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Managing Streets during Lockdown: Design Options

Friday 22nd May 2020

Fourth in our series on streets during the Coronavirus pandemic. This time we will look at the design options for temporary changes.

Please watch the video of this event, or look at the presenters' slides, alongside this note. There are many informative and inspiring visuals that say much more than the words below.

Speakers

Chris Williamson, Weston Williamson

Deborah Saunt, DSDHA

Sophie Thompson, LDA Design

Colin Davis, Public Realm

Magali Thomson, Public Practice

Ted Maxwell, Public Practice & Oxford City Council

Ryan Cooper, TfL

Korak VanTuyl, TfL

Design Principles for Covid-19 related street changes

The following design principles are derived from the talks and discussion at this event, plus further conversations with some of the speakers.

There are 4 primary tests Covid-19 related street changes:

1. Are we providing the travel facility needed, creating the space people need to safely get to work and shops?
    - Changes should be affordable, safe and be able to be put in place very quickly
    - Locations for changes should be prioritised in a clear and consistent manner

- Ensure changes do not disrupt other travel services, particularly buses and loading.
- Understand the place, use videos, observations, and local knowledge if available to inform designs
- Tune up, or down designs depending on the street type and how it will be used.
- Monitor how the space is used and adapt accordingly. Involve local people, Business Improvement Districts (BiDs) and businesses in this.

2. Are people using the facilities we are providing in the way we hope and expect?
    - Always understand and cater for desire lines
    - Unless necessary for safety reasons, do not hem people into spaces with barriers or provide confusing routes or spaces that seemingly lead nowhere.
    - Ensure people intuitively understand what space is for
    - Consider if extra pedestrian space is needed for ad hoc overtaking or passing off others, extra waiting space around take away shops etc, or to simply wider pavements along their length. Adapt designs and kit according to purpose
    - Changes in level, i.e. raised kerb, are a physical and at times psychological barrier. If the intent is for people to use a wider pavement as one, look to remove the level change
    - Do not restrict or create pinch points for cyclists so they are forced to choose between carriageway or pavement and then be stuck in the space they decided on.

3. Can immediate changes be easily and conveniently translated into semi -permanent and potentially permanent schemes?
    - Set up a simple test, monitoring and review system for any scheme. Agree benchmark objectives and performance requirements
    - Don't overspend to start, but look at apparatus that is robust enough to last for a lengthy testing period. Do not splash out on permanent solutions too soon.
    - Look to use modular and movable apparatus systems that can either be adapted for more permanent layouts, or be used elsewhere as required
    - Work with local people to support maintenance and management of the space
    - Look to reuse apparatus that might be in the area, maybe purchased by the local BiD
    - Look to repurpose and reposition existing apparatus such as bike stands or planters

4. Will changes enhance and enrich Covid-19 recovery by providing more than travel opportunities?
    - Consider the messages we receive from the appearance and usability of our public spaces and ensure schemes will support recovery priorities such as active healthy lifestyles, valuing local communities and facilities and care for others.
    - Keep in mind that the way we change our streets says a lot about our society and values, including our attitude to drivers. If changed streets encourage faster and easier driving this will not lead to the type of recovery we want.
    - Use the current adversity to support innovation and the producing of new products to suit current and future street design needs.
    - Use plants, trees, creativity and fun to bring joy and healing to people's lives.

Chris Williamson, Weston Williamson

With thoughts and careful planning we will be able to get people to work in a safe and convenient way without people having to drive. For example, by banning cars between 7-10.30 am in central London, having one-way systems onto and off the underground and trains, with some stations entry only, some exit only, pre booking travel times and physically changing our streets.

It is good that there have been so many changes to streets to help us get around safely. But the barriers used are off putting and some of the details, like tarmac ramps, look terrible and are impractical. This says something about our city, our country and our values. We should be doing this well, and show the way our city wants to go in the future.

Deborah Saunt, DSDHA

The barriers used to date are off putting. We are now seeing the beginning of moving away from plastic barriers, to see hope rising, humour and creativity in how we are responding in public places.

Deborah has been gathering a catalogue of temporary materials, both those used now and potential apparatus, that respond better than plastic barriers to human desire and placemaking. In particular in Auckland, instead of asking people to step down into a barriered off area of 'pavement' they have used temporary decking to raise the level of the that extra pavement space to demarcate it. Maybe suppliers will innovate and start to provide gratings, decking, greening solutions for these new pedestrian spaces?

We could usefully have a kit of parts that can be tuned up, or down, depending on where used. Deborah suggested using the Street Type matrix to catalogue approaches. For example, at the City Street level, use extra paviours to demarcate the widened pavement, while in a residential street paint and planters might be more appropriate.

Deborah's pre Covid-19research looked at balancing needs of pedestrians and cyclists in shared areas. She has used similar software to video and analyse how people are behaving in the new temporary pavement extensions. She found that signage and other kit, including slopes, can create obstructions. Large amounts of space are given over for pedestrians but it is not being used due to kerb and kit. Kit is getting in the way of people being able to benefit from the extra space.

Deborah also found that the cyclists were using the pavement as the barriers seemed to be confusing and constraining them. This causes more potential for crowding on the pavement.

Looking at the matrix of movement (9 street types), and designing to extremes, catering for the range of users of different needs is a good approach. It is useful to look at pedestrian and cyclist behaviour and cater for those who have most needs when designing temporary interventions.

As designers we should look for the conflicts first, what are the risks and uses of each different street. Look at behaviours, use video to check, and how do different users interact, don't assume how they will navigate and behave. Then design to manage out conflict.

Looking at case studies, based on observed behaviour, she found that the new pavement space is only used for overtaking, so would be better to swell out to allow for safe passing than be continuous. At

pinch points like under bridges, it would be better to cater for cyclists not make them choose which side of the barriers to be on. Also add green, it will help perceptions and attitudes going forward.

In a town centre, it is useful to notice where people use desire lines pre Covid-19. Expect many of these to remain or come back. People are pushing the new barriers out the way to use those desire lines in the example Deborah showed. The extra space was not being used other than for passing, with people moving off the old pavement only to pass or in natural gathering points for example around take-aways. So better to use large boulders or temporary seats to demarcate wider pavement and respect desire lines, and ensure treatment caters for the natural cluster points.

In another example, cycle stands set at 90% to pavement direction where causing an obstruction between the old and new pavement areas. By moving these out to mark the edge of the new pavement, perpendicular to its direction, the stands and bikes that use them would help protect the pavement users without causing obstruction.

Regarding paying for temporary to semi- permanent measures. Deborah suggested engaging with BIDs (Business Improvement Districts). It may be possible to move some apparatus they have already put in some areas to areas most in need now or invest in better kit.

There was a question as to whether to keep very temporary pretty horrid kit now, so little chance it will be used permanently, rather than spending more on semi-permanent interventions now. Deborah said money spent on monitoring and testing before investing heavily would be best. Waiting as long as possible before making permanent changes, but test creative, place enhancing options that give something back to people as this is part of what should be tested. Invest in designers looking at areas now, they can scavenge for kit and build local networks and partnerships to create semi-permanent solutions cheaply.

Out of adversity new ideas emerge – we are seeing tender shoots of innovation, and potential to change our city for the better, long term. Maybe we will see new products like raised grating or temporary decks to expand pavements

Sophie Thompson, LDA Design

Looking at examples from around the world, Sophie remarked on the relationship between what people are craving right now, and how public spaces can be adapted to provide this. For example, outside Florence, white squares have been painted on a black tarmac square showing how to keep apart. The approach was elegant and did not shout about illness or restrictions on movement. Other similar low-cost temporary options is white 'isolation circles' sprayed on the grass in a park – or mowing grass to show where ok to sit or walk, or modular dining systems placed across public spaces.

Sophie looked at how adaptable streets need to be and found that streets that were deigned to be flexible in the past are coping better now. There are types of modular adaptable furniture that respond to changing use – these approaches might be particularly useful at the moment, moving from temporary to semi-permanent solutions. One example was a tree nursery, with simple plank seats built into the sides of the tree containers. The trees where being gown for use elsewhere, but in the meantime, they provided greenery and seats for a public space.

Sophie asked - if we can build Nightingale Hospitals and 3D print PPE, can we not innovate so our streets can cope with lockdown relaxation too?

Modular and movable kit is particularly useful at the moment. This kind of product has been around for a while and could be better deployed at the moment. Simple blocks can be reconfigured and moved as the way we use streets changes over the next few months.

We should also look to create fun and make people smile. The role of public space to effect public thinking and mood should be kept in mind.

London has done really well, done great work and delivered so much more change than other places. However, it is now time to be more ambitious and deploy a strategic approach, planning and designing in the potential for incremental change that moves towards longer term solutions, including reassigning of space and junction changes, testing as we go. The best way of designing for different stages of street use is to observe and understand the place. However, some things stay the same, whether change is temporary or permanent, such as how to get to utilities, safety etc.

Colin Davis, Public Realm

Colin introduced new interdisciplinary research into humble courtesy crossings. They can be used where zebras and signals are not appropriate. There are lots of opportunities for innovative designs. Every crossing should be designed for a particular place. Use narrow crossings, central pedestrian stopping areas and crossings in line with desire lines to create better crossings for pedestrians. Refuges can mean pedestrians only have to wait for cars coming from one direction to stop before crossing. This is good.

There are 1000's of 1960's typical informal crossings with triangular refuge space across the country. If these are straightened out, giving cars space to stop in both directions, they would be greatly improved. The key message is that urban designers, traffic and highway engineers can work together to make our streets safer, more pleasant and interesting.

Do take part. Send your favourite crossing to Colin at PublicRealm.org/courtesy-crossings

Ryan Cooper & Korak Van Tuyl, TfL

Korak and Ryan explained what has TfL been doing as part of the Mayors Streetspace for London plan

They talked about how to repurpose lanes for pedestrians. On TfL roads (TLRN), which tend to have multiple lanes, they have been able to take out whole lanes to allocate for pedestrians. They tend to do this on one side of the road only, to ensure buses and loading catered for on the other side. They think about cyclists, ensuring they are not pinched into traffic by the barriers, and work out what to do with side roads.

In Brixton, they have put temporary infill over the repurposed lane, with drainage included. People are using all this space and writing supportive messages on the tarmac using chalk.

In some cases, they use traffic cylinders, rather than barriers, to provide access for parking and loading in the carriageway – using a floating bay.

It is important to consider how people use the space, if they take away too much carriageway space, will they impinge on vehicle movements. So sometimes have to move barriers further in than they wish for social distancing.

Traffic cylinders are used at crossings, artificially widening the crossing points without moving the infrastructure at the moment. Lots of changes have gone in overnight, but they hope to make some crossing widenings permanent at a later date.

It is important to look at where people might congregate and the relationship between the space created and the building entrances. In one case they decided to move the position of the widened pavement so it respected routes rather than where they thought people might want to congregate, outside a pub.

In some ways in London we are lucky that we have already removed lots of guardrail around staggered crossings – as they would create significant pinch points. TfL are also asking whether they could make staggered crossings straight across, reducing need to stop in the middle. But this might create more crowding on the pavements because of longer wait times. They are looking into options.

Regarding side streets, they are looking to move the barriers into the mouth of the side road or is this over thinking the issue and should they simply stop the barriers at the relocated entrance mouth?

Regarding cycling, TfL are looking at quick wins such as bus and cycle only lanes, medium term options such as two – way tracks and longer-term opportunities such as junction changes and stopping left turns over cycling space.

The changes TfL are doing at the moment represent new work, there is no guidance, although they are writing some. The first test, design principle, is to provide the facility for people to exist, get to work, shops etc safely.

It is important to have edge restraints on footways. TfL have used a particular bolt down product in Brixton that has worked well, but may not be widely available. As an alternative, bonded kerbs, steel edging or 4x2 timber edge was suggested. Some kind of accessible upstand is required so people with mobility impairments can access buses.

Drainage is a very important consideration. In the Brixton example the drainage works from gully to gully with good longitudinal fall and end gullies no additional drainage was need. But schemes are not always this easy, and sometimes piped channels are needed along the original kerb, also sometimes slot drains. To do these schemes you need to know levels, this might mean taking measurements or even guessing.

TfL will hopefully be providing guidance on kit soon, for example the difference between barriers, wands/cylinders or cones. There are some different approaches to signs, TfL using yellow and black signs for motorists, while DfT saying red and white signs.

TfL are also starting to think about Hostile Vehicle Mitigation. People might be stuck behind the barriers if someone attacks.

TfL are thinking about the pros and cons of pedestrian ability to cross streets. They understand that in places like Borough High Street people want to cross the road, it is a town centre, but are concerned that drivers might not notice people popping out from between the barriers.

Put red and white stipes on the outside of blue barriers to meet temporary traffic management requirements that they are visible at night.

TfL are looking to change the design of ramps, the gradient, turn space at top and bottom of the ramp, need for hand rails and drainage. They are looking at plateau at top of the ramp which can then be in line with kerb, direction of movement.

They are also looking at how to make kit understandable to all, as space meant for different purposes might look the same.

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