Successes & Challenges of Tactical Urbanism

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ABSTRACT

Over the past eighteen months, seemingly random 'tactical urbanism' installations have popped up throughout Auckland's centre. Led by the Auckland Design Office at Auckland Council, with support from Auckland Transport, the aim of these projects is to achieve positive change to the pedestrian environment quickly and cheaply. This 'people-first' style of working also allows for trialling new ideas and seeks to add colour, greenery, amenity and visual interest to the street while making them safer for all users particularly for people walking and cycling. Via tactical urbanism, the Auckland Design Office is now more responsive to public concerns and is able to act quickly to provide interim solutions to current issues such as high speed intersections, lack of public space, inadequate street crossings, lack of cycleway connections…

The Auckland Design Office has developed PlaceKit, a suite of colourful, modular furniture that can be produced quickly and inexpensively and used in a variety of ways.
Examples of projects to date include Shortland Street polka dots, Griffiths Community Gardens, St Paul Street parklets, Federal Street contra-flow cycle lane, Alfred Street PlaceKit, and Eastern Viaduct place-making.

Adopting this new style of working has not been without its challenges, which include internal resistance from engineers, resistance from stakeholders, nervousness over safety and queries about the legality of some of the trialled features. There have also been challenges post-implementation, particularly around maintenance.

Since the first installation, there has been a steady build-up of energy and excitement - public support is growing and a sense of pride is emerging that the Council is embarking on something new and intriguing. There is still work to do to ensure the tactical urbanism programme continues to grow and thrive in Auckland but as data starts to emerge that provides evidence of effectiveness and improved safety, our confidence is firmly grounded for now.

INTRODUCTION & BACKGROUND

Purpose and Structure of Paper

This paper examines the initial two years of the Auckland Design Office's tactical urbanism programme and draws on the evaluation of various projects installed as part of this programme to illustrate key successes and challenges in utilising such an approach to address pedestrian safety issues in the city centre. It highlights the learning process involved in implementing a new working technique and brings to light the advantages of this approach for Council and the pedestrian while signalling aspects of the process that require further development for projects to be more effective and efficient.

The paper is set out as follows:

- Introduction and Background
    - What is tactical urbanism and why is it a useful practice?
    - PARK(ing) Day
- Successes
    - Traffic calming and safer pedestrian crossing. Case study: Shortland Street
    - Interim traffic calming trials. Case study: Federal Street shared space
    - Creating connections and testing modal priorities
    - Case study: Federal Street walking & cycling improvements
    - Incremental street improvements and place-making
    - Case study: St Paul Street
    - When formal processes fail
    - Case study: Alfred Street

- Challenges
    - Introducing a new way of working and changing minds
    - Developing a toolkit / materials palette
    - Supplier availability and responsiveness
    - Regulatory requirements
    - Maintenance
- Conclusions and Recommendations

What is tactical urbanism and why is it a useful practice?

Tactical urbanism refers to temporary, low cost and usually community-led interventions that transform urban spaces in creative ways on a space-by-space or street-by-street basis. Tactical urbanism is about phased improvements to urban life. These small interventions challenge users to rethink how they see and use space, contributing to the larger goal of creating safe, liveable streets for people.

It is a tool that is gaining traction in both grass-roots and public service circles. In The Planner's Guide to Tactical Urbanism, Laura Pfeifer (2013) notes *"Small-scale, temporary projects allow planners to observe interventions on the ground and make adjustments before committing the time and resources needed to complete long-term projects"*

In the public sector, tactical urbanism can also be useful in achieving quick change on the ground, often bypassing many lengthy processes required for permanent change. In Tactical Urbanism: Short-term Action for Long-term Change, Mike Lydon and Anthony Garcia (2015) explain *"Tactical urbanism is a learned response to the slow and siloed conventional city building process... It's a way of putting best practices into, well, practice – and quickly!"*

Tactical urbanism projects as defined by Lydon and Garcia (2015) should feature the following five characteristics:

- A deliberate, phased approach to instigating change
- An offering of local ideas for planning challenges
- Short term commitment and realistic expectations
- Low risks, with a possibly high reward
- The development of social capital between citizens and the building of organizational capacity between public/private institutions, non-profit / NGOs and their constituents

The evaluation of projects is a critical component of the process which will provide an evidence base to support a long term design solution. The evaluation may include measures such as:

- Traffic speed and volume data
- Gehl-type Public Life Surveys – pedestrian counts before & after implementation
- Marketview data collection before & after implementation

PARK(ing) day:

One of the ways in which tactical urbanism has gained momentum is through the annual celebration of PARK(ing) Day which originated in San Francisco in 2005. PARK(ing) Day is a global event where citizens come together to temporarily transform parking spaces into public places.

"PARK(ing) Day has effectively re-valued the metered parking space as an important part of the commons – a site for generosity, cultural expression, socializing and play." (PARK(Ing)Day, viewed 25 October 2018, www.parkingday.org)

On PARK(ing) Day in 2015, Auckland Council tested the repurposing of two on-street carparks as a parklet – refer to Figure 1. The trial was in response to observations that the location was a pedestrian pinch-point preventing effective pedestrian flow along and into Lorne Street. Effective pedestrian flow through this area is important in realising the aspirations of the Auckland City Centre Masterplan 2012 i.e. to develop pedestrian-friendly laneway systems throughout the city that support business, economy and visitor experience.

Figure 1: PARK(ing) Day 2015

Figure 2: Semi-permanent parklet installed in 2016

Of 101 pieces of public feedback on the trial, 100 supported the notion of a more permanent re-purposing of the space. In addition, businesses directly adjacent to the space reported a 20% increase in turnover.

As a result of the trial, in 2016, Auckland Council installed a semi-permanent parklet that will inform the possibility of a permanent kerb build-out through usual project schedules – refer to Figure 2.

SUCCESSES

Traffic calming and safer pedestrian crossing
Case study: Shortland Street

In 2016, concerns were raised by the Waitemata Local Board and local retailers regarding traffic speeds and pedestrian safety on Shortland Street. Where the street intersects High Street and Jean Batten Place is a particularly busy pedestrian movement zone and a key part of the city's Laneway Circuit (refer to Figures 3 & 4) envisaged by the City Centre Masterplan as "*a coherent circuit that is fully revealed, enhanced and celebrated as a defining city centre experience*." A full raised table intersection is anticipated as the final design solution to pedestrian crossing in this area but budget was yet to be secured. The challenge was how to temporarily improve the connection across Shortland Street.

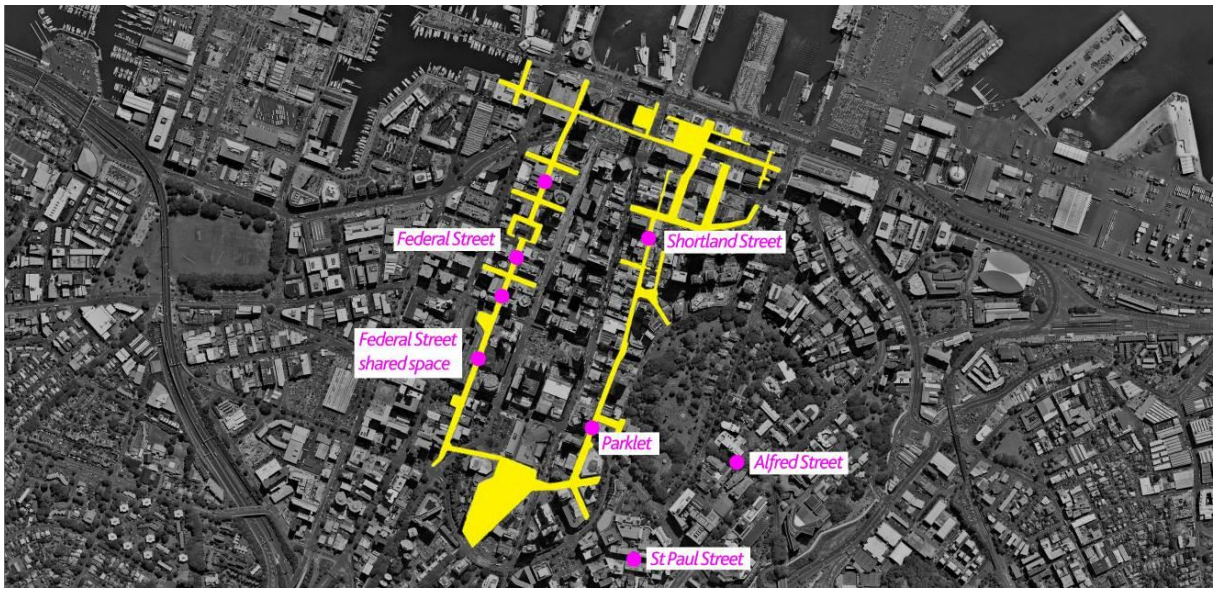


Figure 3: The Laneway Circuit & Project Locations

It was decided by the Auckland Design Office and Auckland Transport that an interim, quick and low cost approach would be trialled and through its evaluation and monitoring, a case for long term change would be built.

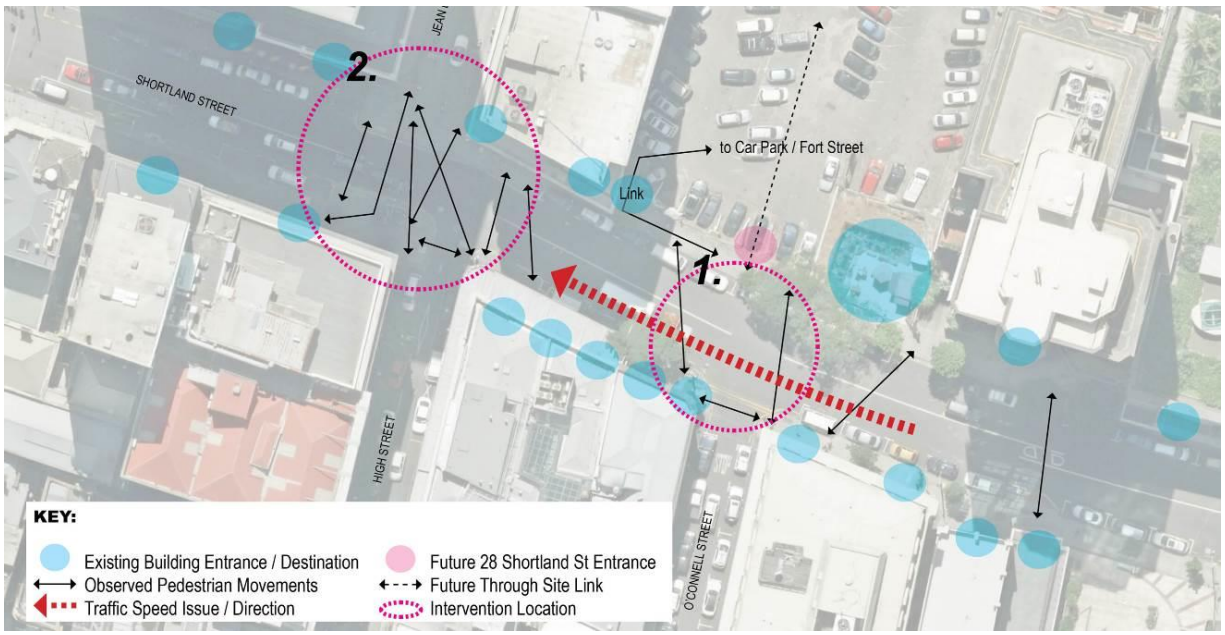


Figure 4: Site Analysis

Bold, colourful polka dots were installed in two zones – one at the High Street intersection and another on the approach to High Street intersection, at O'Connell Street as a two-stage intervention – refer to Figures 5 & 6. The decision followed a global tactical urbanism trend of painted intersections which introduce a non-conventional traffic calming method, indicating to all users, drivers, pedestrians and cyclists, to negotiate their way with care.

Figure 5: Shortland Street / High Street polka dots

Figure 6: Shortland Street / O'Connell Street polka dots

Traffic and Speed Data Counts were recorded prior and post installation of the polka dots in order to assess their effects on traffic behaviour. The tube was located on Shortland Street between High Street and O'Connell Street intersections and traffic data was recorded in both directions for a period of seven days per count. Results showed a 5.4% slowing of the 85th percentile speed from 33.2kph to 31.4kph.

A pedestrian survey and a video observational study (refer to Figures 7-9) were both conducted to determine general understanding of the installation and assess crossing behaviour. The results showed a level of confusion as to the purpose of the dots and uncertainty over who has right of way although the large majority of people still checked for oncoming traffic when crossing the street. The element of confusion serves to make people and drivers pause to consider the situation before proceeding carefully. From informal site observations over the last eighteen months, it has clearly become a much more considerate area, with many vehicles giving way to pedestrians.

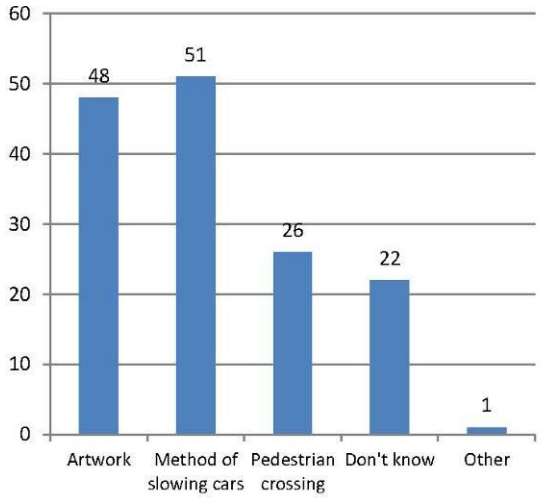


Figure 7: What are the dots?

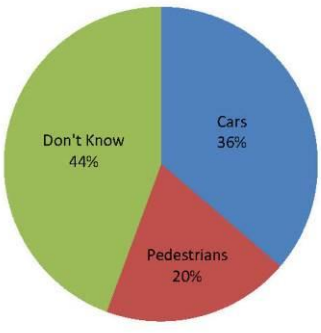


Figure 8 (left): Who has right of way?

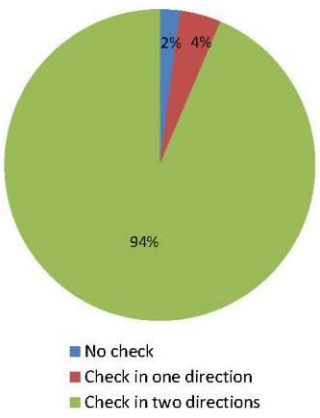


Figure 9 (right): Did pedestrians look both ways for traffic?

Eighteen months on, work is now underway to progress the polka dots at High Street to an interim zebra crossing to further reinforce pedestrian priority until funding for the raised table is secured.

Interim traffic calming trials
Case study: Federal Street shared space

The Auckland Design Office is currently working with Sky City and Auckland Transport to address traffic speed and behaviour on the Federal Street shared space, another key component of the Laneway Circuit.

Since 2011, Auckland Council has been developing a shared space programme which has transformed the city centre. The programme removes the traditional distinction between footpath and road (kerbs) so that vehicles and pedestrians can share a unified surface.

The Federal Street shared space, which was constructed in 2014, currently lacks activation at its southern end due to construction hoardings and two large car park entrances. The lack of pedestrian crossing activity at this end of the street encourages traffic to gather speed. Future plans for the street include activation of this section through new retail and car park entrance removal but an interim measure is required as in this case land use has not caught up with the shared space design.

The first stage of works was to place ten pohutukawa planter boxes along the street, narrowing the linear traffic route physically and visually. Unfortunately speed counts showed a negligible difference and so a further stage of the trial was explored and implemented.

The second stage of works built upon the first and installed various PlaceKit street furniture configurations across the street, creating pinch points and chicanes to slow speeds – refer to Figures 10 & 11. Initial feedback and observations on site suggest that this is much more effective; however, speed count data is yet to be received to confirm this.

Interestingly, there has been no incidence of the furniture being hit and damaged by vehicles, something we have observed at other installation sites, therefore suggesting that traffic is moving cautiously through the street.

An additional benefit of the furniture is its popularity with pedestrians using it as seating, more so than the permanent seating in the street.

Figure 10: Federal Street pinch point

Figure 11: Federal Street chicane and tree planters

Creating connections and testing modal priorities
Case study: Federal Street walking & cycling improvements

Further north on the Laneway Circuit, on a very car-dominated section of Federal Street, a tactical urbanist approach has provided an opportunity to:

- provide an interim cycling connection during CRL construction
- improve pedestrian crossing opportunities
- start to transition the street from being car dominated to more people friendly and place-focused
- trial the first contra-flow cycle lane in Auckland
- trial the PlaceKit street furniture in a live traffic environment
- pilot an innovative approach to community engagement based on 'consultation by trial'

Through a simple palette of materials – paint, planter boxes, armadillos and speed humps – the road was narrowed and a contra-flow separated cycleway was created – refer to Figure 12.In addition, crossing distances at intersections were shortened via painted 'kerb build outs' and the same polka dot pattern was applied to slow traffic. A zebra crossing with separate bike lane crossing was installed over Wyndham Street – refer to Figure 13.

Figure 12: Federal Street contraflow cycleway & graphics

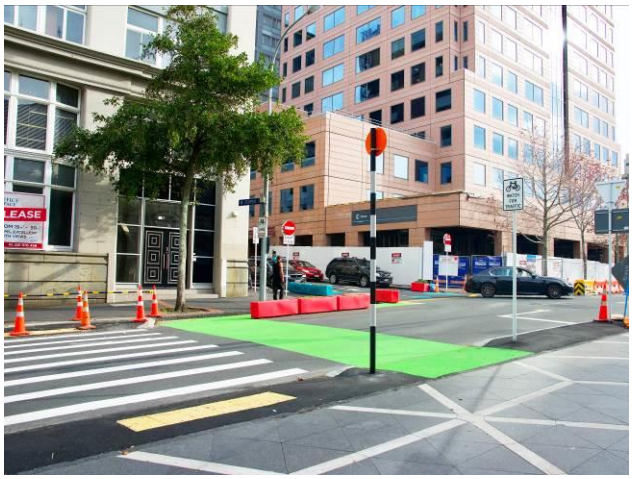
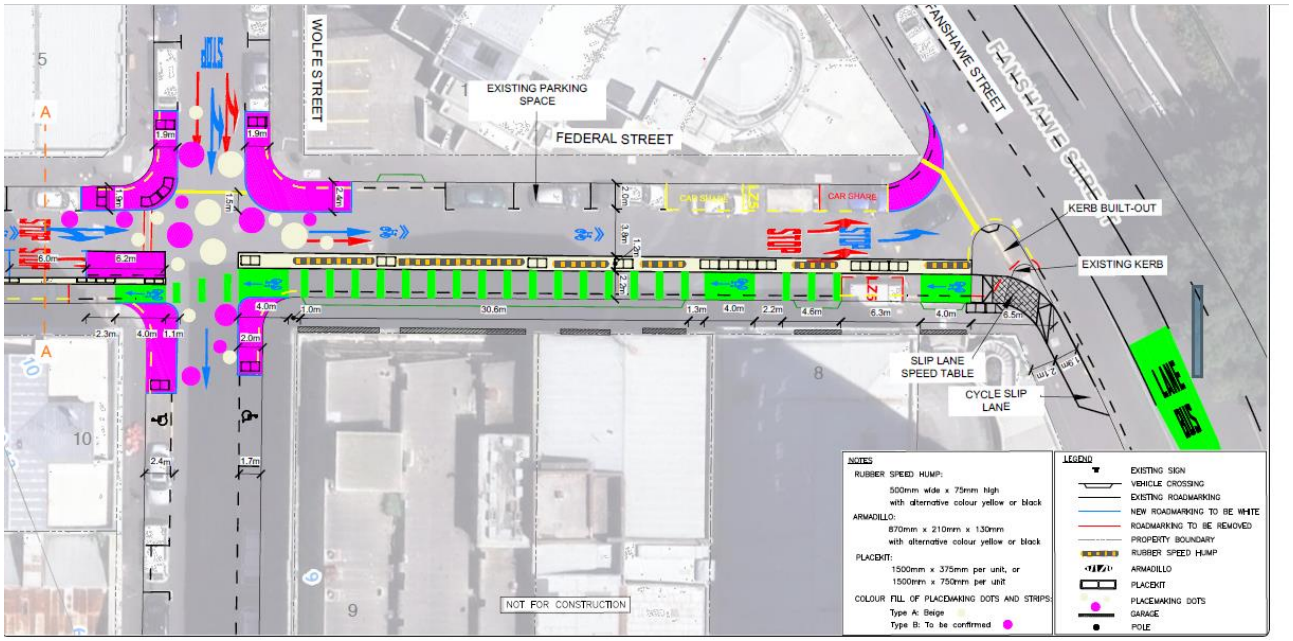


Figure 13: New separated crossing over Wyndham Street



As this was the first contra-flow cycling lane in Auckland and given the innovative approach a comprehensive evaluation was commissioned from Mackie Research.

Some key findings from the evaluation study:

- Daily cyclist counts near Kingston Street increased from 45 to 82
- Pedestrian volume outside 61 Federal Street has more than doubled since 2017
- A decrease in interactions with other road users by 32% suggests safer environment for people on bikes
- 85% percentile vehicle speeds on Federal Street and adjacent streets reduced by an average of 5.5 km/h
- Low vehicle speeds support a speed limit change to 30kmph
- There was a positive response to the street changes by all user groups in relation to safety, comfort, usability and aesthetic.

Recommendations from evaluation report stated:

"The contra-flow cycleway and temporary street improvements on Federal Street have improved connections through the city centre by providing an alternative north/ south route to Hobson, Albert, and Queen Streets. In addition, the street is safer, more attractive, and more usable. The research raised some issues regarding safety at specific points on the route, amenities, and maintenance. We suggest that these be considered and mitigated prior to permanent work being undertaken. Based on the overall positive findings, we recommend that the temporary nature of these street improvements be converted into a permanent upgrade. In addition, the further implementation of low-cost contra-flow cycling routes and other temporary treatments could positively contribute to the growing cycling network in Auckland." Mackie Research (2018)

MEASURE	METHOD	BASELINE DATA	FOLLOW-UP DATA
Traffic speed and volume on Federal Street and side roads	Vehicle tube counters	4x locations (1 on Federal, 1 Wyndham, 1 Swanson, 1 Wolfe)	5x locations (2 on Federal, 1 Wyndham, 1 Swanson, 1 Wolfe)
Cycle counts on Federal Street	Cycle tube counters	1 located on St Patrick's Square	1 on St Patrick's Square, 2 in Federal Street contra-flow cycle lanes
Analysis of crash data	Crash Analysis System	Examined five-year bicycle crash history on Federal Street	Examined five-year bicycle crash history on Federal Street
Road usability and road user interactions	Video analysis: movement categories and a interactions framework	One location (Level 2 Sky City employee carpark). 4 days during peak hours (morning and evening), total 11 hours	One location (streetlight next to Sky City carpark). 2 days during peak hours (morning and evening), total 11 hours
Attitudes of road safety, usability, and comfort	Survey	Convenience sample over three sessions of 46 pedestrians, 17 people on bikes, 29 business owners or employees	Convenience sample over four sessions of 50 pedestrians, 20 people on bikes, 23 business owners or employees
Expert route assessment for safety, usability, and comfort	Analyse ride from head cam video and Sensibel data	Four 'expert' rides: 2 at peak times, 2 off-peak; wore headcams	Eight 'expert' rides: all off-peak; Sensibel good/bad ratings at locations along route (annotated later)

The new approach to community engagement with 'consultation by trial' was a success and Auckland Transport is investigating how and when it could be used for future projects.

Incremental street improvements and place-making
Case study: St Paul Street

The Auckland Design Office collaborated with Auckland University of Technology (AUT) and Auckland Transport on an interim upgrade to St Paul Street. The street was dominated by car parking and provided little comfort space for students. The construction hoardings around the engineering building were producing a bottleneck for traffic and inciting some awkward turning manoeuvres.

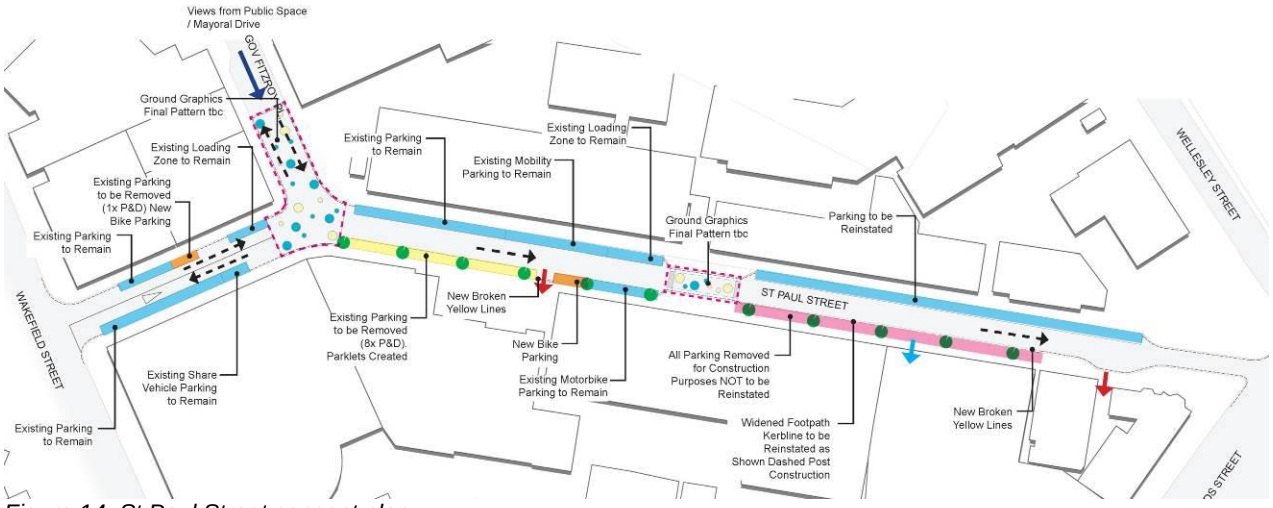


Figure 14: St Paul Street concept plan

The project sought to improve pedestrian movement through the street, facilitating better connections between key spaces, and provide pedestrian amenity around key buildings frontages including the new engineering building – refer to Figure 14.

The opportunity was then identified to permanently widen the footpath outside the new engineering building frontage. The area was still under construction and behind hoardings at the time and so, with a contract variation and car parking removal, the footpath was widened rather than reinstated upon building completion.

Following on from this success, further car parking was removed along the southern edge of the street (sunny side) and the space converted into parklets and populated with informal seating, planters and trees boxes upon a strip of artificial turf - refer to Figure 16. More bike parking was also installed.

Auckland Transport then extended the one-way designation to Governor Fitzroy Place which simplified the traffic movement and ended the turning manoeuvres. Polka dots were painted across the street at the two main crossing areas in colours that complemented the contextual buildings – refer to Figures 14 & 15.

The next layer of the project could see the lane (6m wide) reduced further and additional road space reallocated to active modes or place-making.

The project was collaborative in nature throughout the process and as a result AUT took on the responsibility of planting and maintaining the planter boxes. Regular post-installation contact has been maintained and a few minor adjustments to the set-out have been made in response to on-site observations.

Figure 15: St Paul Street polka dots

Figure 16: St Paul Street parklet

When formal processes fail
Case study: Alfred Street

Alfred Street was declared a Pedestrian Mall in 2007 to provide a pedestrian priority area whilst still allowing some service vehicles and bus services access. A streetscape plan was also prepared to support the legal change of use but funding was not secured. In 2010 an opportunity to leverage a maintenance project was missed and the street was replaced like for like with a 6m wide lane and indented parking bays. Over the subsequent years the number of vehicles driving through and parking on Alfred Street, despite being prohibited, increased to a point of saturation. The University of Auckland (UoA) was very unhappy and the parking team was struggling to enforce the space due to a legal technicality and the high level of resourcing required for ongoing monitoring. Auckland Transport is currently resolving the legal technicality but an interim tactical urbanist type solution was required to try to address the issue in the meantime.

In October 2017, Auckland Transport budget was approved for a tactical urbanism approach. The concept involved using PlaceKit furniture to narrow the lane to 3m wide and physically block of the areas where people where parking.

It took two months for the parking team to get sign off from senior management who then took it through UoA at a senior level. During the last week of November, the approval to go ahead came through and Auckland Transport approached Auckland Design Office for a concept plan which was turned around within a week.

All internal concerns were closed out by late January and the UoA Operations team agreed the layout and approach on 7 February – refer to Figure 17.

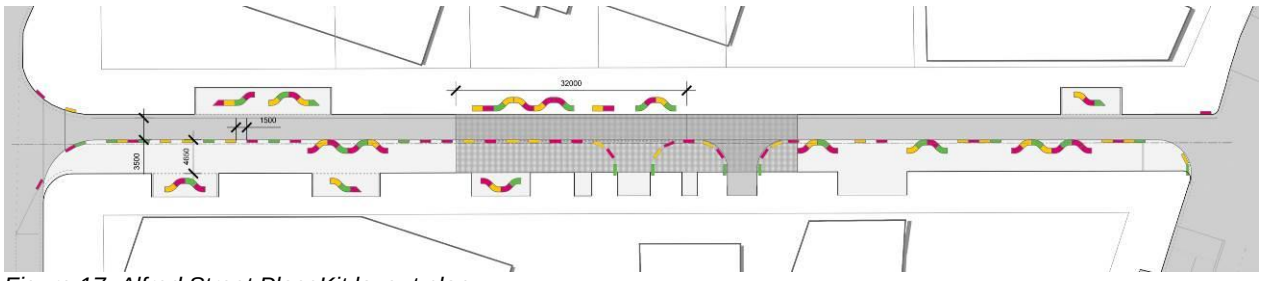


Figure 17: Alfred Street PlaceKit layout plan

PlaceKit was due to be installed in March in three stages as the kit became available. However, as another project (Federal Street) was due to be installed at the same time and took precedence causing delays to the last stage of the Alfred Street order. By 24 April, installation was complete and although in the end it took a month, this was only because of manufacturing delays - the whole

project could have been installed in one day.

The parking issue disappeared overnight and UoA confirmed that the character of the street had been transformed and it now felt much more like a space for people. Concerns from AT Metro that buses would be blocked by people stopping/parking in the narrow 3m wide lane did not materialise.

A few further meetings with UoA took place post-installation to agree on planting – Auckland Transport had agreed to fund this and the University had agreed to maintain the plants. Student representatives became involved and organised a planting morning to coincide with an eco event they had planned in August – refer to Figure 18. In involving the University of Auckland and the students themselves we have seen a strong ownership of outcomes, with the University taking ownership of maintenance and little if any vandalism.

In summary, from 2006 until 2017, very little happened on Alfred Street in terms of moving the space towards the desired outcome however once the tactical urbanism approach was adopted significant changes were able to be implemented in less than a year. In fact, once Auckland Transport gave internal approval to proceed the whole project could have been installed and completed within a month. The only elements that held up the process were the manufacturing delays which were out of the project team's control and the desire to involve the student community and to coordinate with their timelines.

The next steps will involve upgrading the Place-Kit planters to something more robust and hardwearing. In the meantime the project team are taking the opportunity to assess the longevity of the PlaceKit planters.

Figure 18: UoA students planting the PlaceKit units

Figure 19: PlaceKit narrowing the road and blocking parking

Figure 20: Before – street flooded with cars

Figure 21: After – colour and people

CHALLENGES

Introducing a new way of working and changing minds

The concept of tactical urbanism can be a difficult one to grasp for many people, both within the Council family and externally, who are used to the long sign-off processes and the high quality finishes of permanent projects.

Sky City for example was initially unsure of the look and feel of the PlaceKit units in the context of their upmarket restaurants and bars and on the granite finished shared space that they occupy. It is a cheaper approach and this is reflected in the type of products that can be used in the projects.

Auckland Design Office worked with Sky City and it was agreed to install a small configuration of units as a trial to test their look and feel and how pedestrians and businesses responded to them. Following the trial, their viewpoints had completely changed and they were eager to build upon the initial units and trial more ideas albeit using a different, more subdued colour scheme.

Many people struggle to see the point of a trial and ask why Council doesn't just go ahead and install the permanent solution straight away. Often the reason is due to budget being unavailable and the project can be explained as a temporary gap-filler until budget is released. Other times, such as the case with the Federal Street cycleway, it is because a permanent solution needs an evidence base to support a long term design solution.

As is the case with any change, people need time to adjust; they need to see for themselves the benefits of new methods. Initially people were persuaded through the promise of quick change and the assurance that the installation would be removed if it was not achieving desired outcomes for whatever reason.

In the end it is about gaining trust and enthusiasm. It is about building relationships through good communication and providing assurance that feedback will be listened to and most importantly that all of these projects are trials and they are temporary and the status quo can be easily restored if need be. So far, none of the Auckland Design Office tactical urbanism projects have been removed.

Developing a toolkit / materials palette

Upon deciding to embark on a tactical urbanism programme of work, Auckland Design Office developed a suite of modular street furniture called 'PlaceKit' which formed a crucial part of the tactical urbanism toolkit.

PlaceKit is a bespoke temporary place-shaping tool that enables agile, cost-effective solutions to a changing public realm; providing amenity, promoting legibility for the emerging Laneway Circuit, creating better linkages between spaces, enabling a stepped approach towards significant infrastructure development and activation at scale.

It is made up of five rotationally-moulded modules that can be interconnected and can be used in bench mode or flipped to become planters – refer to Figure 22.

Figure 22: PlaceKit concept drawing.

Procuring PlaceKit was a yearlong plus process from concept to fabrication. There were various delays in the process as it was a bespoke product and many of the prototype units failed to deliver on the essential qualities required especially its durability. The product, although intended as a temporary furniture unit, had to be tough, resilient and safe in the public realm. Furthermore, Auckland Transport had to be convinced that the furniture was safe and appropriate to use.

Now that the design issues are resolved and the factory logistics set up, the product is very quick to manufacture and deliver, however, the importance and the time consuming nature of this front-end piece of work, before any projects could even be considered, should not be under-estimated. Other materials have been trialled in situ such as the paint for the polka dots. Resin paint was initially used but following colour fading and longevity issues, a thermoplastic product is now being tested.

Supplier availability and responsiveness

Experience has shown that it is vital to have a trusted, local supplier who can respond quickly to issues on site. With installations being temporary in nature and with many projects requiring more cautious vehicle movement, there have been incidences of damage to or movement of PlaceKit furniture which have had to be corrected quickly.

Regulatory requirements

One of main stumbling blocks to the tactical urbanism programme has been the Traffic Management Plan (TMP) requirement. A TMP is a site-specific plan that covers the design, implementation, maintenance and removal of temporary traffic management (TTM) measures while work or activity is carried out in the road corridor (road, footpath or berm). TMPs are required for any activity that varies the normal operating conditions of any part of the road. The theory behind tactical urbanism is that it is a lighter, quicker and cheaper approach but once contractors are required to submit TMPs, the project process can become lengthy and expensive.

Auckland Design Office and Auckland Transport are currently investigating alternative means of traffic management for tactical urbanism projects without compromising contractor safety,

Maintenance

There are ongoing issues around maintenance of the projects. Council and Auckland Transport are receiving complaints over dirty, vandalised or damaged PlaceKit units. Damaged units can generally be replaced by the contracted supplier but not always as quickly as is necessary, especially where units are blocking cycle lanes or part of the road and are causing a danger to users.

Auckland Transport is taking responsibility for some projects but it is on a project by project agreement, there is no default position on new projects.

Where projects have been in collaboration with their stakeholders, i.e. the universities, they have in both cases offered to maintain plants and in some cases will water blast the units and in practice play a large role in the project maintenance but it is all very informal and based on good will.

Some stakeholders are starting to care for the units and plants outside their businesses as they see the maintenance issues are detrimental to their activities on the street – outdoor dining for example.

CONCLUSIONS AND RECOMMENDATIONS

In conclusion, Auckland Design Office and Auckland Transport have experienced many successes and challenges over the first two years of the tactical urbanism work programme. They have been able to implement projects and achieve change much quicker than through normal channels; they have been able to use temporary projects as trials to test new ideas and to learn from them while saving vast amounts of budget. They have developed their relationships with key stakeholders in the central city and continue to work in collaboration with each, continuing to make change for the better in the street and public realm. They have been able to use the results and feedback from tactical urbanism projects to inform future permanent solutions which can now be confidently built knowing that the design will function well, having been tried and tested in a less expensive format.

Of course in embarking on any new way of working there have been many challenges and it is recognised that there is still a lot of room for improvement. Further work needs to be done in developing an internal team that crosses the Council family and CCOs and covers off each of the main requirements of these project types – urban design, parking, traffic planning, cycling and maintenance. The process of gaining the required internal approvals needs to be streamlined further and a means of providing traffic management internally needs to be explored to cut costs and time so it really can be a lighter, quicker and cheaper approach. Maintenance issues need to be addressed and agreements worked out formally with Council teams.

In general though, there has been a very positive response internally across teams and externally from residents associations and the general public. Momentum and excitement have been steadily increasing over fact that Council is doing something new and exciting, something that is responsive to current issues in the city and importantly achieves change quickly, effectively, resulting in a safer city for all.

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