Hatton Garden, as well as the wider area. A joined-up approach to waste collection procurement would also serve to reduce the number of large vehicle movements.

Our analysis showed that the area has a large number of people who cycle in and out, but demand is poorly catered for with the majority of cycle parking stands at, or above, capacity, and almost every lamppost in the area used as an informal parking spot. By placing cycle parking next to seating it's possible to increase the potential for informal conversations and social interactions.²



In-house artistic vector render of fully-pedestrianised concept

Recommendation 3 Creating the Garden

Hatton Garden may make greenery spring to mind, but the area is deeply lacking. As well as providing shade on hot days and shelter on rainy days (and thereby encouraging people to dwell in the space), trees are essential to clean the air of pollution.

Research also shows that including greenery within a space can have a positive impact on real estate and capital values.³

Quick wins could be achieved with temporary or short-term greening, or a longer-term project with permanent planters, trees and green walls which would help to create a space that people want to visit and spend time in.

STOP PRESS

We're happy to hear that Hatton Garden has been awarded money from TfL's Healthy Streets Fund for Business 2019 to reduce the number of freight vehicle movements by installing a waste consolidation centre and appointing a preferred supplier for collection.

Further information can be found via the TfL Press Release titled: *'Funding set to help businesses tackle congestion and poor air quality on London's high streets.'*

¹ <http://content.tfl.gov.uk/walking-cycling-economic-benefits-summary-pack.pdf>

² Jan Gehl - Life between buildings (1971)

³ http://depts.washington.edu/hhwb/Thm_Economics.html



In-house photo-montage render visualising a possible concept and recommendation for Hatton Garden

**Reimagining spaces:
Making Hatton Garden
the jewel in the crown
of Clerkenwell**

Article 1 Improving our neighbourhoods with local design interventions



Exmouth Market, London, ECR1

In November 2017 the Mayor of London and Transport for London (TfL) announced the winners of the first round of a £33 million funding programme called 'Liveable Neighbourhoods'.

The first round of locations included high streets and regional centres in all manner of areas across Greater London, including West Ealing, Greenwich town centre, Crouch End and Romford town centre, alongside several others.

But why?

The reasoning behind these funding programmes is that our regional high streets have long been neglected, being developed as spaces for people to pass through as quickly as possible to reach the next destination. Research undertaken by TfL has shown that visitors to neighbourhood shops spend an additional 40% on average per month than those driving vehicles. As a result TfL has chosen to use this as a tool to help make high streets more exciting and interesting places to spend time. The design premise behind the Liveable Neighbourhoods programme is surprisingly simple – build the infrastructure to promote walking and cycling as a primary means of reaching a high street and the retail units will flourish. The statistics on this don't lie – through pedestrian-focussed interventions Bromley experienced a 93% increase in walking which directly resulted in a 216% increase in activity on its high street.

Flourishing high streets

Why else do high streets flourish when walking and cycling is facilitated? People feel safer and more likely to walk at slower speeds. Air quality increases and those who suffer the most from poor air quality can enjoy high streets more. It's also part of a wider plan. The Mayor's ambitious goals to both increase the public transport, and walking and cycling mode shares from 64% to 80% - alongside incorporating 20 minutes of active travel for everybody per day - means that these forms of transport must be prioritised over driving where possible.

The second round

The second-round winners of the 2018/19 bidding process were recently announced in March 2019. This included a plethora of high streets and town centres as well as Shortlands in Bromley, Enfield town centre and the Atlantic Road in Brixton; but also, the City Cluster within the City of London. This shows the Mayor's and TfL's commitments to facilitating active travel within a variety of spaces. This year also saw an increase in funding commitment to £53 million, being a positive step for making these spaces much more welcoming and sustainable.

So what's happening right now?

The funding mechanisms are to support five-year projects, in order for the funded projects to be sustainably implemented and to take into account the needs of everybody who will use them. Presently the first-round winners will be undertaking extensive community engagement activities in order to promote the projects to residents and business operators. Subsequently it's envisaged that the design of each project will be determined through the thoughts and views of these stakeholders. We at Momentum are very much looking forward to seeing where each project will head next!

The design relationship between rail, stations and urban form is not a new consideration.

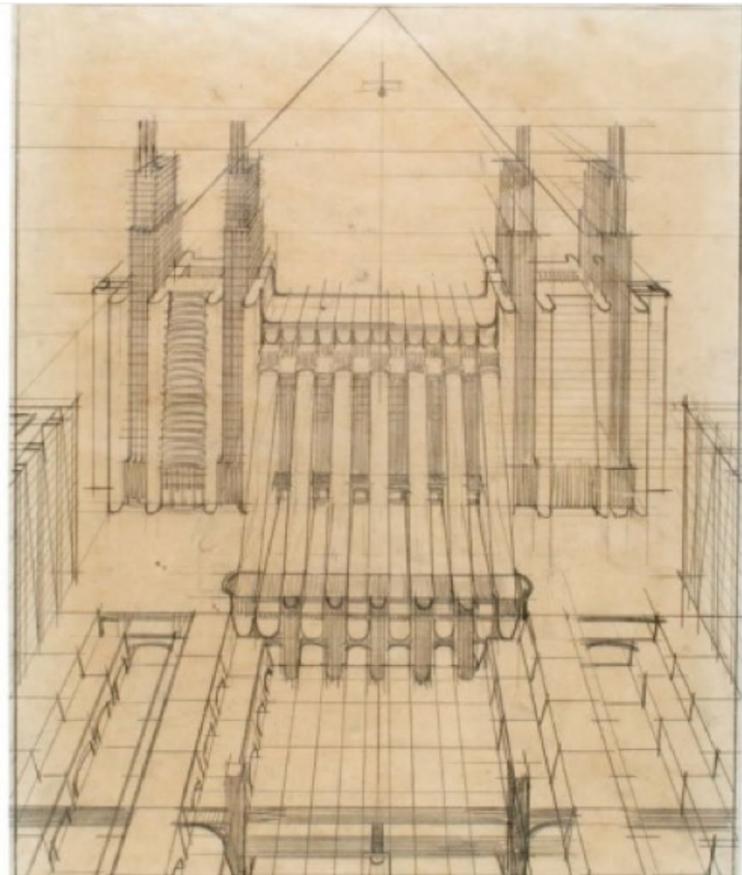
Metro-land was both a transport and real estate project; early transport hubs had carriageway roads at platform levels. The resemblance between the 1914 “Station for trains and planes with funiculars and elevators over three street levels” and some of the 2018 concepts for Uber “Skyports” is striking. The London to Greenwich railway was “constructed on arches, in such a manner that passengers and carriages may pass along the streets which the line will cross without being in any way obstructed”.

The constant increase in railway infrastructure, lines and the number of tracks nonetheless still creates issues of safety and severance (where communities are separated) which need to be addressed today. This is highlighted in the early proposals for an underground railway loop in Southwark (to be financed by the development rights on the land freed from railway viaducts) and in the “Light at the end of the tunnel” report from the Cross River Partnership in 2004, which anticipated the use of railway arches as currently pursued by Network Rail, TfL, local authorities, developers and BIDs.

Large-scale regeneration schemes across London, from King’s Cross to Old Oak Common are also playing a part in overcoming the issues of infrastructure severance.

Article 2.

Over station developments



Station for trains and planes with funiculars and elevators over three road levels by A. Sant’Elia (above, 1914) and the “Sky Tower” by Pickard Chilton and Arup for the Uber Elevate “Skyport” competition (below, 2019)



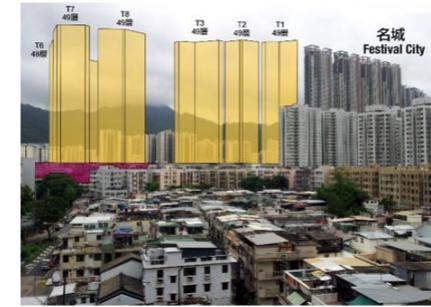
Development pressures and budget cuts are pushing TfL and Network Rail towards a rail and property model similar to Hong Kong’s Mass Transit Railway (MTR), with a focus on over- and near-rail development. According to the Ideas Above Your Station report (September 2017) by the Centre for London, this approach could deliver up to 15,000 homes in the next few years.

The challenges for the viability of over station developments (OSDs) are not to be underestimated: complex engineering solutions; demolition and the reconstruction of infrastructure (which generate high development costs); and the provision of affordable housing to name a few. These challenges may be offset by higher densities (although it is questionable how many London and UK locations could meet the levels of density that make the Hong Kong and Japanese models acceptable) and by extending the regeneration beyond the strict boundaries of the station and railway land through the addition of “easier” plots to develop.

21 Moorfields Located almost entirely above the platforms of Moorgate underground station, Landsec’s redevelopment of 21 Moorfields demanded the most creative and collaborative design-team approach to solve its construction challenges. Momentum assisted world-renowned architects, WilkinsonEyre, with the creation of proposals for a high-quality, 16-storey commercial office scheme.

The lack of any below ground-level basement at 21 Moorfields means that all deliveries and servicing take place at ground-floor level, with publicly-accessible space provided above, connecting into the Barbican Highwalk.

Momentum devised a bespoke servicing strategy taking into account the demands of other nearby buildings and the Barbican’s 4,000 residents. The strategy ensured that the number of loading bays could accommodate the demands of the building users and that sufficient waste management facilities were provided. Momentum’s work enabled logistic-related disruption to be minimised so that street-level activity would be promoted, rather than hindered, by the new development.



Left, Tai Wai Station Development Concept (Hong Kong) Right, Shibuya Station OSD (Tokyo, Japan)

This is an important consideration for transport and connectivity. Decking over railways and associated infrastructure creates a new “artificial” ground level, which requires great care in developing attractive connections to existing communities; delivering footfall and activities to the new ground level whilst blending the new development into the existing urban fabric; and extending the benefits of regeneration to existing communities. At the same time, the presence of infrastructure makes it impossible to locate waste storage, service yard, cycle and car parking under buildings; facilities therefore need to be located at ground floor, as in the example of 21 Moorfields*.

The creation of completely new public space, however, could also allow experimentation with new forms of public realm: embedding technology such as sensors; Mobility as a Service (MaaS); collection points for e-commerce; a more engaging and experiential public realm to attract more customers to traditional retail in new ways, as well as supporting an ever-improving mix of established retailers, pop-up markets, events, artisans and makers. Truly an opportunity to design places for people that address the needs of the future city.





Ultra low emission zone (ULEZ) boundary point on Euston Road.

Much has happened in the world of transport since we took a look at upcoming policies and what they mean for our clients in our Autumn 2018 edition of Connect. With a focus on design in this edition, we take a look at three key pieces of policy and how they guide our design.

Central London's Ultra-Low Emission Zone

Arguably the most high-profile of these changes has been the introduction of the Ultra-Low Emission Zone (ULEZ) at the beginning of April. Covering the same area as the Congestion Charging Zone (CCZ), and due to be expanded in 2021, the aim of the ULEZ is to improve the quality of London's air. TfL has forecast that the ULEZ will impact on 20% of the most polluting vehicles in the centre of the capital. As our own Roy McGowan pointed out on ULEZ go-live day: "It's been said that if we had the same level of pollutants in our drinking water, that we currently have in our central London air, that the mains water supply would have to be condemned as not fit for human consumption," a striking fact and a reason why we warmly welcome the introduction of the ULEZ.

The ULEZ will feature heavily in the planning and design advice we give to our clients as we look at the opportunities and challenges of 'car free' development and minimising the number of trips new developments generate. For us, particular focus will be on developing innovative solutions to manage delivery and servicing requirements through measures such as consolidation, electric vehicles and cargo-bikes. This in turn can help to create more efficient and flexible back of house spaces, meaning greater activation of the ground floor and ultimately more space for people.

As Connect goes to press, we have also been reviewing the Centre for London's Road User Charging Study: "Green light: next generation road user charging for a healthier, more liveable London". Launched at the end of April, we're encouraged to see the many positive ideas being brought forward to replace "the growing patchwork of road charges with a fairer, simpler and smarter single digital platform".

Designing Healthy Streets

Since our last issue of Connect, we have also completed our first 'Healthy Streets' Transport Assessment (TA), which helps to ensure that planning applications demonstrate how developments support TfL's Healthy Streets approach, as well as its Vision Zero campaign.

As an initiative, Healthy Streets aims to enable Londoners to incorporate active travel (more walking, cycling and use of public transport) into their everyday lives. The new TAs differ significantly from those we have previously submitted to local authorities and TfL, with one major change being the requirement to assess a larger area around developments, specifically broadening the assessment to review an Active Travel Zone, which is a 20-minute cycle around the site. This will enable more holistic assessments and we're looking forward to working with our clients in the coming weeks to understand more about what the new TA will mean for them, the scope of the transport improvements they will be expected to make around their sites and how we can help them to navigate the changes.

Looking ahead

Looking further ahead we await the publication of the new London Plan, following its ongoing Examination in Public, which will comprise part of the statutory development plan for Greater London. We have been struck by how each iteration of the plan has increased the requirements on the number of cycle parking spaces required by developments (currently standing at one cycle parking space per 75sqm for office uses) and we're finding that cycle parking – and the facilities required alongside it, such as lockers and showers – is becoming more and more important to our clients in their spatial planning. Another key element of the draft new plan, which is already coming into force across many London boroughs, is how the impact of freight can be minimised. Our clients are increasingly asking us for advice on how to implement and use consolidation centres in order to reduce vehicle impacts. Whilst this has been a relatively longstanding requirement for buildings in the City of London, we're actively encouraging all our clients (as well as trialling a consolidation centre ourselves!) to consider the impact that a more sophisticated freight and consolidation strategy can have on saving and maximising space within their developments, as well as their own estates.

"Centre for London: Green light: next generation road user charging for a healthier, more liveable London."

Article 3.

Designing by policy



A classic response, but I'm a huge fan of Jan Gehl. As an architect he developed a very early understanding of the life that happens 'in between' buildings (at street level): those are spaces for people to enjoy, not cars! I admire not only his work but also his massive contribution to urbanism by his constant effort to share, publicise and educate all industry players in this idea.

Principal Consultant. Mailyis Pineau

Director. David Hart

A piece of design I'm most proud of is Victoria Street by Landsec's Nova development. Looking back on Google Streetview at the street in 2008, and then now, the improvement for pedestrians is stark – there's a much more appropriate allocation of space to pedestrians relative to vehicular traffic.



Feature What design means to us...



For me, good design is not necessarily loud or in your face, but thoughtful of how a building, road or area might be used by a wide variety of people and in different scenarios. Good urban design is becoming increasingly flexible, presenting opportunities for constantly evolving urban interventions like cafés, community gardens and outdoor entertainment which is really exciting.

Consultant. Ollie Bolderson



Echoing the fact that everyone will travel at some point, it's our role to reflect this in our designs. An example of this comes with the concept design work we delivered for junction improvements on Putney High Street to prioritise pedestrian linkages whilst retaining strategic traffic flow. Such design is a brilliant example of the coming together of function and form to help improve the street scene and provide a sense of place for the area.

Principal Consultant. Dave Murphy



Good design has to be timeless, sustainable, adaptable, inclusive, warm and welcoming. As planners and engineers, it's important design retains its central position in the work we do as we continue to help shape the future of how people move and choose to travel. Good design has the power to change behaviour and influence people to take more sustainable modes of travel.

Assistant Consultant. Katie Lamb



Good design to me is a place where I want to go and stay even if don't need to. In our work, it's important for us to design successful spaces as the associated benefits are both economical and social, with an eye on sustainability which ensures a focus towards enhancing desirability of the environment we work within.

Senior Consultant. Claudio Borsari



For me, the type of design I admire stems from A Levels where I learned about Bauhaus and the principle of 'form follows function'. I find this to be a great guiding principle in engineering design, just because there is a design standard which says a space should be designed in a certain way, doesn't mean that space will be used in that way – we have to be pragmatic and responsive to the user, and not simply be dogged followers of the rulebook.

Associate. Derek Griffiths

Design can be defined as the playful nature between a variety of elements that are carefully combined to solve the visible and invisible problems around us where the primary focus is to improve upon the present.



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Special thanks to... Scott Ohene-Nyako

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