Appendix 4

Public domain project: Hunter Street

Revitalisation

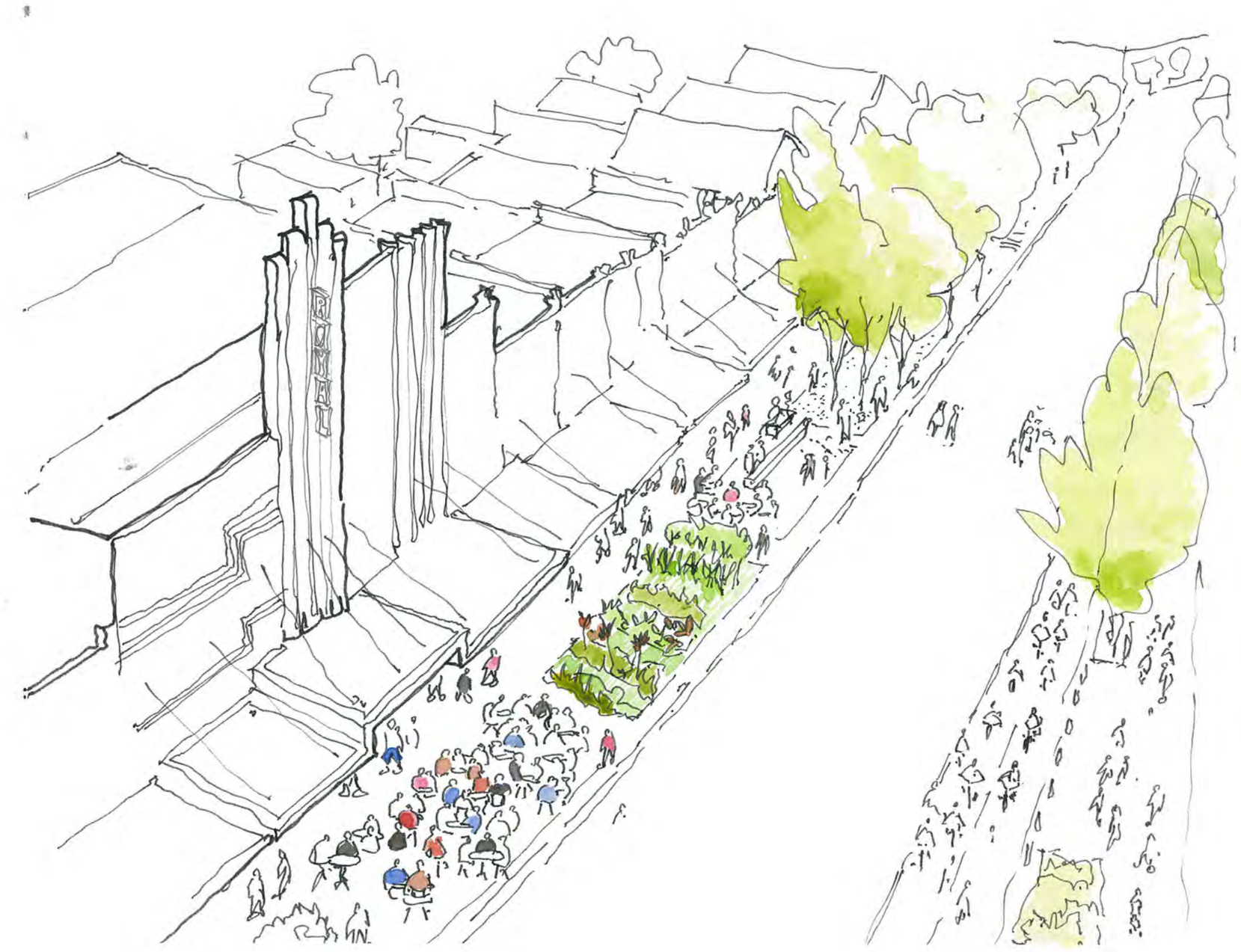
JMD Design 2012

This public domain project was used to inform the directions of the urban renewal strategy. It does not form part of the strategy and therefore feedback is neither required nor being sought on this document. It was prepared prior to the government's decision on transport services and was therefore written to enable the successful implementation of all possible transport arrangements.

Design Report

Hunter Street Revitalisation

May 2012 – Issue 2



Contents

Introduction

In mid 2011 JMDdesign were commissioned by the Centres and Urban Renewal Team of the NSW Department of Planning & Infrastructure to work closely with them to deliver urban design concepts for select projects that form part of the Hunter Street Public Domain Improvement project in Newcastle.

The areas for the project were carefully chosen to provide the greatest impact on the image of the city and become catalysts for the improvement to the quality of public domain and assist in the urban renewal of the Newcastle city centre.

The three Landscape and Urban Design projects will focus on developing a consistant design language for Newcastle public domain that can be implemented incrementally by council throughout the entire city centre over time.

The projects are:

1. Hunter Street, west end between Wood and Steel Streets including special area -Cottage Creek corridor
2. Hunter Street, Civic between Union and Darby Streets including special area Civic Station forecourt.
3. Hunter Street, Mall between Perkins and Pacific Streets.

The focus of the project is to create a new public image for Hunter Street and the new landscape and public domain design language for the city.

The project sought to take the substantial works prepared by the City of Newcastle as distilled in their Hunter Street Revitalisation Community Vision & Strategic Masterplan 2010 with the key themes for revitalisation being:

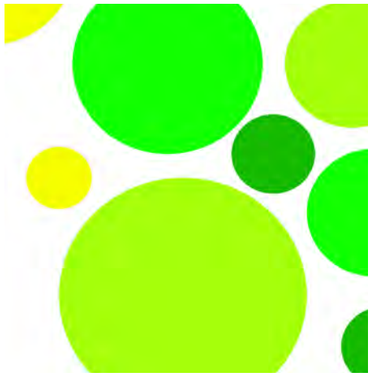
- Enterprise
- Integrated transport
- People and places
- Greenways

and expressed these as a set of creative concepts that would suggest solutions to the aims of promoting business activity, multi-modal approach to transport, place-making, and delivering environmental benefits.

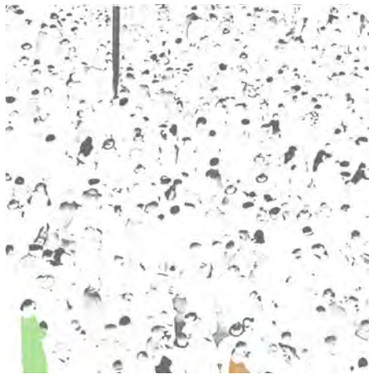
Part 1:
Think

1.1 Vision
1.2 Observations
1.3 Strategy
1.4 Projects
1.5 Short term & seasonal

1.1 Visions



Green



People

Read

By combining the information compiled by council to derive their four key themes with the analysis work prepared for this project, the four themes have been simplified to three vision ideas. These will be used to direct decision making and provide a basis for review of the concepts formulated.

GREEN the street

Maximise the trees, green areas, water sensitive urban design (WSUD) and sustainable initiatives for Hunter Street, seize the opportunities present along the streets, vacant blocks and public spaces.

- Amenity - Address the way people perceive the street and through that, the city. Enhance functionality and overall appearance of the public domain. Facilitate place-making.
- Sustainability – Create an open space network and enhance pedestrian linkages, encouraging alternative transport modes such as walking and cycling.
- Diversity - Create different types of open spaces that respond to different user needs.

PEOPLE the street

Strengthen pedestrian priority, maximise pedestrian use/comfort and connections to allow the street to be claimed by people rather than vehicles.

- Pedestrian Priority - Reverse the hierarchy by giving precedence to the pedestrian. Encourage public life, making decisions that primarily benefit people and not cars.
- Enterprise – Building on the foundations of existing business, creating verge spill outs to encourage outdoor usage.
- Diverse Activity – Create ‘program-in-design’ solutions that respond to a variety of users.

READ the street

It is important that a city be legible so that people easily understand the layout of a place and where they are at any particular time. By giving Hunter Street a spatial hierarchy and creating spaces that reinforce the “pulse”, the street tells the story of its context from the residential heartland to its foreshore heritage.

- Connect to the city – Build on the city’s spatial orientation, work with existing grain, highlighting where connections occur.
- Connect to the landscape – Reveal existing landscape elements within the urban grain of the city.
- Wayfinding and colour – Use prominent visual features as reference points for orientation. Use colour to accentuate landmarks and emphasise direction.

Amenity

Sustainability

Diversity

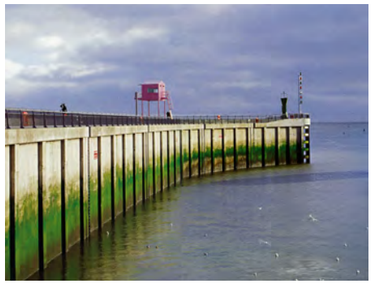
Pedestrian priority

Enterprise

Diverse activity

Connect to the city

Connect to the landscape



Wayfinding and colour

1.2 Observations

Extensive detailed analysis of Hunter Street has been prepared over the years. In reviewing this analysis and considering the site and its context with “a fresh set of eyes” several simple but influential observations presented themselves.

- Hunter Street is not straight. It is not uniform in width. It changes in geometry and the building stock flanking it is irregular in terms of character and intensity.
- Scale: The Newcastle landscape comprises of a mix of large scale industrial elements such as container ships and harbour markers which border the harbour and dominate the horizon line. Elevated to the south sits the dominant landmark of Christ Church Cathedral, contrasting with the fine grained building fabric.
- Existing green elements in the street are infrequent and there is little space for providing more green in the current street configuration due to the broad carriageway and building awnings.
- Use intensity: the activity levels along the street vary in density and frequency. Change also occurs from day to night.
- How to cross: The railway line severs pedestrian linkages to the north and connections to the harbour. The harbour foreshore offers a variety of public activity including, cafés restaurants, museums and public park land. Pedestrian access is challenging because crossings occur sparsely at irregular intervals and are difficult to identify for the infrequent visitor. Crossings that exist are circuitous and do not take into account major pedestrian linkages or desire lines.

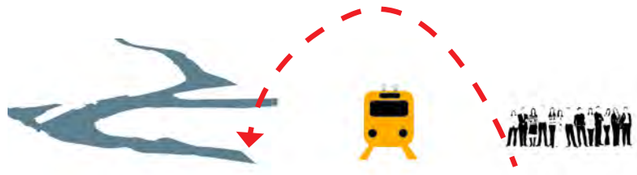
Hunter Street is segmented

The big and the small side by side

Use intensity

Existing green

How do we cross?



1.3 Strategy

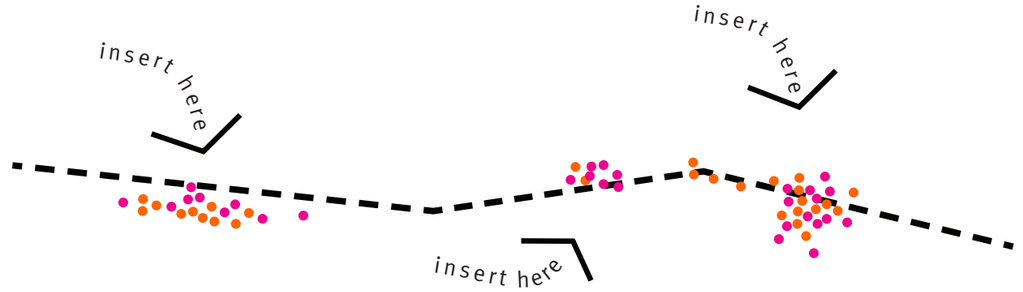
The aim of the project is to develop concepts that:

- deliver the greatest impact on the image of the city,
- are catalysts for the improvement of public domain quality, and
- assist in the urban renewal of the Newcastle town centre.

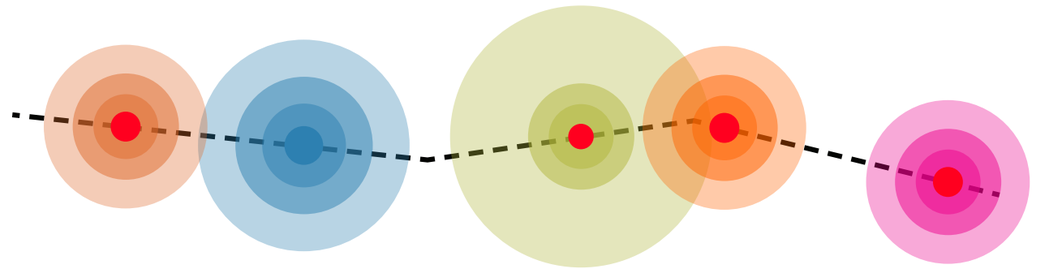
JMDdesign have formulated a series of strategies to achieve these aims that work with existing characteristics of Hunter Street. These are:

- Build on existing activity. Make additions to areas which currently have some positive level of activation to provide a spatial hierarchy, acknowledging that the street is too long to expect continuous or an even frequency and density of activity.
- Start small in the belief that a small initiative is a seed project that makes an immediate change to the culture of the street and serves as a catalyst for further transformation.The benefits are minimal disruption to the street and cost effectiveness. If the initiative is supported it can become the first stage of implementation.
- Short term insertions can be temporary or transitory, being achieved fast and removed just as quickly. These initiatives can act as catalysts or seed projects to try ideas and monitor their success. The benefits of this strategy are that the initiative can be low budget and it can be adjusted as it is temporary in nature, or removed if it is not supported.
- Change the culture by making strategic, but not necessarily costly, changes or insertions that support the vision and illustrate to the community how opportunities can be created by altering the fundamental make up of the street.

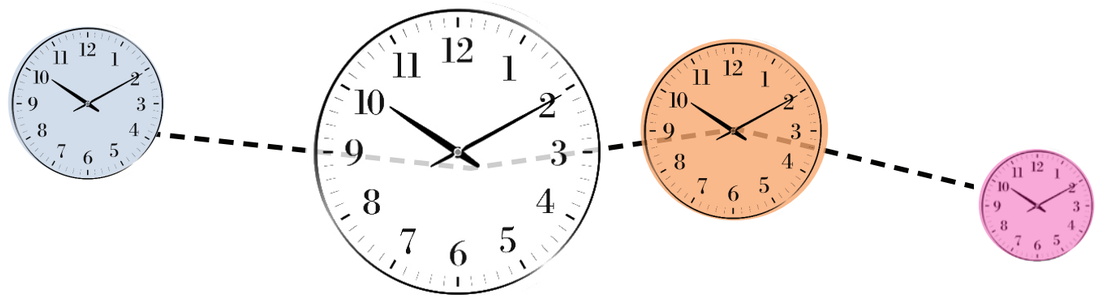
Build on existing activity



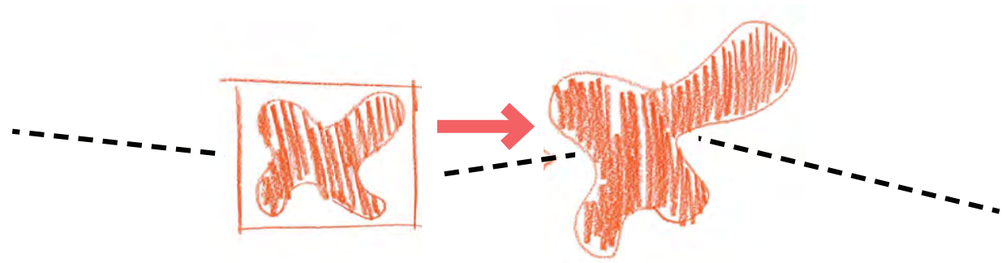
Start small



Short term



Change culture



1.4 Projects - Overview

By applying the visions and strategies outlined above to a detailed review of the street, a number of initiatives present themselves. The generous width of the carriageway offers an opportunity to realise the primary vision to People the Street. Decreasing the carriageway to add to the width of the footpath increases the amount of space available for pedestrians.

This fundamental change in the configuration of the street allows a number of projects to be explored.

- Something for everyone
- Vegetate
- Connect

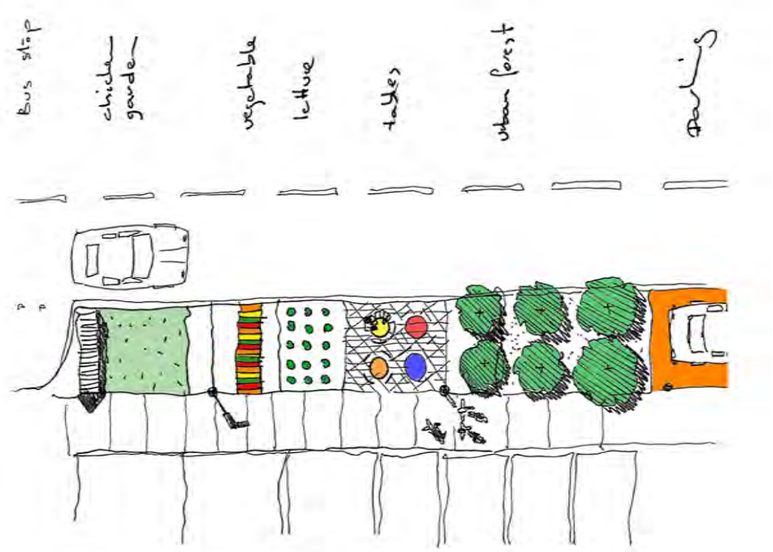
The increase in the width of the footpath allows the creation of a generous zone that can accommodate pedestrian circulation, access to shops and a multi-use zone

This multi-use zone could accommodate a range of activities that would aid in the activation of the street by encouraging activities within the buildings to spill out into the footpath.

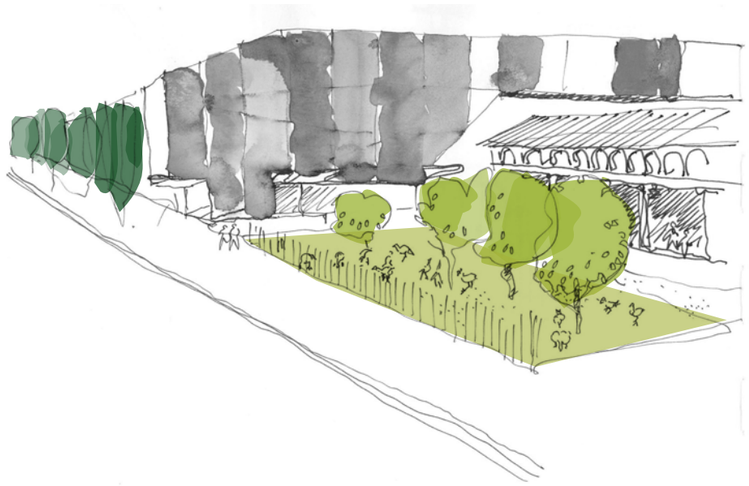
Green the Street presents the challenge to increase the vegetated component of the street. The green component could take a number of forms such as trees, grass, vines on pergolas, green walls, and/or bioretention.

Again, the widening of the footpath allows trees to be planted beyond the awning zone, providing space for initiatives such as community or private entreprise, productive gardens or grassed areas etc.

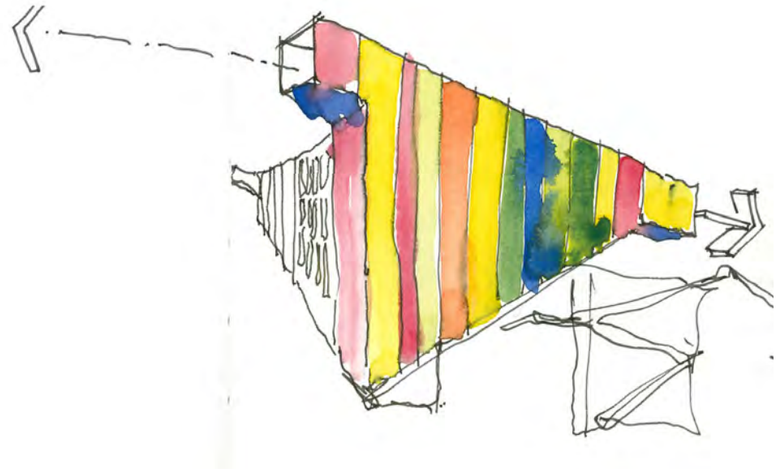
Hunter Street is long and crooked, with indistinct connections to its context. By making connections both physical and visual, the ability to ***Read the Street***, is greatly improved.



Something for everyone - The Activity Zone



Vegetate



Signal & Connect

1.4.1 Widen the street for the people

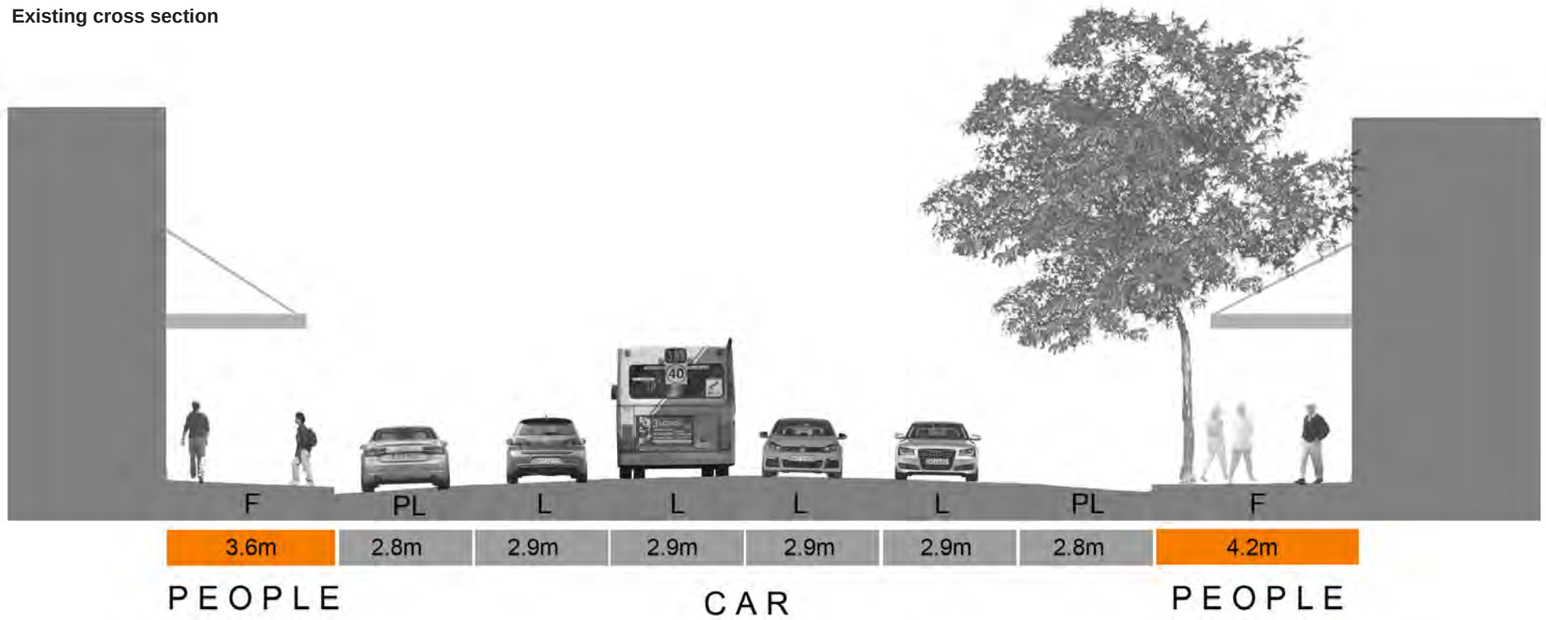
The present road reserve has a varying width ranging from 20 m in the east end, to 27-29 m at Civic and 25 m in the west end. The carriageway has four traffic lanes and two dedicated parking lanes from Stewart Avenue to Darby Street. The footpath is the standard width of 3.6 m to 4.2 m.

If the carriage way is reduced to two traffic lanes and two parking and/or peak period clearway lanes, substantial areas may be released to increase pedestrian related activities on either side of the carriageway.

This fundamental change goes to the heart of achieving the vision and strategies for Hunter Street and creates the space and therefore the opportunities for the projects proposed.

A Activity zone
F Footpath
C Cycling
P Parking
L Traffic lane
T Tree planting

Existing cross section



Proposed cross cection (OPTION 1 - DUAL CYCLING)

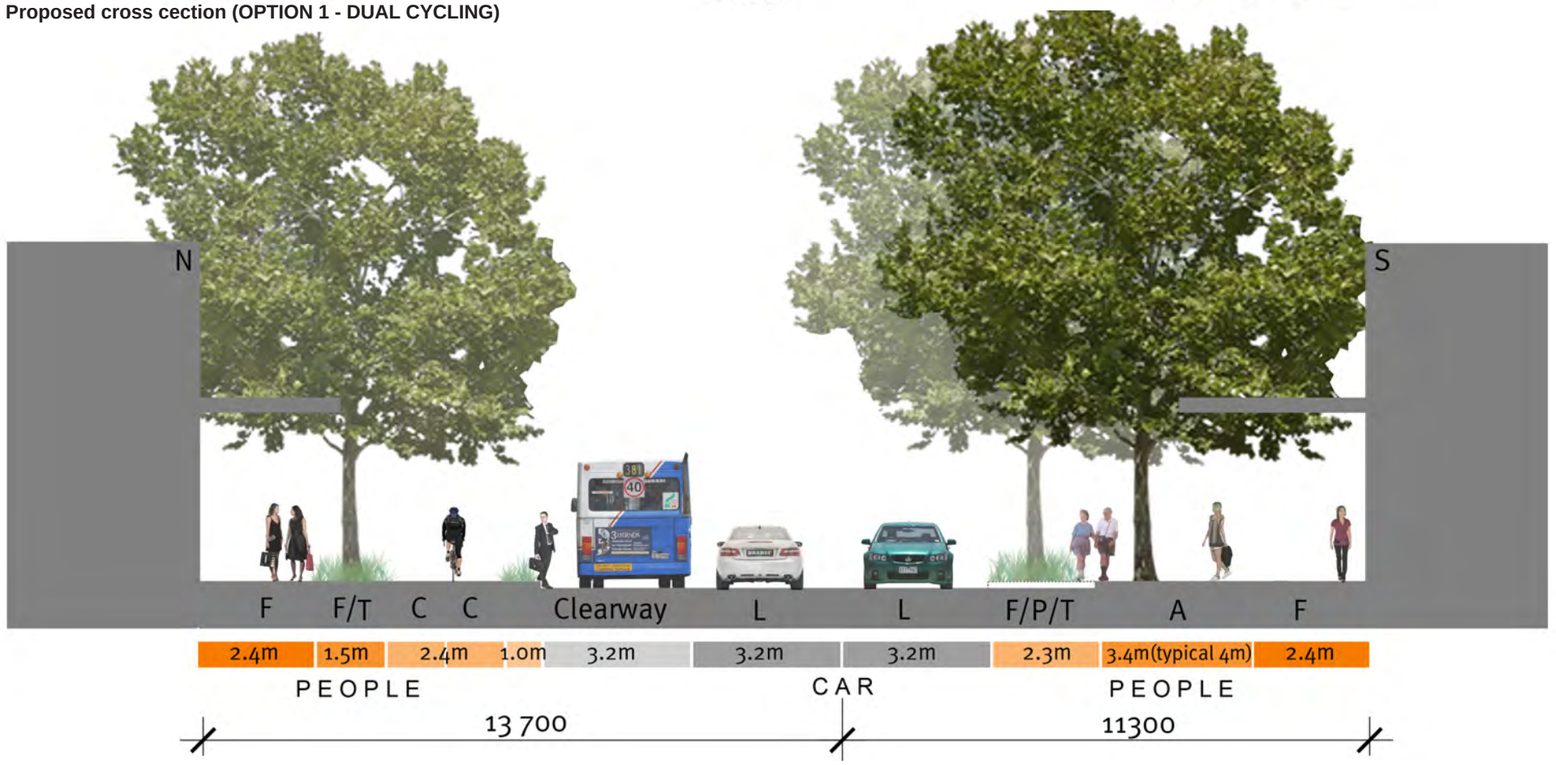


Diagram: Building uses and activity zone

(For illustration purpose only)

The widened footpath allows for a generous circulation and access zone along the building/street interface as well as a zone to accommodate activity. This zone is ideally a minimum of 4 m to allow the efficient placement of outdoor dining furniture. Activity zones should to some extent reflect uses in the adjacent buildings but could also accommodate unrelated activities both permanent and ephemeral such as play areas, tree planting, community or shop related productive gardens, plots of grass etc. If the zone expands it could also allow for other activities such as cycle paths, play or sport areas or a bosquet of trees.

Spill out

Leisure

Street markets

Cycling infrastructure

Diagram: Opportunities for green spaces and vegetated street components

(For illustration purpose only)

Trees are a fundamental element of many great streets around the world. Trees make the street more liveable, ameliorating some of the impacts of vehicles, giving shade, shelter and are a visual counterpoint to the building stock.

The ability to look out on, or to interact with vegetation (as the most accessible component of nature), has proven benefits to the human psyche.

The ‘green’ contribution may also be provided through initiatives other than trees, such as grass plots, bioretention gardens, green walls, vine covered pergolas or productive gardens.

The placement and type of vegetation needs to be carefully designed to respond to the urban fabric. For example, heritage buildings may only have low planting in front of them.

Avenue planting

Pot planting

Seasonal colour

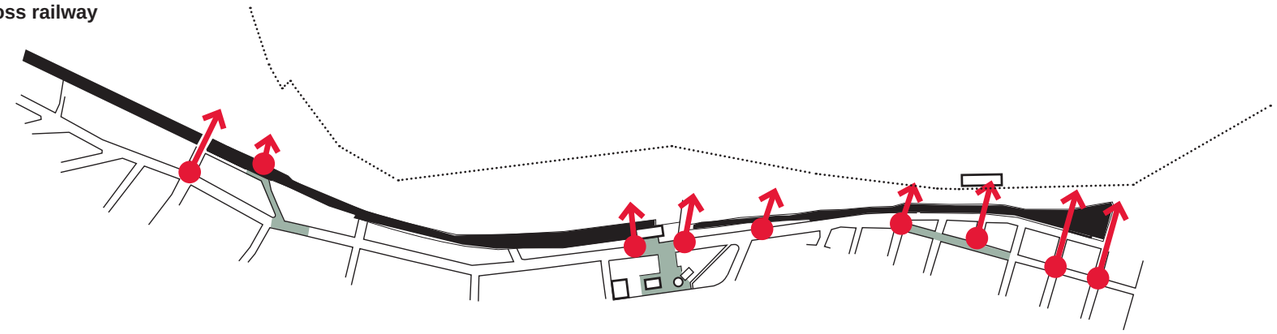
Green facade

Orientation along Hunter Street and the ability to recognise connections to destinations in the surrounding context are not clear. Making the available connections easily identifiable and providing additional connections to popular destinations allows the street to be more easily read. The insertion of bold and colourful markers provides clues to where you are and where to go to reach your destination.

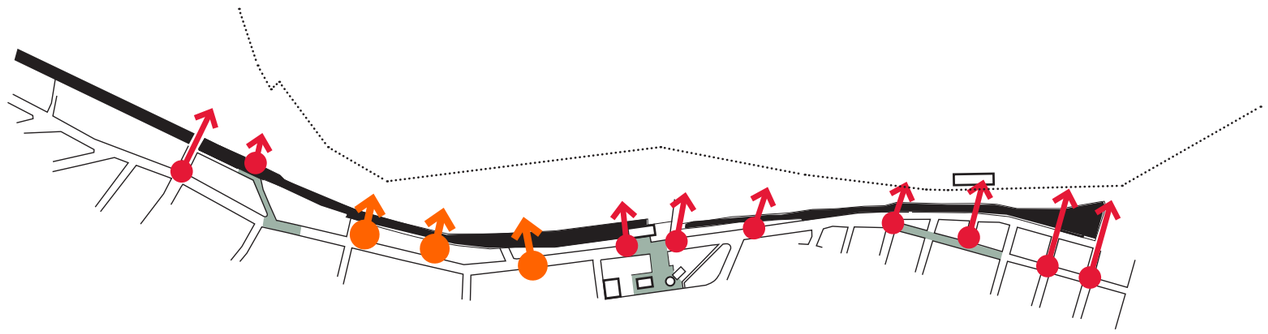
The railway line blocks pedestrian access to the north with few existing connections. Where connections do occur they are not easily identifiable. Additional strategically located connections are needed. The proposed design response is firstly, to reinforce the legibility of the existing links through various means and secondly, to create new links across the railway predominantly for pedestrians.

The legibility of the links is highlighted by the use of colour and by iconic elements that refer to the historic relationship of Hunter Street to shipping and other maritime elements.

Reinforce existing links across railway

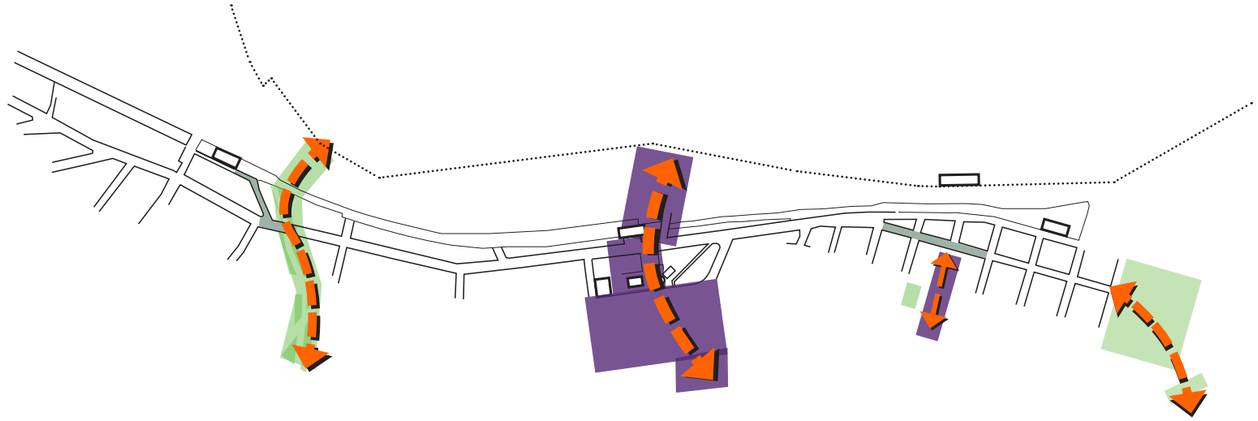


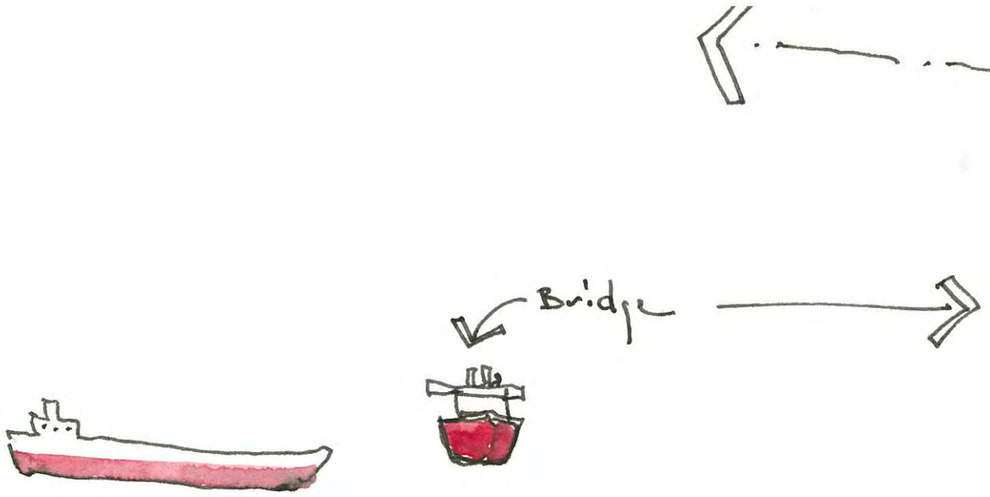
Create new links across railway

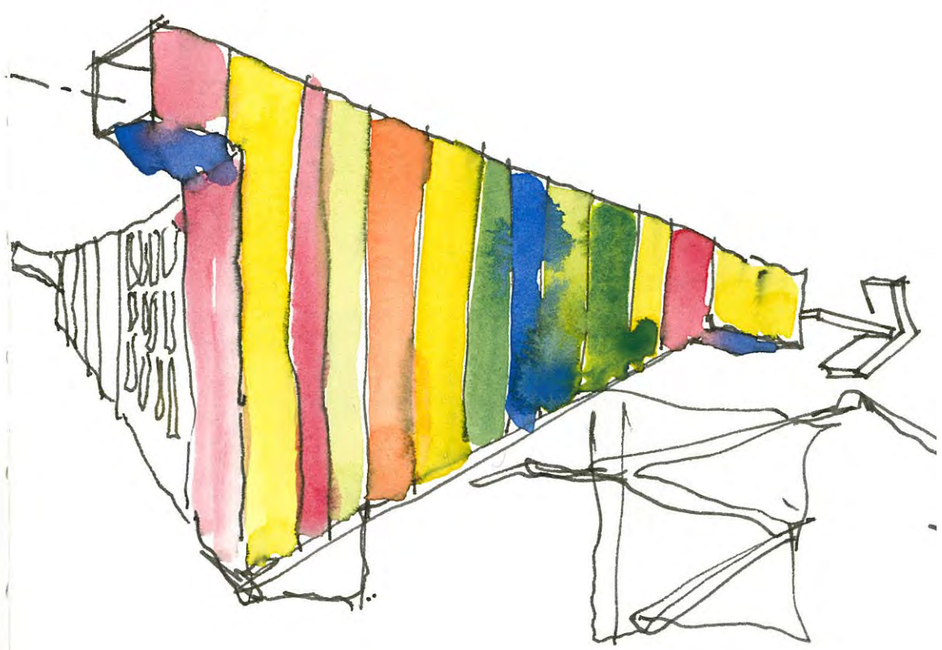


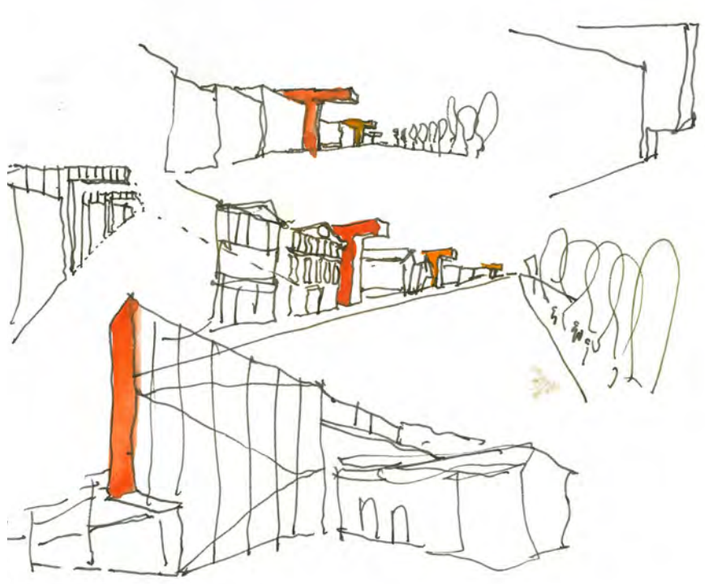
Connect to the city

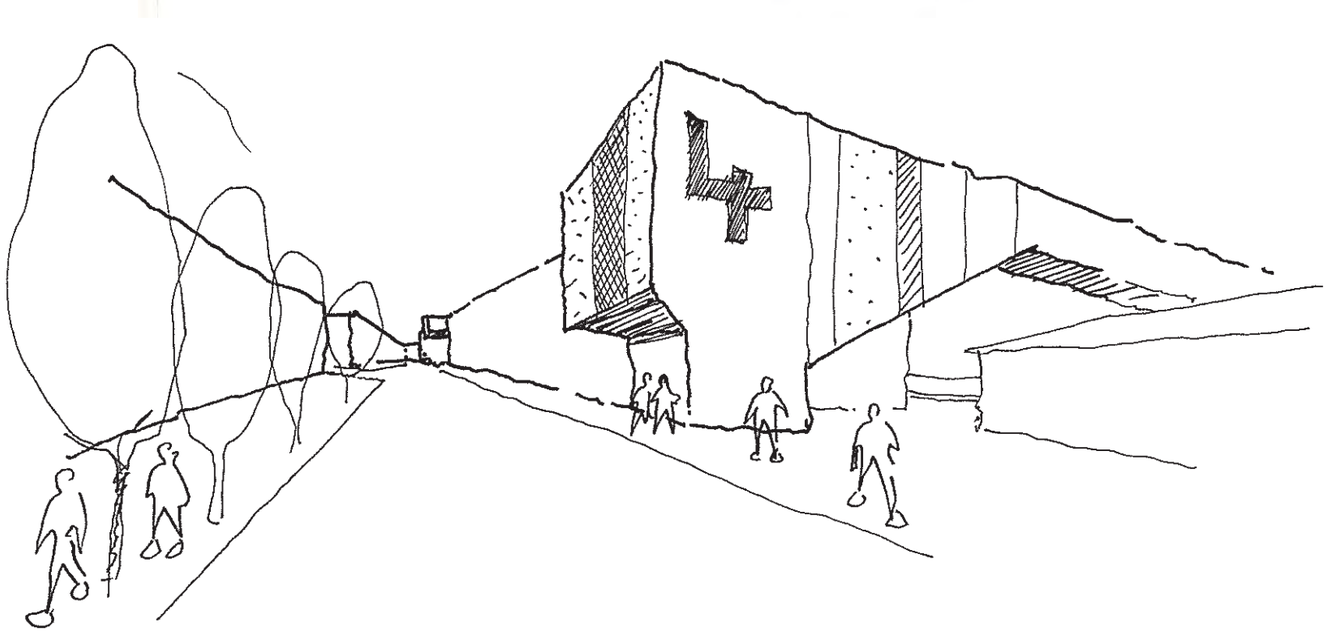
Connect to the landscape

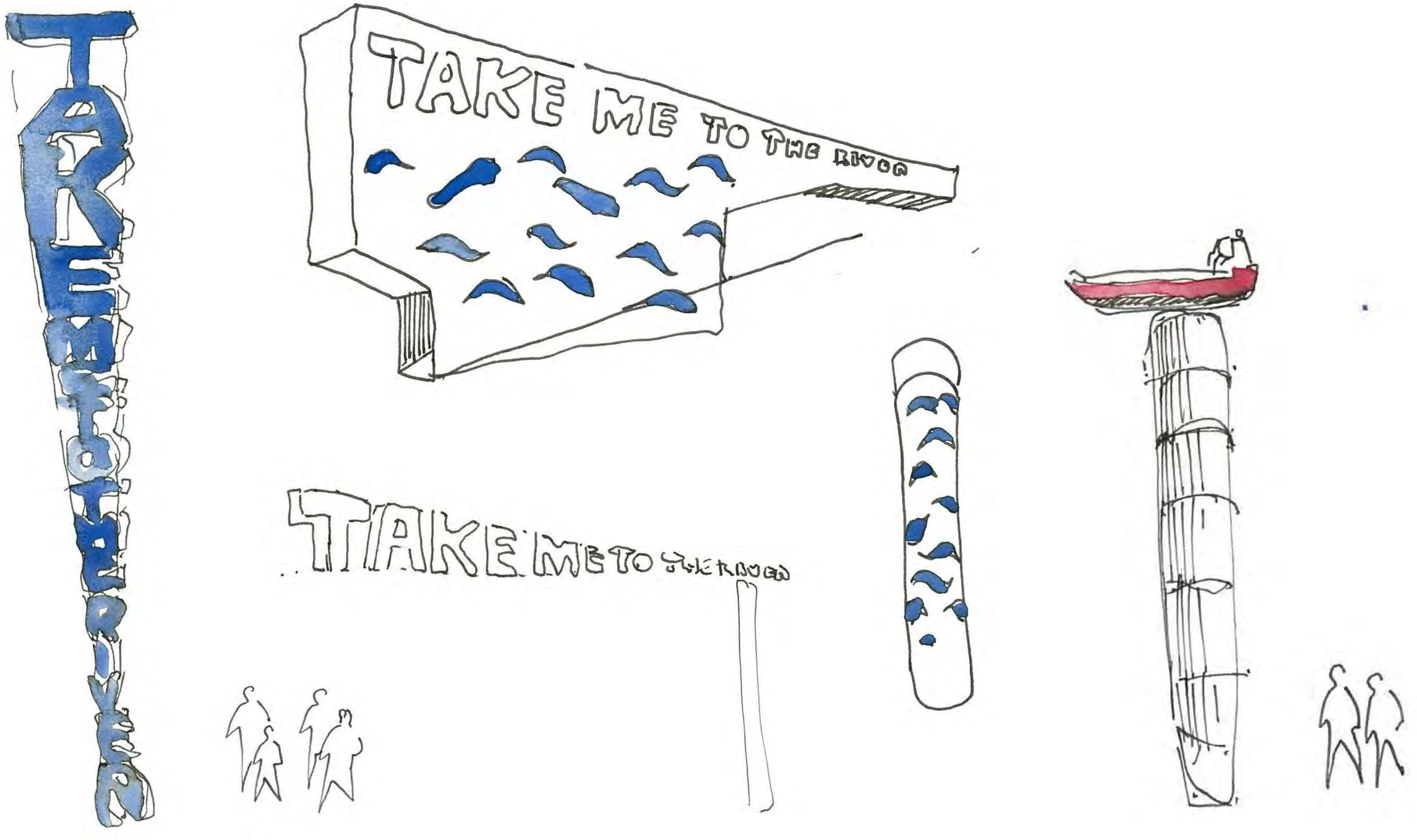



Bridge








TAKE ME TO THE RIVER
TAKE ME TO THE RIVER

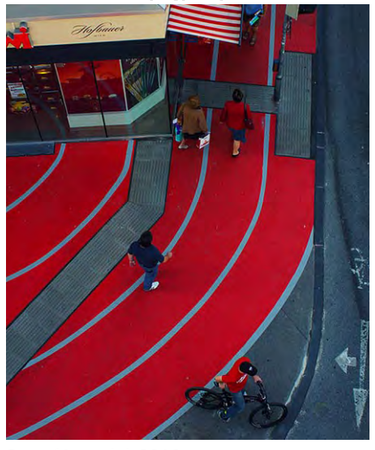
1.5. Short term & seasonal programs

Short term

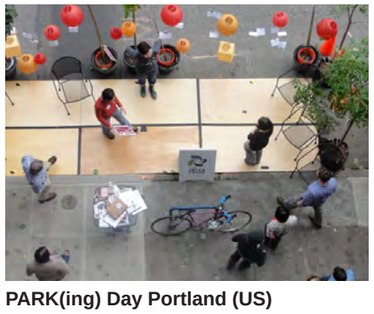
Short term initiatives consist of a number of interventions, both on the street and in the public domain, to test ideas that may have long term application. Programs such as “reclaim the streets”, “one day green” and “park(ing) day” have been successfully used in the past throughout the world as one day festivities. These initiatives allow the community to experience a change of use and enable administrators to monitor the success of the initiative or otherwise to gauge its potential for long term application.

PARK(ing) Day Fort Lauderdale (US)

Brisbane PARK(ing) Day



Graz (Austria) 2010



PARK(ing) Day Portland (US)

Seasonal

Many parts of the world, particularly in the northern hemisphere, celebrate the change of season by large scale “colonising” of spaces for outdoor activity.

Popular activities/festivals include:

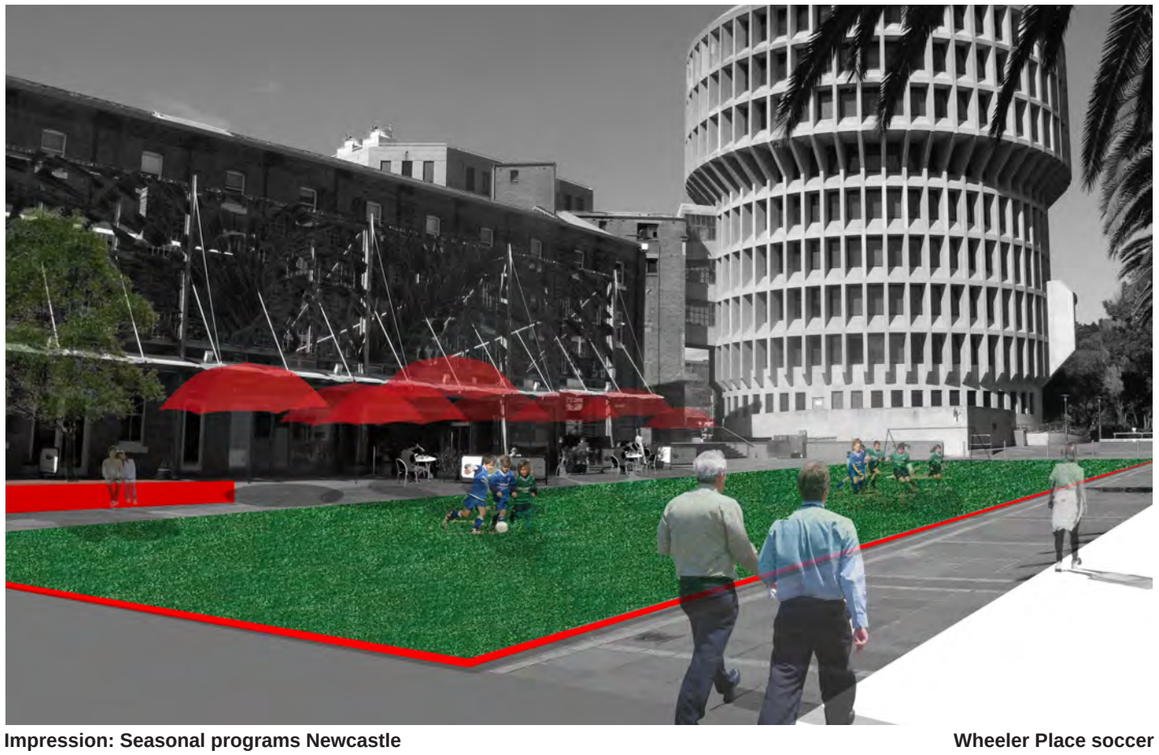
- Paris Plage where the riverside thoroughfares become car-free resorts, transforming them into beaches every summer.
- Nature Capitale where cities temporarily convert one of their major streets into gardens.

Outdoor cinema

Champs Elysee, Paris, Nature Capitale 2010

Street soccer South Africa

Paris Plage 2011



Impression: Seasonal programs Newcastle

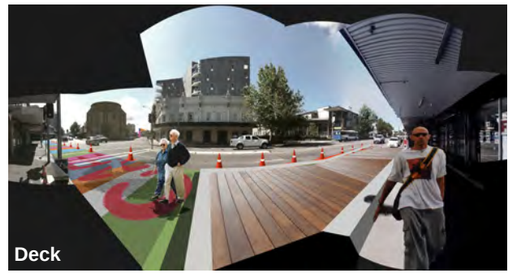
Wheeler Place soccer

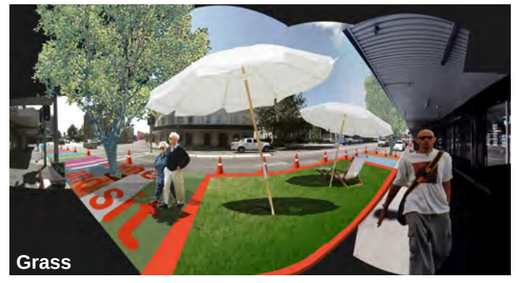
1.5.1 Temporary activation: Kit-of-parts

This initiative goes beyond the short term strategies of one day activation and looks at expanding activity zones for extended periods of time. The San Francisco ‘parklets’ is a precedent which offers enterprises the opportunity to manage their own ‘parklets’ or spill-outs areas for a designated period, either as a repeating seasonal initiative, or as a means to assess their viability for a future long term application.

(refer p.16 for precedent images of San Francisco ‘parklets’)

The kit of parts demonstrates different options for temporary activation starting with minimal intervention such as line marking or painted delineation of routes or activity areas, and working up to moveable planters, decks and furniture etc.





1.5.2 Temporary cycleway and activity zone

Creating a temporary cycle lane and activity zone would allow the council to test the effects of reducing the number of traffic lanes along Hunter Street and assess the benefits of giving more space to the pedestrian and cyclists.

A temporary cycleway could be located in the 2.4 m wide northern lane of Hunter Street. It could be defined by coloured asphalt paint, applied to the existing carriageway, and defined by a precast kerb or jersey type barrier.

A temporary activity zone could be located on the 2.4 m wide southern lane and a portion of the southern footpath. This activity zone would take the form of 1.2 x 4 m modules comprising a steel frame with concrete planks as decking. These modules could be laid on top of the existing footpath and carriageway and bolted together for stability. They could have adjustable feet in order to achieve a level platform and allow existing drainage systems to remain operational.

The deck module could be interspersed with a planter module to contribute the greening of the street and to provide a buffer or barrier to the traffic lane and driveway.

Plan temporary cycleway and activity zone

San Francisco ‘parklets’

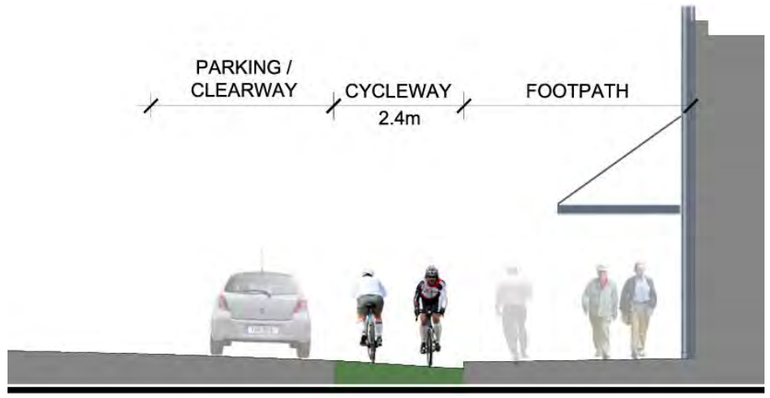
A Activity zone - temporary seating

B Temporary cycleway - barricade

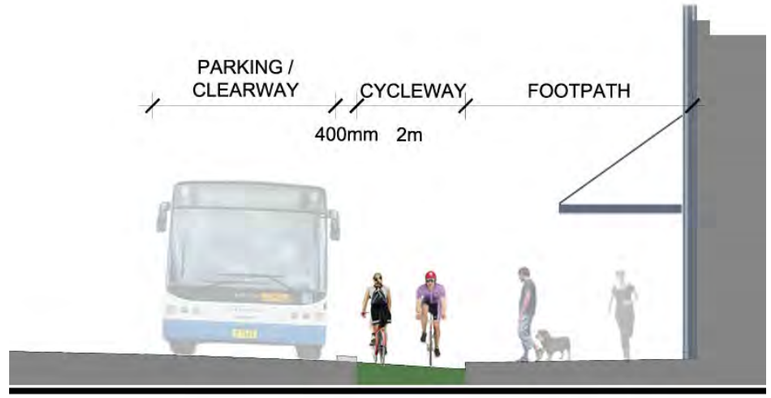
C Temporary cycleway - delineation

Impression: Temporary cycleway

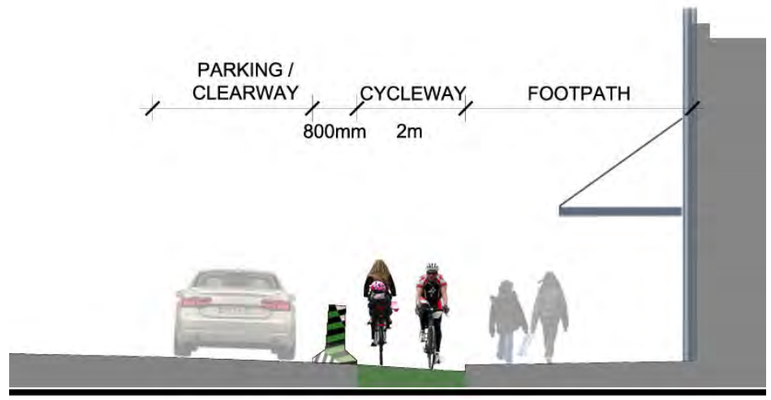
Temporary cycleway options



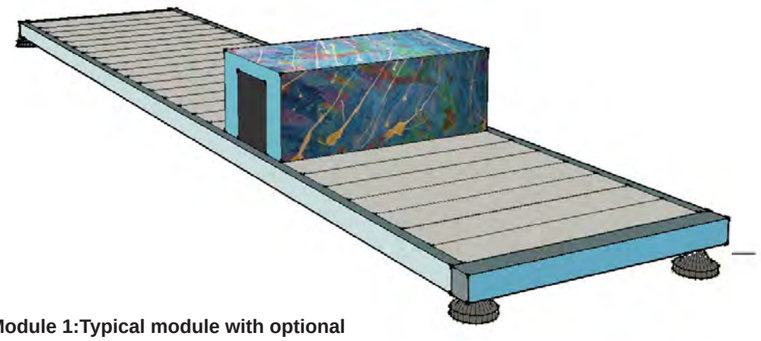
Option 1: 2.4 m cycleway with no roadside barrier



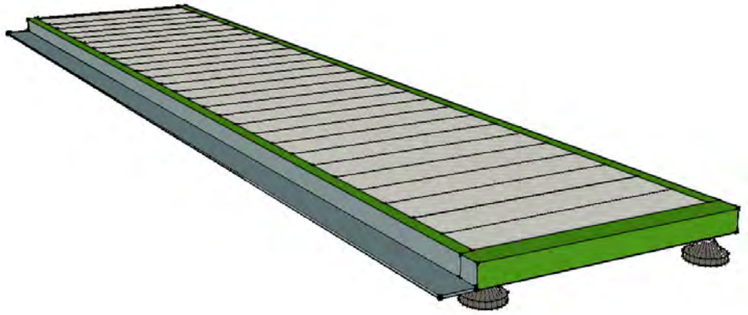
Option 2: 2 m cycleway with 400 mm wide kerb to road side



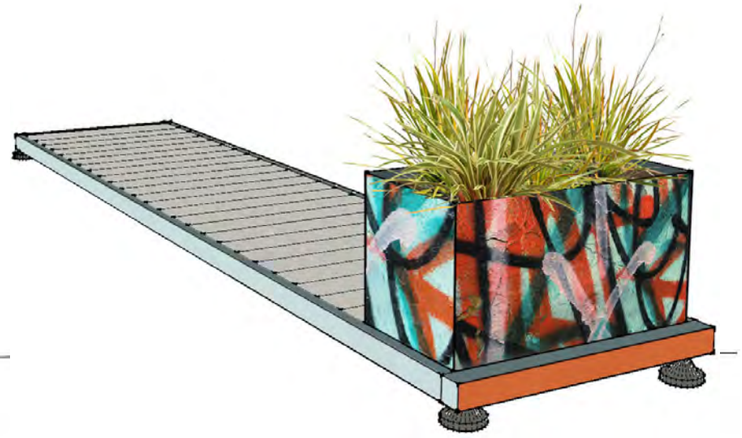
Option 3: 2 m cycleway with typical 800 mm wide jersey barrier to road side



Module 1:Typical module with optional precast concrete seating block (C)



Module 2: Module with right angle lip



Module 3: Module with steel planter

Plan - temporary activity zone

Part 2:
Implement

The project brief identified a number of issues grouped in broad theme areas. The Hunter Street improvement project aims to address these issues, describing design solutions that will promote initiatives identified in consultation with the Department of Planning & Infrastructure and the City of Newcastle.

Many of the responses to issues are directed by council's view of Hunter Street as the heart of the City.

1. Transport Modes

Issue

Hunter Street is currently dominated by cars to the detriment of other modes of transport. There is a strong commitment to a multi-modal approach to transport along Hunter Street with a desire to achieve a mode shift in favour of public transport and by cycling.

Initiatives

Provide and improve conditions for public transport and alternative modes of transport. In particular provide safe and effective cycle lanes and facilities.

Provide facilities for public transport users that make the experience more pleasant.

Cycling:

- Provide cycle infrastructure along Hunter Street.
- Assess appropriateness of different types of cycle ways (i.e. limitations for shared paths within activity centres).

Public Transport:

- Explore dedicated 'bus' movement, in part or full, to support Hunter Street as a multi-modal corridor.
- Allocate space within Hunter Street as a transit way that can accommodate bus priority movement and provide for future transit systems.

2. Traffic & Parking

Issue

Car traffic and parking dominate the street both by their presence and the speed of traffic. Shop owners view car parking as essential for their accessibility and business opportunities.

Initiative

Introduce measures to calm traffic such as a reduction in the number of traffic lanes to make the street safer for pedestrians and cyclists.

Rationalise the provision of parking along Hunter Street without negatively impacting shop owners perception of car parking provision.

3. Flooding & Stormwater

Issue

With the exception of the east end, Hunter Street is subject to flood inundation. This has resulted in new building ground floor levels being set substantially above footpath level.

Initiative

Consider relationships with and accessibility to activity areas proposed on the footpath.

4. Services Management

Issue

Vandalism and antisocial behaviour is a problem in Hunter Street.

Existing services may need to be relocated and access pits upgraded if the footpath is changed or the pavement upgraded.

Substation locations conflict with pedestrian movement.

Initiative

Provision of CCTV to manage antisocial behaviour.

Review service location and identify conflicts to pedestrian/cycle movements.

Provide additional power at event areas.

5. Lighting Strategy

Issue

Currently lighting in Hunter Street is designed for vehicle traffic not pedestrian movement.

Initiative

Identify areas requiring pedestrian grade lighting.

Consider the use of multifunction poles to reduce ground level clutter (Note PD Elements Manual is being undertaken as a separate commission).

6. Green Initiatives

Issue

Existing trees are malformed as a result of awnings. The City of Newcastle is looking to increase the canopy in the street

Initiative

Increase footpath widths to accommodate trees beyond the awning zone. Identify locations suitable to trees within the road reserve.

7. Urban Design

Issue

Activation, liveability and connectivity are all high priorities for Hunter Street.

Initiative

Build on existing successful activation areas including activity clusters around bus stops. Provide widened footpaths there as well as at cross streets and cross links.

8. Place Making Initiatives

Issue

Council has identified definite precincts where activation is occurring such as the bridal precinct, education precinct and café precinct.

Hunter Street has a rich heritage both in terms of building stock and social history

Initiative

Make spaces for a range of activities accommodating small groups to larger gatherings.

Where appropriate, incorporate heritage themes and showcase heritage items in concepts.

9. Public Domain Materials & Furniture

The project considers materials and furniture in a general sense. For specific detail refer to the City of Newcastle's public domian manual which is being undertaken as a separate exercise.

Design Principles

People the Street

- Reduce width of carriageway and re-allocate space to the footpath to encourage pedestrian based activities and cycling.
- Extended footpath spaces to be flexible (multi-use zone) and pleasant to encourage patronage of public domain. Create activity zone on southern side (min. 4 m wide) to maximise solar access.
- Allow activities of buildings to spill out into the street while maintaining a clear pedestrian circulation zone along the building edge. Provide min. 2.4 m cleared circulation zone to building edge.

Green the Street

- Increase street tree and verge planting to enhance the user experience and improve the micro-climate.
- Maximise solar access in winter and provide shade in summer.
- Consider widening of footpath to accommodate tree planting outside awning zone
- Consider tree planting in road reserve in kerb extensions or in the carriageway.

Read the Street

- Maximise connectivity and ease of access for pedestrians and cyclists by providing clear circulation zones and facilitate crossing of Hunter St and side streets through the use of footpath extensions
- Highlight heritage items as landmarks and character defining elements
- Minimise and manage conflicts between pedestrians and cyclists by clearly identifying relevant zones and defining mode priorities.
- Off-road cycle path preferred to encourage safe local cycling
- Avoid or minimise shift of centre line.

A Activity zone
F Footpath
C Cycling
P Parking
L Traffic lane
T Tree planting

OPTION 1) Dual Cycleway - 3 Lanes

3 traffic lanes with combined 2-way cycle path to the northern side

Description:

Combined cycling along northern side minimises crossover with side roads, provides the most spatially effective cycle path layout and best outcome for maximising solar access for useable pedestrian based activity space. (north cycling, south activity)

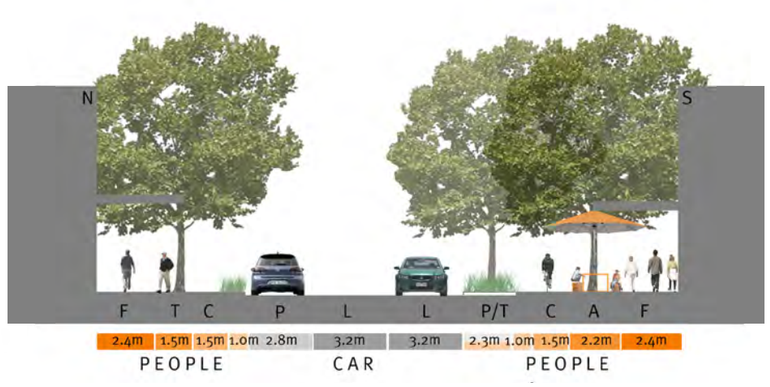
Northern side:

- Existing trees to be retained and supplemented by planting bands forming a buffer between pedestrians and cyclists.
- Bus stop zone designed as a shared zone with a minimum delineation to increase legibility for pedestrians or cyclists.
- Cyclist route to divert behind bus stop shelters without any encroachment to pedestrian circulation zone.

Southern side:

- Minor decrease in width of activity zone where cross section of Hunter Street is less than 25.7 m.
- Opportunity to extend locally into parking lane for outdoor spill-out of ground floor uses or footpath extension at pedestrian crossings.
- Bus stop zone designed as a layby from main travel lane into parking lane.

OPTION 2) Split Cycleway - 2 Lanes



2 traffic lanes and 2 dedicated parking lanes, with 1-way cycle path to each side

Description:

Separate cycle paths on north and south sides results in conflicts arising for pedestrians crossing cycle path to access public transport or parking. Potential to design as shared path.

Northern side:

- Existing trees to be retained and supplement by planting bands forming a buffer between pedestrians and cyclists.
- Bus stop zone designed as a shared area with minimum delineation to increase legibility for pedestrians or cyclists.
- Cycle route to divert behind bus stop shelters without any encroachment to pedestrian circulation zone.

Southern side:

- Increase in width of northern footpath resulting in decrease in width of southern footpath and minimising the activity zone (2.3 m).
- Dedicated activity zone (typically 4 m wide) is only achieved where cross section is wider then 26.7 m.
- All other areas have no activity zone but a wider circulation zone.

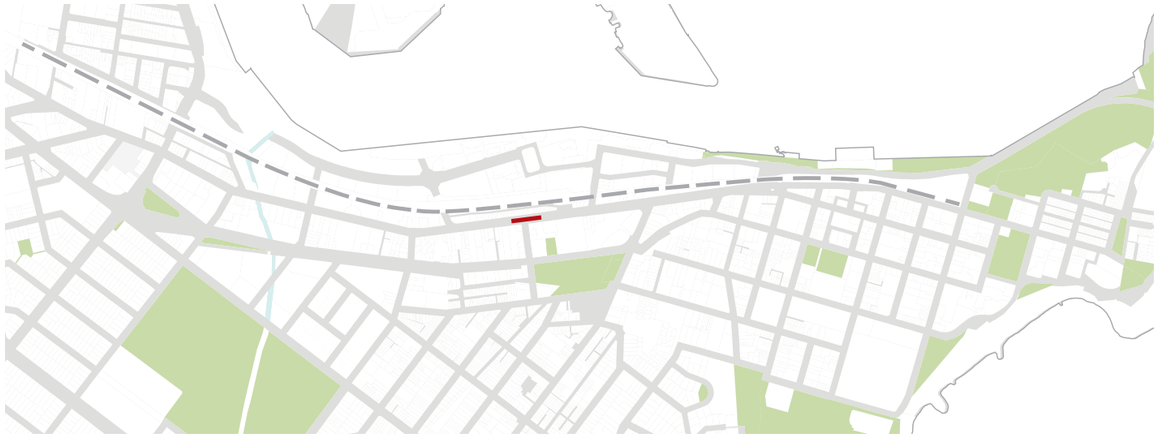
(refer to Part 3 Appendix)

Photomontage - Option 1 activity zone at west end

2.1.3 Dual cycleway on north side

A Activity zone
F Footpath
C Cycling
P Parking
L Traffic lane
T Tree planting

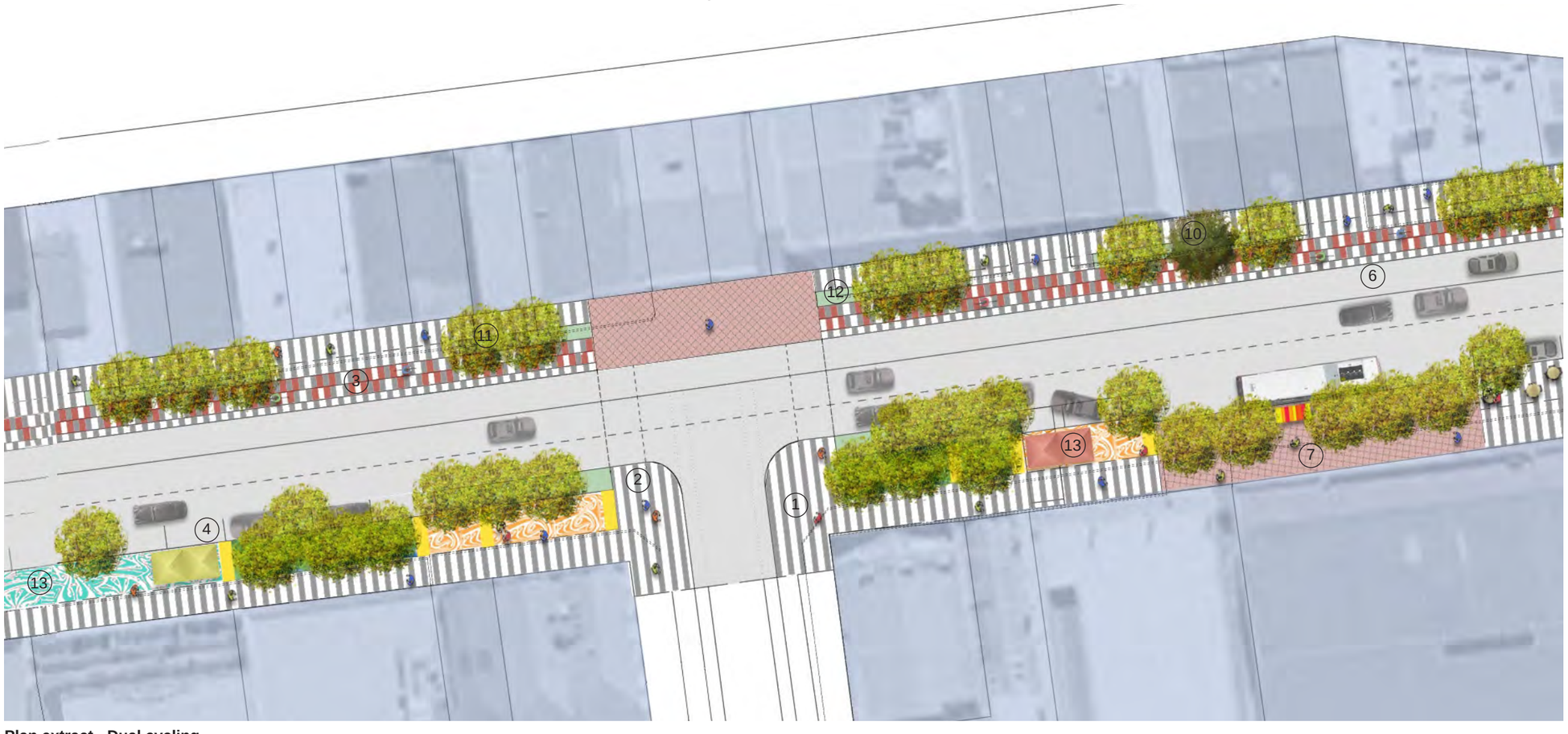
Cross section - Dual cycleway



Location plan

Legend

1. Footpath pavement
2. Footpath / Kerb extension area
3. Dual cycle way
4. Dedicated parking lane
5. Driveway
6. Bus clearway east
7. Shared footpath i.e. Bus stop zone
8. Road crossing shared space
9. Change in road surface material
10. Existing tree planting
11. Proposed planting
12. Proposed verge planting
13. Activity zone modules: temporary, passive recreation, active recreation, vegetate, retail/commercial spill out



Plan extract - Dual cycling

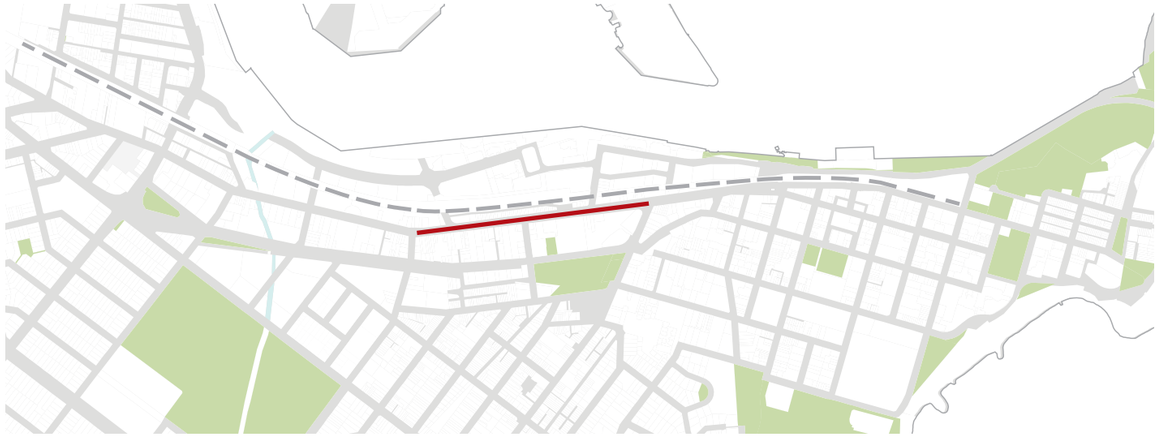
Scale 1:500

Location plan

West end plan (not to scale)

Legend

1. Footpath pavement
2. Footpath / Kerb extension area
3. Dual cycle way
4. Dedicated parking lane
5. Driveway
6. Bus clearway east
7. Shared footpath i.e. Bus stop zone
8. Road crossing shared space
9. Change in road surface material
10. Existing tree planting
11. Proposed planting
12. Proposed verge planting
13. Activity zone modules: temporary, passive recreation, active recreation, vegetate, retail/commercial spill out



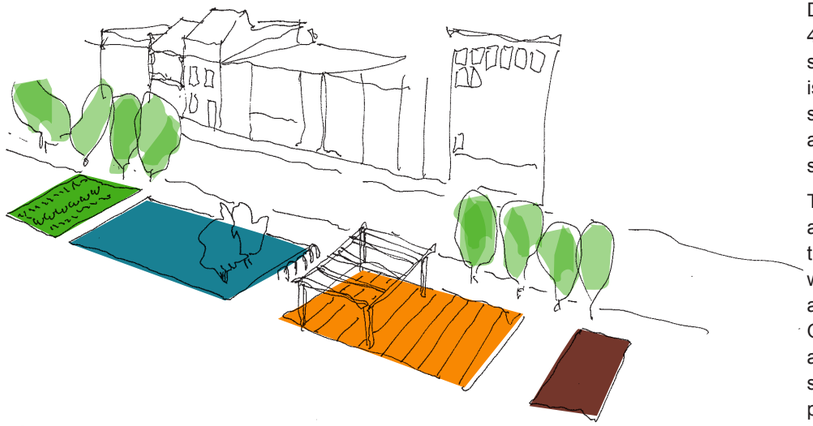
Location plan

Legend

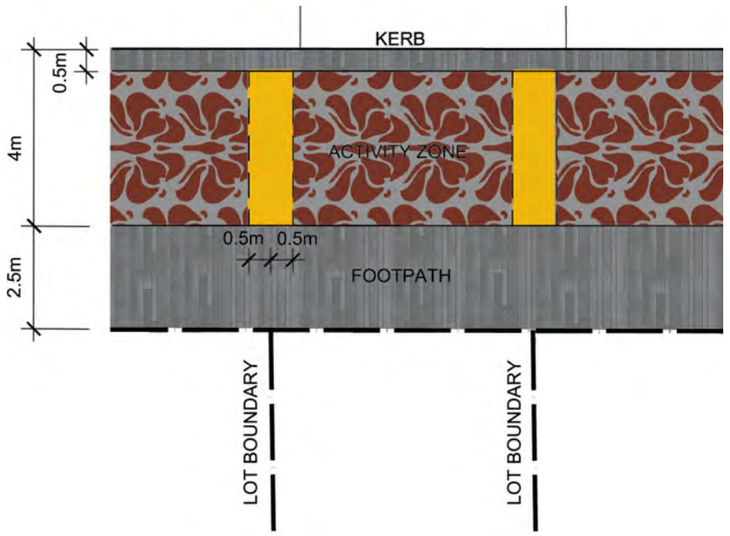
1. Footpath pavement
2. Footpath / Kerb extension area
3. Dual cycle way
4. Dedicated parking lane
5. Driveway
6. Bus clearway east
7. Shared footpath i.e. Bus stop zone
8. Road crossing shared space
9. Change in road surface material
10. Existing tree planting
11. Proposed planting
12. Proposed verge planting
13. Activity zone modules: temporary, passive recreation, active recreation, vegetate, retail/commercial spill out

Civic plan (not to scale)

2.2 Activity zone



Impression activity zone



Activity zone set out

Activity zone

Description: The activity zone is a min. 4m wide band that will run along the southern side of Hunter Street. Its aim is to re-activate the street by providing space and opportunities for such things as vegetable gardens, stalls, play spaces, seating areas and bus stops.

This zone has been designed to allow adaptation over time to accommodate the evolving needs of the community. It will initially be laid as a combination of asphalt with a painted surface or paving. Over time the asphalt may be removed and replaced with other ground surfaces such as decomposed granite, softfall or planting to accommodate desired uses of the space.

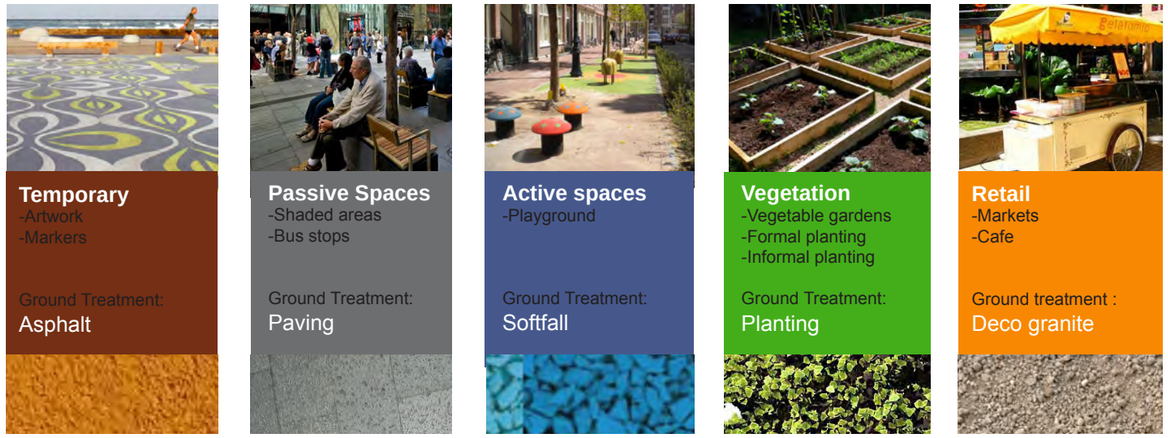
The activity zone is divided into sections by a strip of painted asphalt that directly relates to the lots along Hunter Street. This provides a rhythm in the street and breaks the activity zone up into manageable portions. The strip of painted asphalt also allows paved access to parking bays in the event that the future activity zone module impedes movement.

Activity zone categories

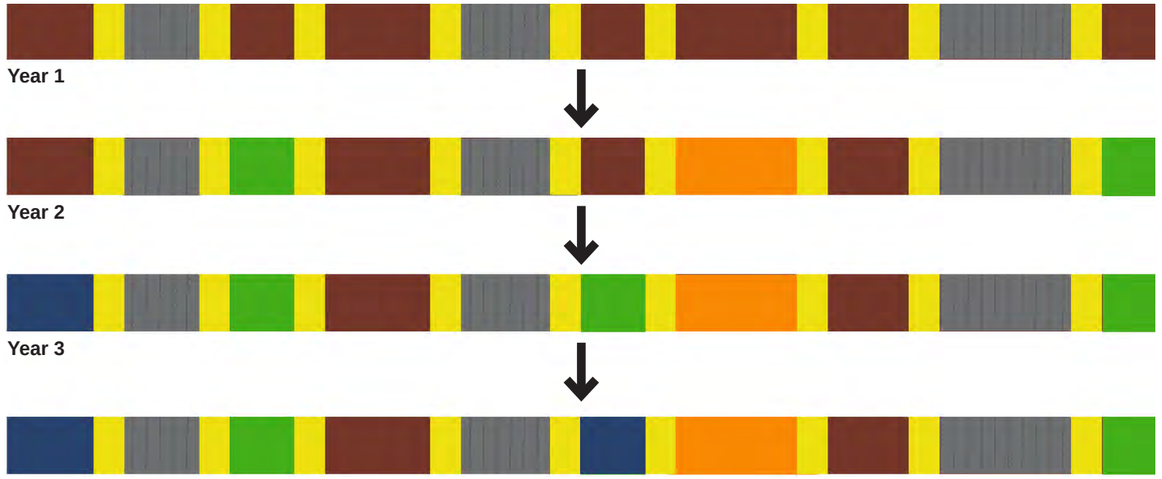
Categories: There are five categories of space that may occur in the activity zone: temporary, passive, active, vegetated and retail spaces. These spaces are defined by different ground surfaces, as shown adjacent. Additional elements will be found across all of the categories of the activity zone such as street furniture, bike racks, trees, lighting and signage.

Activity zone progression

As the use changes, the activity zone changes. The activity zone responds to the uses of the adjacent buildings, so as the needs and requirements of the shop owners and general public change over time, each section can be developed accordingly. Dividing the activity zone into sections and constructing it initially in asphalt allows for easy removal and refurbishment over time.



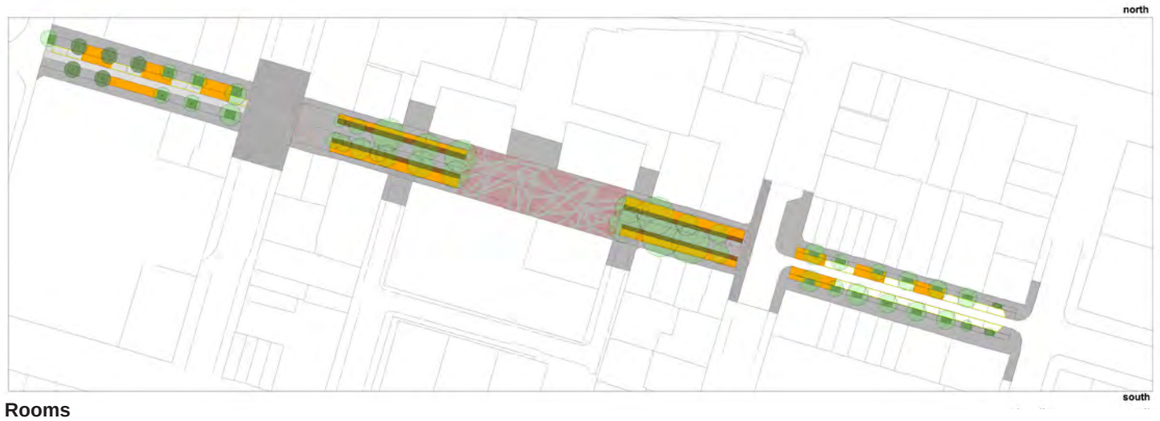
Activity zone categories



Activity zone progression

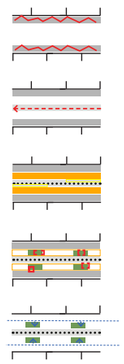
Photomontage Hunter Street Mall

Avenue



Rooms

Forest



Principles

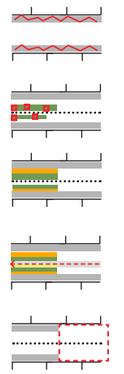
1) Clear building edge to create circulation zone.

2) Centrally align vehicular route.

3) Define activity zones, delineate parking.

4) Formalise tree pits and align within activity zone.

5) Potential for WSUD. Align drainage with tree pits



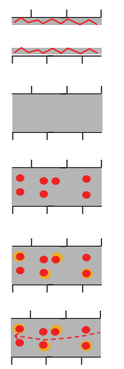
1) Clear building edge to create circulation zone.

2) New tree clusters based on existing tree alignments.

3) Activity zones between circulation zone and tree alignments.

4) Align vehicular route, parking achieved where carriageway achieves 5.8m between clusters.

5) Create internal “winter” event space.



1) Clear building edge to create circulation zone.

2) Unify the ground plane.

3) Reinforce the asymmetrical arracngement of tree planting

4) Allocate activity zones around trees .

5) Align vehicular route accordingly.

Hunter Street Mall is significantly narrower than other parts of Hunter Street and is one way traffic. It has a substantial tree canopy.

In recognition of the positive attributes of the existing trees and the most recent work installed by Newcastle Council at the western end, three options were considered to simplify the space, while working with the existing tree stock.

Avenue

This concept treats the street as a formal avenue with streetscape elements aligned parallel to the carriageway and regular tree planting. Activity zones are located between trees with pedestrian circulation located along retail frontages. Parking is located along the northern side.

Rooms

This option creates a series of separate spaces defined by the street block and by distinct street tree planting patterns. The bands of planting define the activity zones. The central space is elongated with no tree planting to create an internal “winter room”. Car parking is limited to either end of the Mall reinforcing the central section as a space for activity.

Forest

This option retains trees in their existing locations. New infill trees are planted to reinforce the existing informal arrangement. Activity zones occur around the base of selected trees taking the form of raised seating platforms. Parking similar to the rooms concept is restricted to either end of the Mall.

2.3.2 Hunter Street Mall consolidated concept

Read

- Declutter space by using multifunctional elements,
- Simplify materials palette,
- Highlight heritage buildings with paving band
- Create two distinctive zones divided by linear drainage channel:
  1. building frontage pedestrian circulation zone
  2. central shareway including vehicle thoroughfare, parking, trees and pedestrian areas
- Shared zone principles: threshold treatment to vehicle entries, funnel vehicular movement around parking bays and tree planting

Green the street

- Retain and complement tree planting,
- Formalise tree avenue

People the street

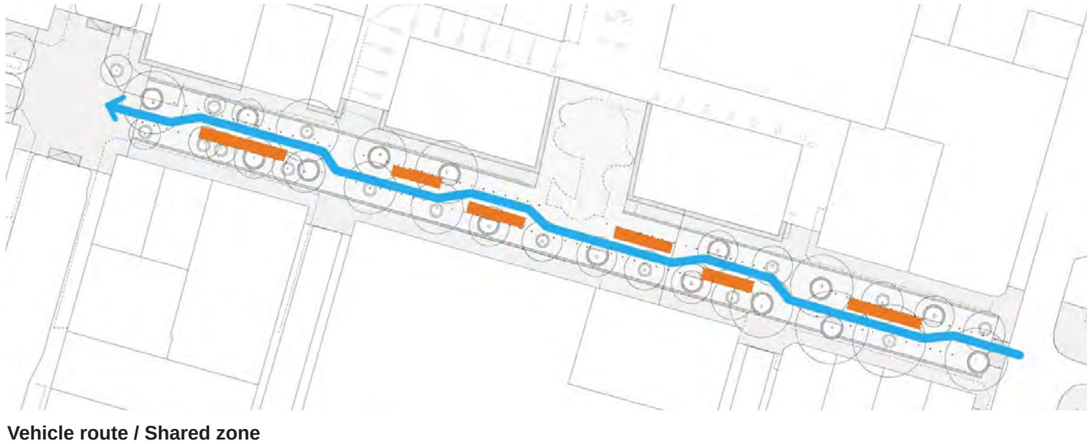
- Provide ample circulation and rest areas,
- Provide opportunities for activation

building frontage circulation zone
planting, activity and rest areas

Zoning

trees
circular bench
half circle bench
bollards/light posts

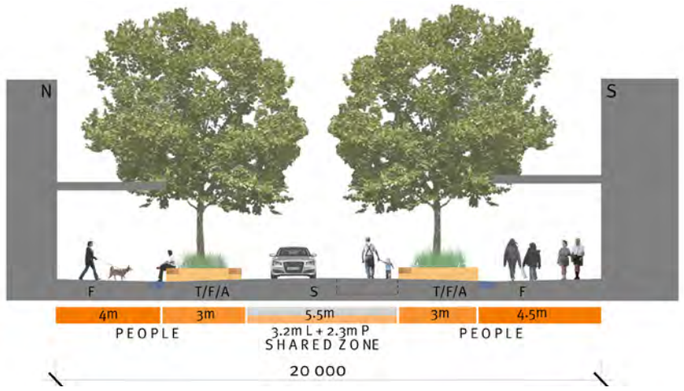
Integrated vehicle barriers



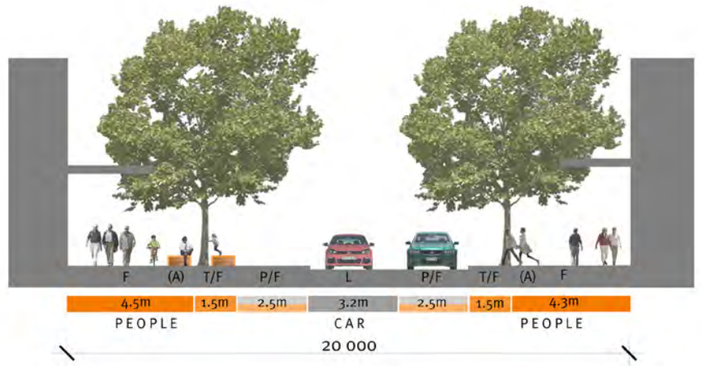
vehicle route
parking

Vehicle route / Shared zone

A Activity zone
F Footpath
C Cycling
P Parking
L Traffic lane
T Tree planting
S Shared zone



Section AA' - Shared zone



Section BB' - One way street

Legend

1. Footpath pavement, central circulation & vehicular zone
2. Building frontage circulation zone
3. Threshold treatment for heritage buildings
4. Road crossing shared space
5. Footpath extension
6. Parking
7. Existing tree planting
8. Proposed planting

Hunter Street Mall plan (not to scale)

2.3.3 Hunter Street Mall - Bridge link square option “Consolidate”

Description

New meeting place with amphitheatre and information kiosk provides access to footbridge.

Southern end of existing bridge structure and ramp removed to accommodate new ramp and stair structure

- Signage lighting
- Potential retail space underneath
- Concrete seating walls create grassed terraces
- 1:20 switch back ramp on eastern side
- Central stair access path

Read

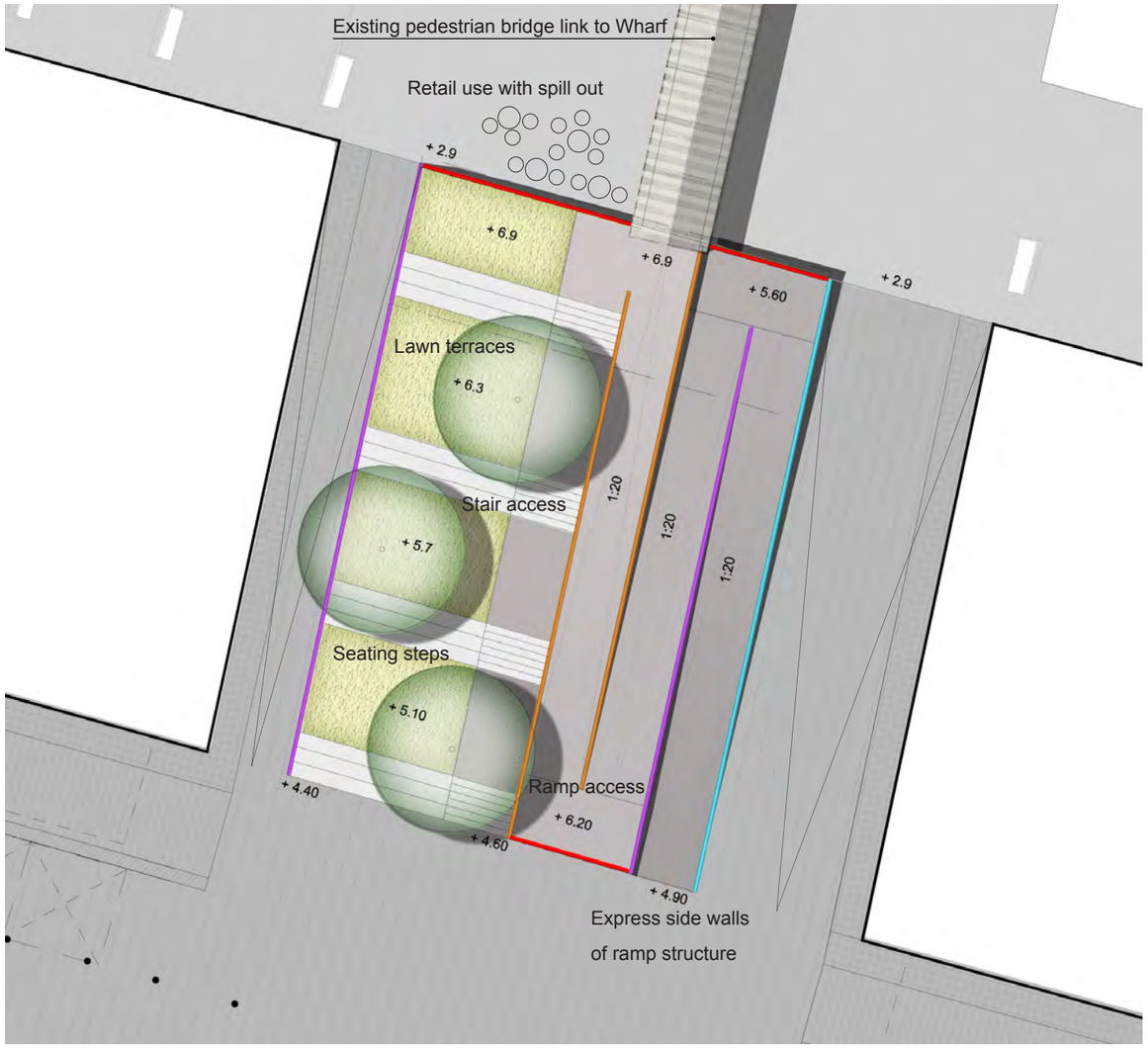
- Declutter current bridge access from Hunter Street Mall
- Create a more usable space
- Express side walls of structure (illumination, colour)

Green

- Provide green space by creating lawn terraces
- Provide shade and amenity by tree planting

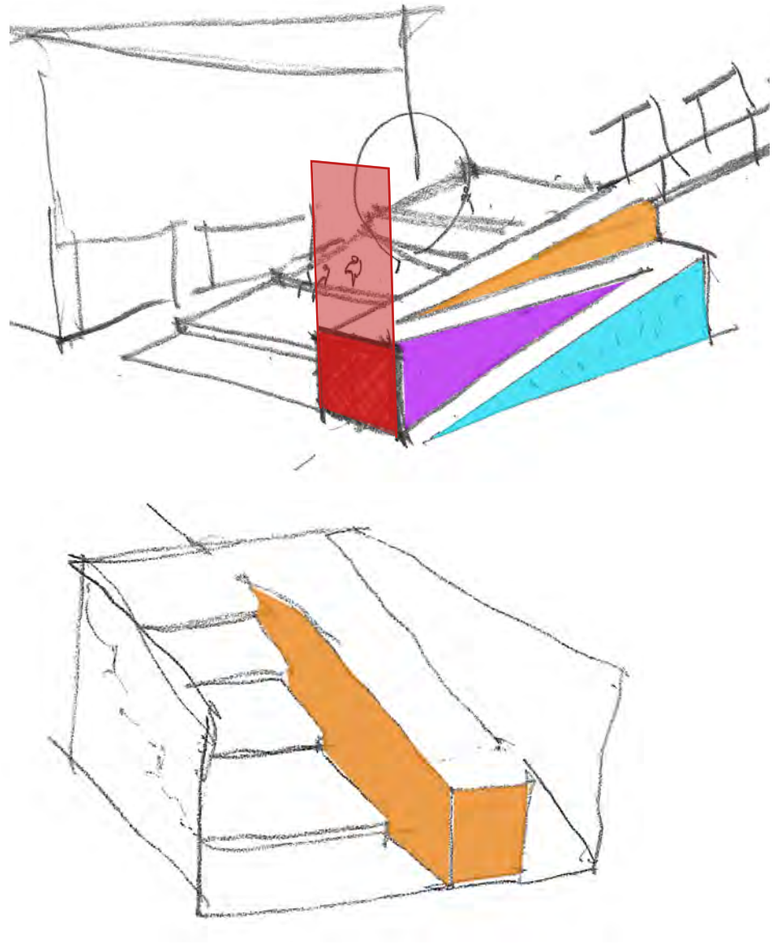
People

- Improve accessibility
- Provide gathering space & ample rest areas
- Create activation by providing retail space underneath



Plan

Sketch - add colour to aid wayfinding and create identity



TKTS Booth, NYC (USA)

2.3.3 Hunter Street Mall - Bridge link square option “Replace”

Description

Green block creates a volume in a central location along the Hunter Street Mall that allows gathering, informal events and access.

Replace existing pedestrian bridge to consolidate levels and reduce length of ramp access

- Central access to footbridge via ramp
- Concrete seating walls create grassed terraces
- Batter to outside face of structure

Read

- Declutter current bridge entry
- Create a more usable space

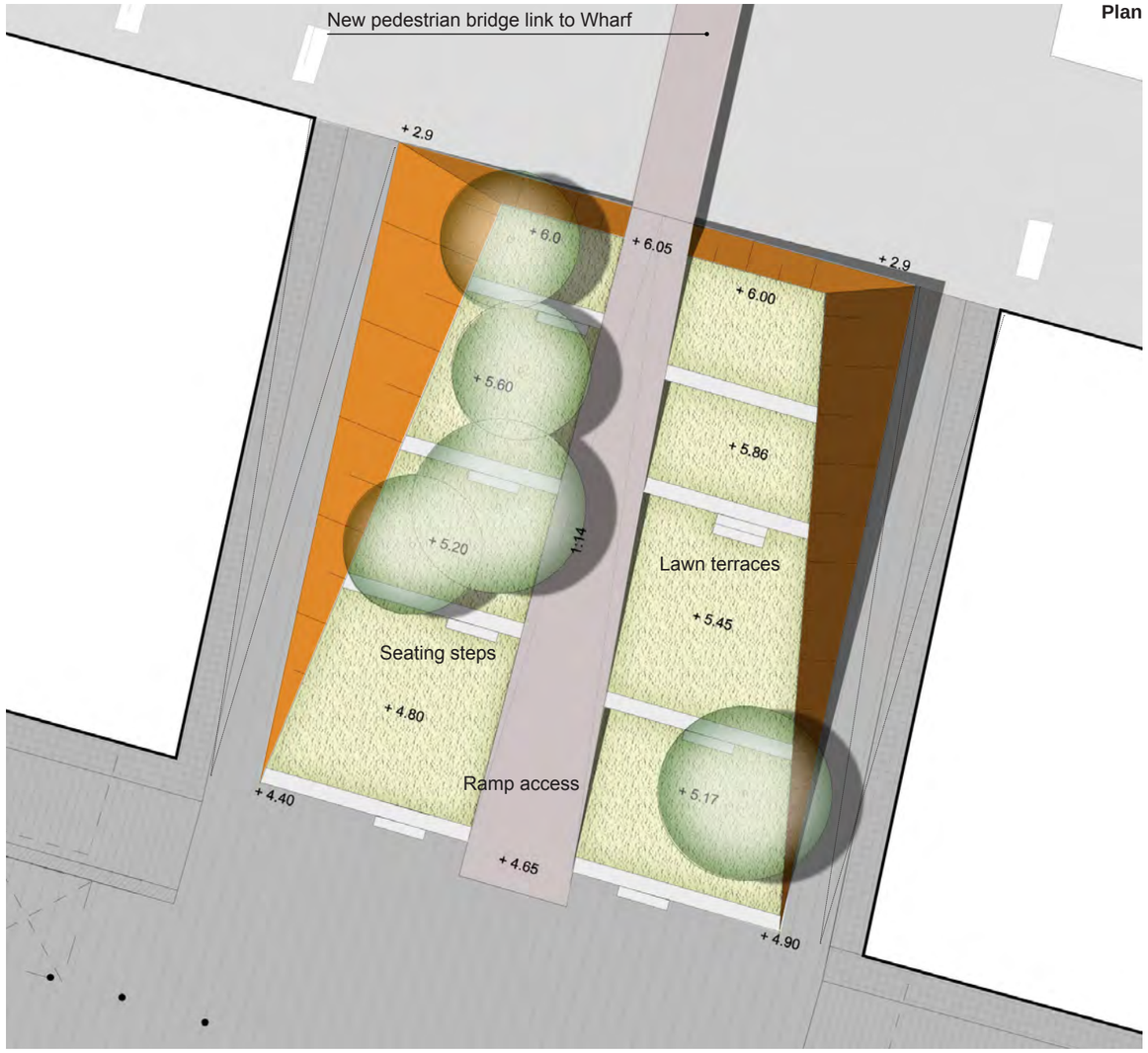
Green

- Provide green space by creating lawn terraces
- Provide shade and amenity by tree planting

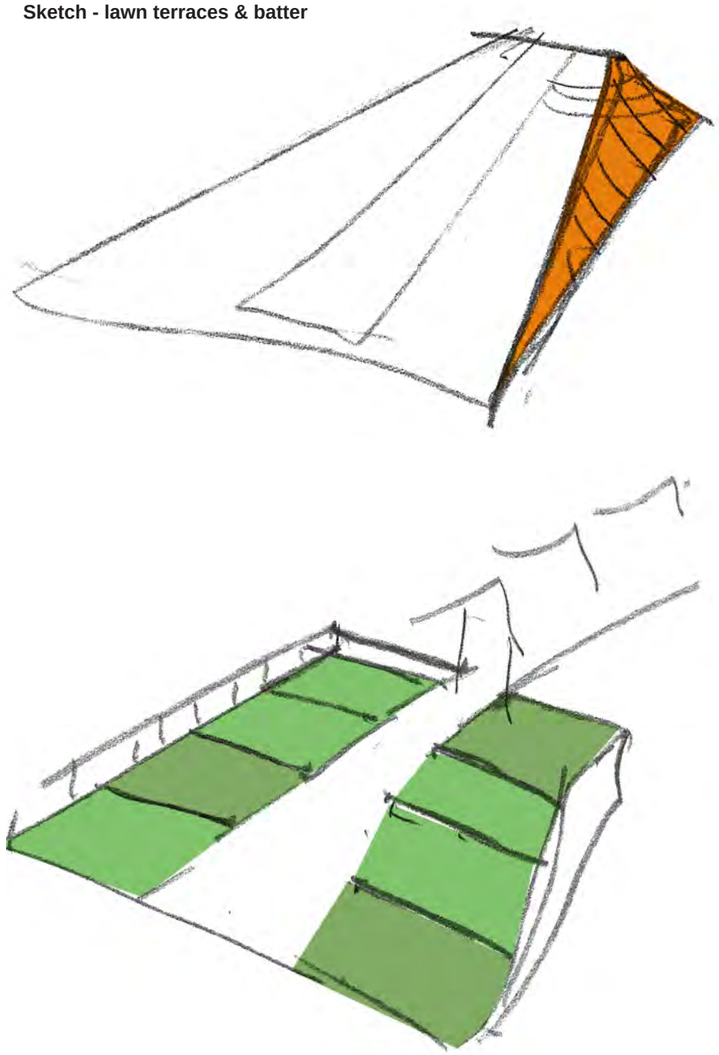
People

- Improve accessibility
- Provide gathering space & ample rest areas

Plan

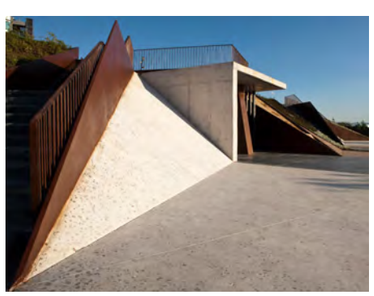


Sketch - lawn terraces & batter



Precedent projects

Park Monte Laa, Vienna (AU)



High Line Park, NYC (USA)

Jardin Botanico, Barcelona (ES)

Allerpark, Wolfsburg (GER)

Photomontage Civic Forecourt - option Palm Cluster

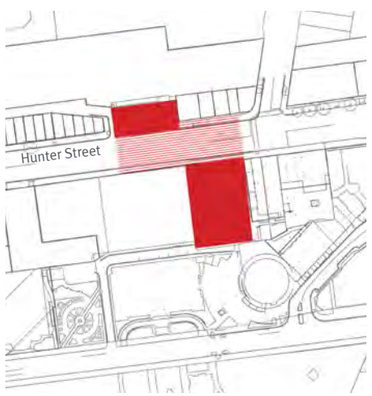
2.4.1 Civic Square design development

In considering the treatment of Civic Station Forecourt, its relationship to Wheeler Place and the circulation patterns to the north through the station to the Newcastle Museum and beyond to the Honeysuckle harbour foreshore, as well as south through to Civic Park, need to be considered.

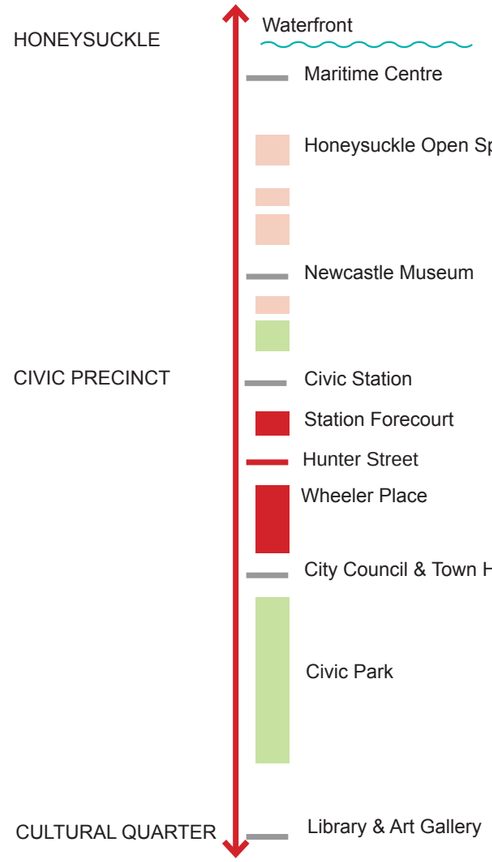
In response to the analysis (refer Section 3.3 Civic Square Context) the design extends both Civic Square and Wheeler Place to join via a flush threshold across Hunter Street.

Three options were considered for the treatment of this extension. The design is determined by a response to Wheeler Place as the larger and more dominant space. All options feature an upgraded and extended rail bridge connection which is expressed on Hunter Street to act as marker for the railway station and to indicate the presence of a pedestrian access over the rail corridor. The options considered are described below.

Context plan



Wheeler Place & Hunter Street crossing



Cluster of Palms

Wheeler Place is a generous open square capable of accomodating large scale events. At other times, its large size results in a perceived lack of activity. The Cluster of Palms option aims to keep the ground plane clear of clutter, while introducing elements that offer shade, character and pedestrian amenity. The small footprint of the palms allows for maximum permeability, ease of pedestrian movement and clear sight lines when the space is in events mode. The random planting pattern relates to the informality of the planting in Civic Park. The palm clusters in both Civic Square & Wheeler Place and the unified paving treatment coupled with the Hunter Street threshold reinforces the connection between the spaces.

Bosquet

The Bosquet reinforces the strong geometry of the two spaces. The formal nature of Wheeler Place is emphasized by the rectilinear paving pattern and the row of Canary Island Palms which directs the pedestrian axis. The intervention of the Bosquet overlays a grid of deciduous trees accentuating the regular nature of the space, creating a more liveable environment and linking the two spaces.

Both the Cluster of Palms and Bosquet designs incorporate and retain the existing high quality paving in Wheeler Place.

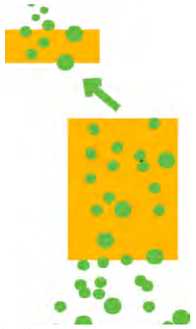
Raised Lawns

A series of raised lawns are inserted within Civic Square and Wheeler Place creating a space within a space that encourages passive activity while concentrating and directing pedestrian movement. The soft and inviting texture and materiality of the raised elements contrasts with the concrete and granite pavers. The edges provide ample incidental seating. The feature tree at the end of the plaza acts as a focal point when viewed from Hunter Street.

Of the three options tabled, the Palm Cluster and the Bosquet were developed in more detail.

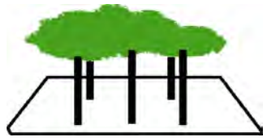
Concept - Cluster of Palms

Maintain open ground plane

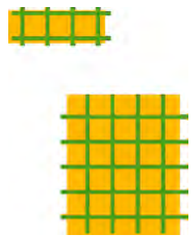


Join the trees

Concept - Bosquet



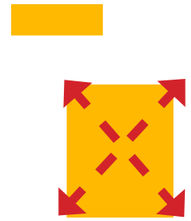
Formalise ground plane



Provide a uniform canopy

Concept - Raised Lawns

Soften ground plane



Organise circulation

Long section - Cluster of Palms

Long section - Bosquet

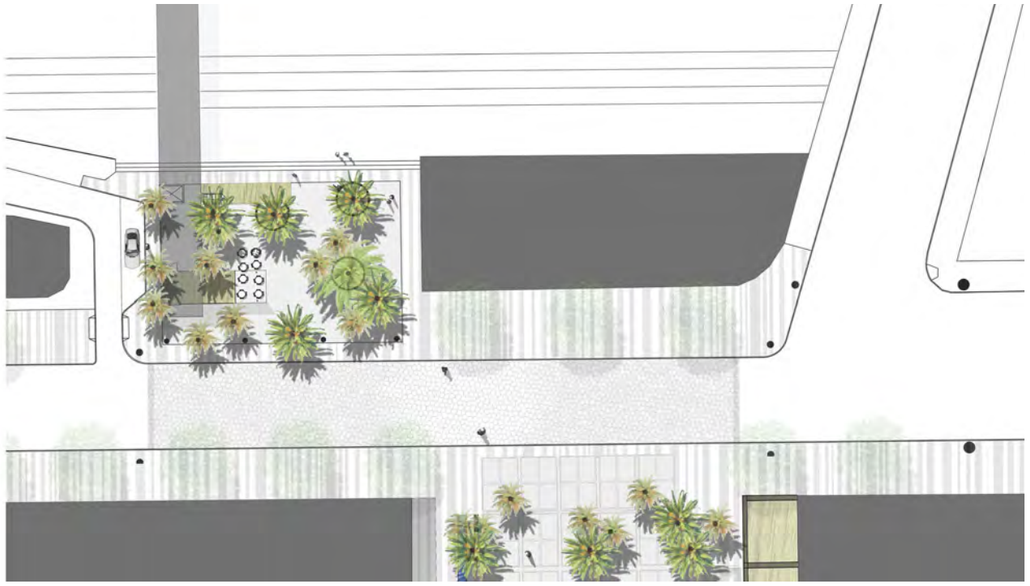
Long section - Raised Lawns

The design considers the Civic Station forecourt and Wheeler Place as a unified entity encouraging pedestrian linkages from Civic Park through to the Honeysuckle harbour foreshore. This connection is emphasised by continuing the informal planting style of the surrounding open space areas.

A new pedestrian rail bridge facilitates access across the railway line. Its strongly expressed end façade works as a landmark and helps orientation. The station forecourt is programmed for pulses of pedestrian activity. The arrangement of ground plane elements allows ease of access to the station platform, while creating areas for seating and passive recreation. Structures such as the kiosk provide an anchor for waiting travellers as do the seating elements positioned around the base of palm clusters. A “kiss and ride” set down area accomodates the need for integrated transport. To improve user amenity a lightweight roof structure is integrated into the rail bridge and spans the length of the waiting zone. The set down zone is at road grade and is diffrentiated from the carriageway through the use of different materials. Different materials are also used to distinguish the station forecourt from the Hunter Street footpath to indicate its function as an active hub.

The station forecourt and Wheeler Place are connected via a full width pedestrian crossing which links the two spaces using common paving details. The generous width of the crossing allows flexibility of pedestrian movement direction. The entry into Wheeler Place is indicated by an extension of the paving detail on to the Hunter Street footpath.

refer to Cluster of Palms and Bosquet proposal plans



Civic Forecourt Plan - Option Palm Cluster

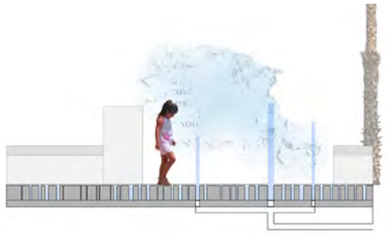
Civic Forecourt Plan - Option Bosquet

Photomontage Wheeler Place - Option Palm Cluster

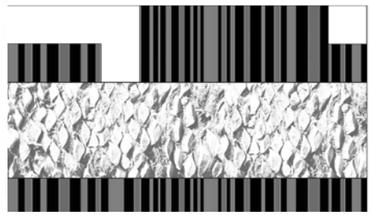
The palm clusters have a minimal footprint, which leaves the ground plane relatively uncluttered to allow for ease of pedestrian movement through Wheeler Place. Gatherings, market stalls and events can occur without obstructions. The slim vertical trunks of the palms allow views through the square and make it suitable for staged events. The movement corridor to the west of Wheeler Place is cleared of clutter and encourages a fast track link through the plaza. The link is reinforced by a shallow linear water element. The redistribution of the existing Canary Island Palms allows the significant historic façade of the Civic Theatre to be seen.

A stage is located at the southern edge of Wheeler Place, allowing movement on both sides. The timber stage can double as an attractive seating platform when events are not on. To the south of the stage at the base of the Council offices, a one-stop-shop provides another destination point. The structure flanked by a palm cluster takes a similar form to the kiosk in the station forecourt enlarged to cater for more diverse usage. The surrounding paving is upgraded and the space de-cluttered to provide a simplified forecourt to the city administration centre.

Civic Square, Cluster of Palms - Plan

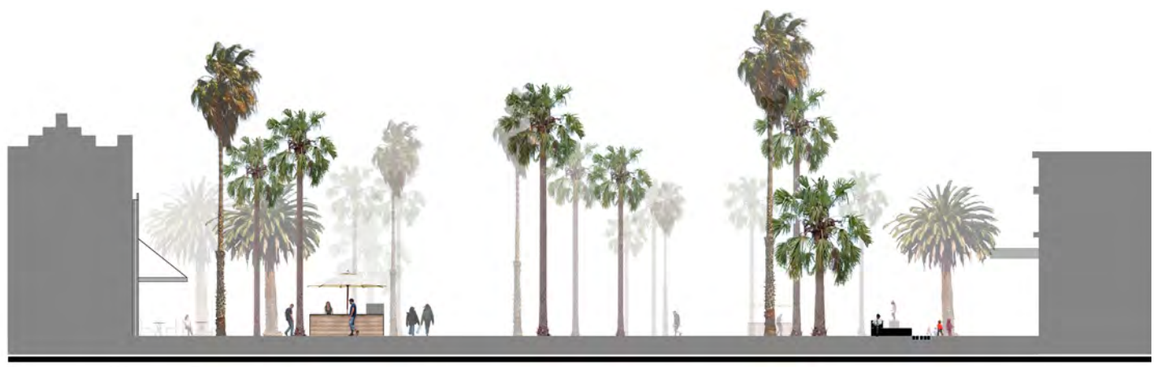


Water feature section



Water feature concept plan

Elevation - Station Forecourt



Elevation - Wheeler Place

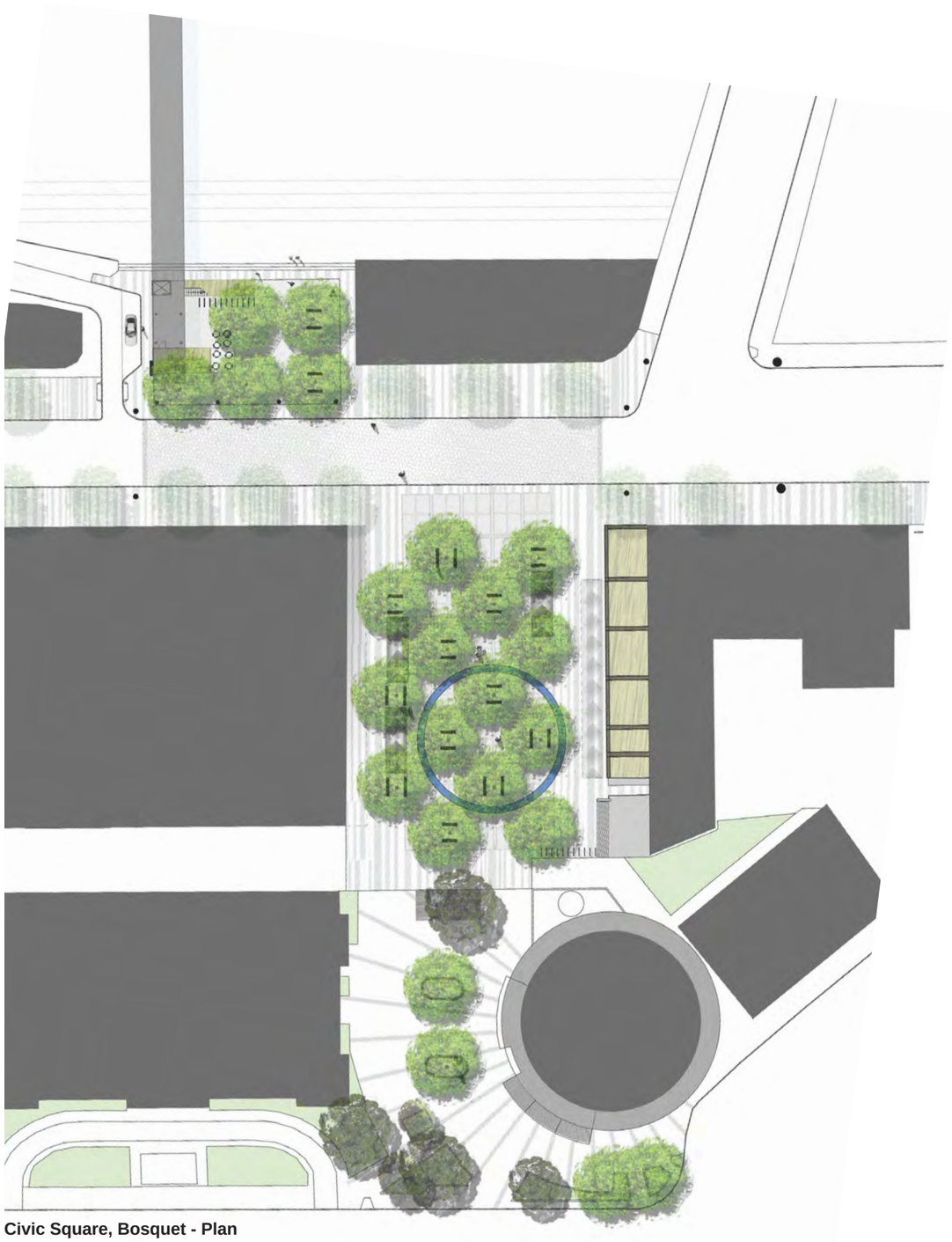
2.4.4 Civic Square - Bosquet option

A dense green canopy shades Civic Station forecourt and Wheeler Place unifying the two spaces and strengthening the link from Civic Park to the harbour foreshore. Movement corridors are pushed to the edges of Wheeler Place, while the central space becomes a passive area. The character of this space is very different from the cluster of palms. The dense canopy creates an intimate sense of enclosure. The London Plane trees are deciduous and respond to seasonal conditions, offering shade in summer and sunshine in winter. A circular water feature at grade has water jets that encourage water play. The spacing of trees allows activities such as markets to take place within Wheeler Place, offering a more comfortable user experience than the current unshaded paved area.

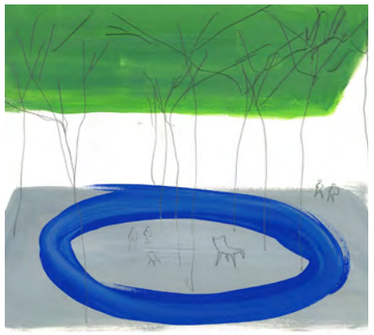
A timber stage is provided around the existing mature trees as for the cluster of palms option. The one-stop-shop is located in the south-east corner of the plaza in the Fred Ash building at the base of the council offices, providing a community anchor for Wheeler Place.

The paving to the forecourt of the council offices is simplified and supplemented with London Plane Trees to continue the bosquet theme.

Photomontage Wheeler Place - Option Bosquet



Civic Square, Bosquet - Plan



Elevation - Station Forecourt

Elevation - Wheeler Place

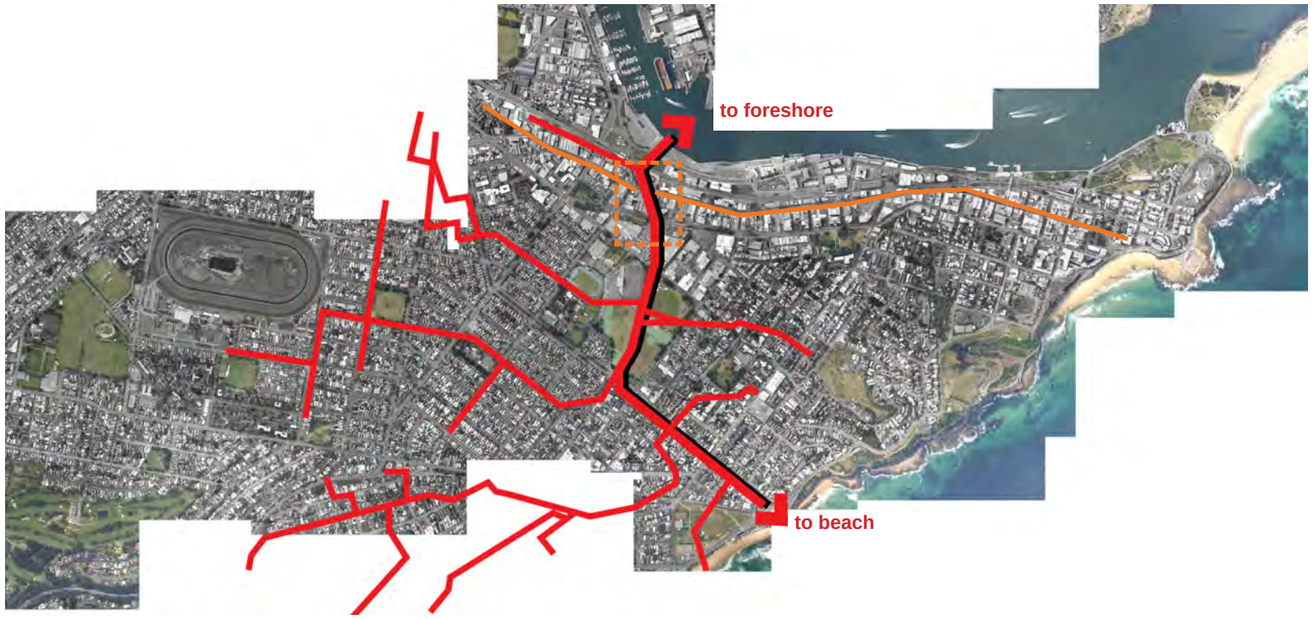
Photomontage Civic Forecourt - Option Bosquet

Impression Cottage Creek - Option Bridges

2.5.1 Cottage Creek context and options

The vision for Cottage Creek is to transform the existing stormwater canal into a link for pedestrian and cyclist movement. The creek when considered in its wider context provides a connection from beach to harbour. Within the study area Cottage Creek is heavily constrained within the urban fabric of the city.

Within the perimeter of Cottage Creek canal easement there is a corridor of voids or “in-between spaces” which are awkwardly nestled between the edge of the canal and the urban fabric. Two options have been envisioned for the corridor that look at different ways of providing a connection across the canal and create an open space network in the west end. “The Cap” option creates a linear park while “The Bridge” option creates linkages utilising the in-between spaces.



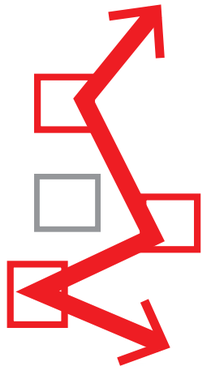
Connectivity

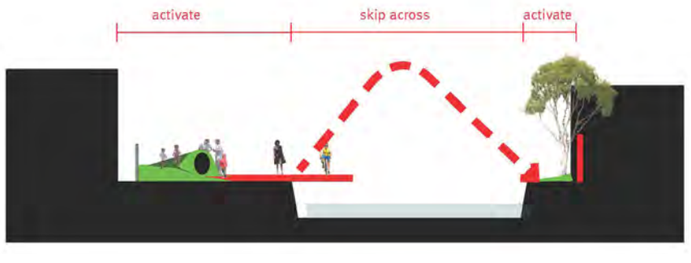
Option Bridge

Activate and integrate void space

The concept aims to link the “in-between” spaces that are located along the canal through a series of bridges. The pocket spaces where the bridges touch down become points of destination, areas that are programmed and aimed at suggesting activity. Other spaces that cannot be activated or connected become areas for planting, increasing habitat value.

Constraint: Land acquisition required.



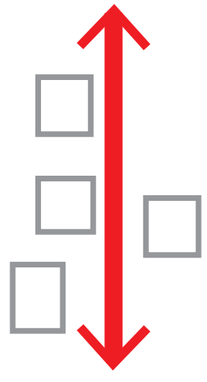


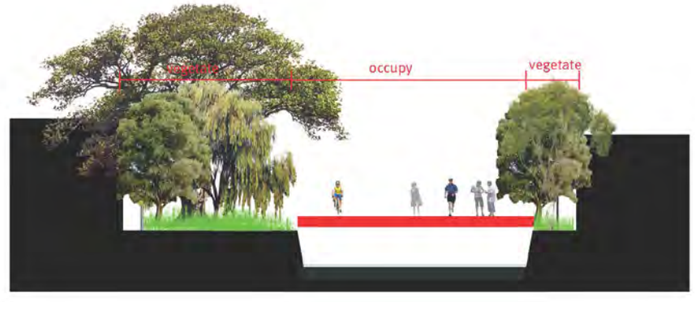
Option Cap

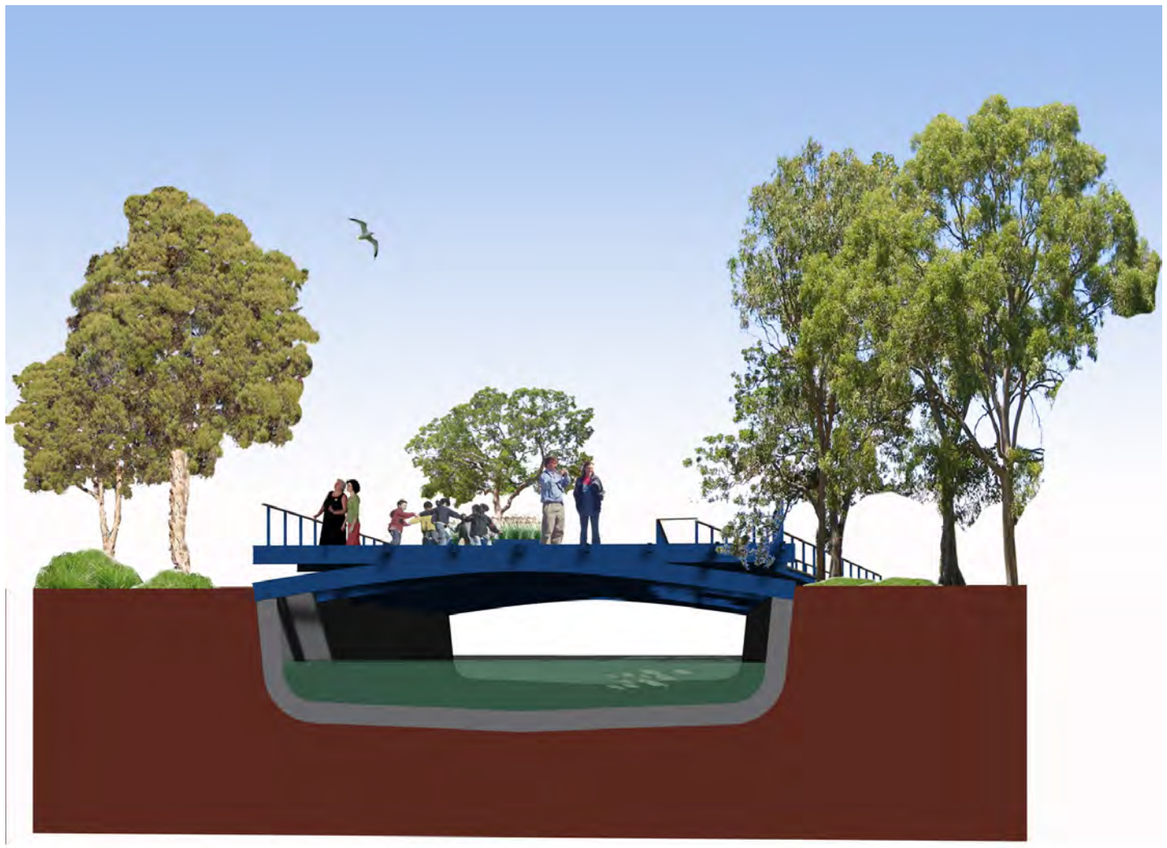
Create linear park

The capping option is designed to maximise user space while allowing flood waters to move through a permeable structure. In this concept the cap sits above the 1:100 year flood level (extreme event scenario). The structure becomes a conduit for pedestrians and cyclists providing activity and spaces for repose. The in-between spaces along the canal edge can be revitalised by dense planting. In effect this option emphasizes the linear nature of the corridor, creating an intimate and human scale park and habitat for flora and fauna.

Constraint: Cost intensive engineering solution

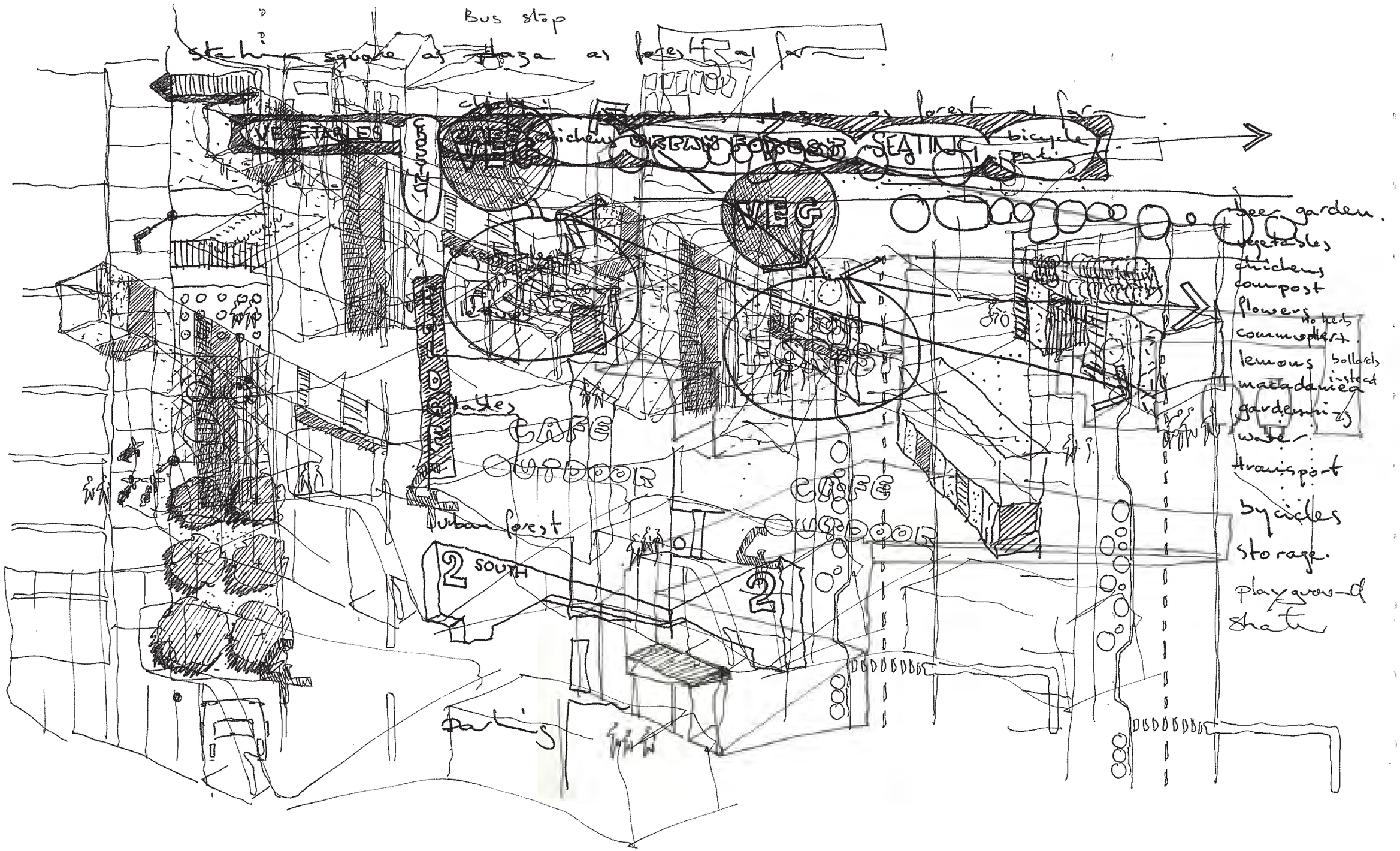


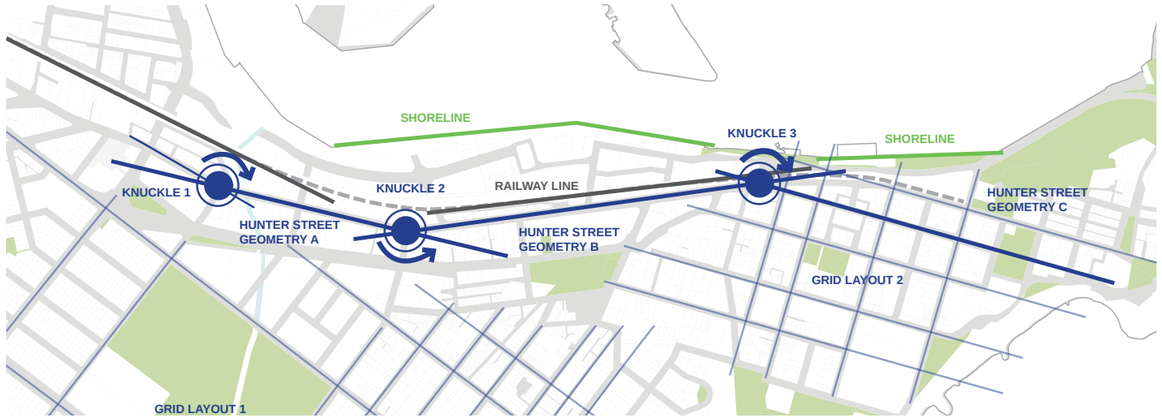




Impression Cottage Creek - Option Cap

Part 3:
Appendix


Bus stop
VEGETABLES
SEATING
bicycle
VEG
CAFE
OUTDOOR
urban forest
2 SOUTH
2
CAFE
OUTDOOR
beer garden.
vegetables
chickens
compost
flowers
herbs
commonplace.
lemons
bollards
instead
macadamias
gardening
water
transport
bycicles
storage.
playground
skate



Geometries

The geometry of Hunter Street pivots in response to offset alignments of subdivision patterns, the harbour foreshore and the rail line. As a consequence Hunter Street changes alignment a number of times along its length.

The east end retains it original subdivision pattern.

Hunter St

Bus stop

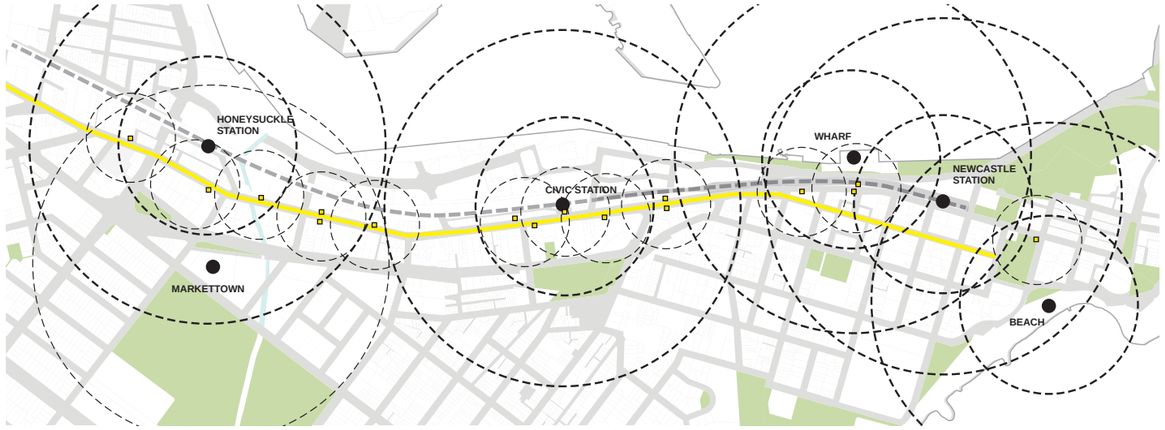
Station / Destination

Walking Distances

r=100 m

r=250 m

r=500 m



Walking Distances

Hunter Street is well serviced by public transport, with rail and bus services.

Public transport generates activity at the rail station and at bus stops. The proximity to public transport and the existing activity at stations and bus stops is a catalyst for revitalisation of the city centre.

Newcastle Cycling Strategy & Action Plan

On road - existing route

Off road - existing route

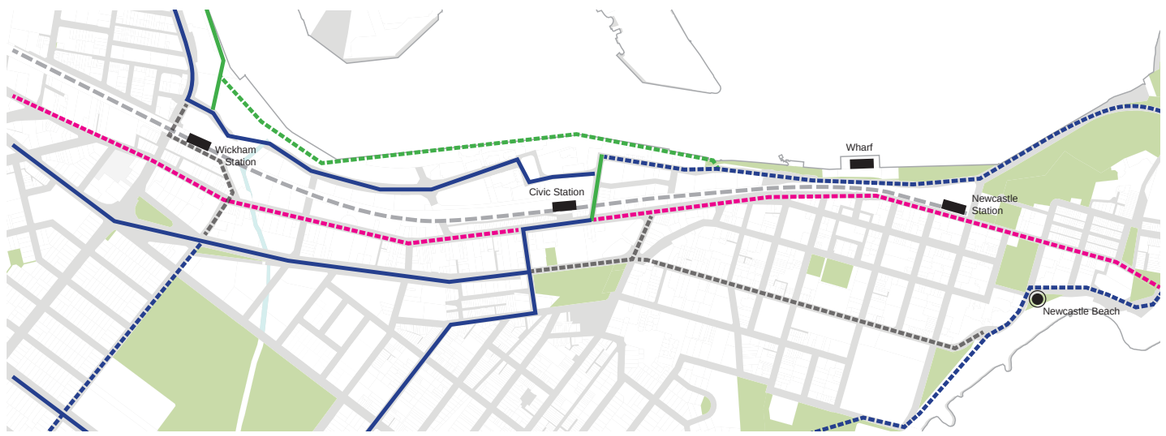
On road - proposed route

Off road - proposed route

Hunter Street Renewal

Proposed route

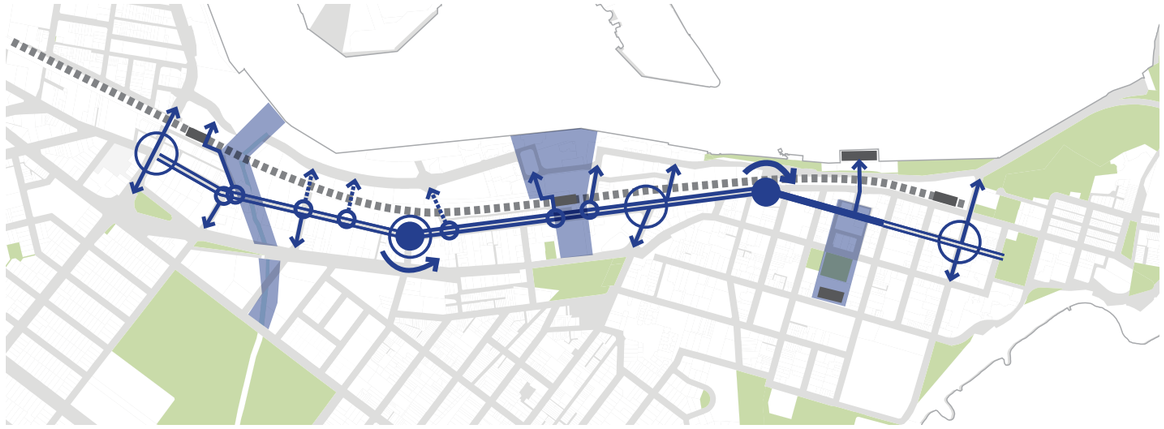
Route connections



Cycling

Being relatively flat, the majority of Hunter Street is suitable for cycling as an alternative transport mode. The current dominance of motor vehicles limits perceptions of safety and space availability. Current routes are not clear and connections to the context are missing or infrequent.

- Hunter St two-way traffic
- Hunter St Mall one-way traffic
- Existing cross connection
- Opportunity for future cross connection
- Node
- Knuckle
- Connect to landscape / city



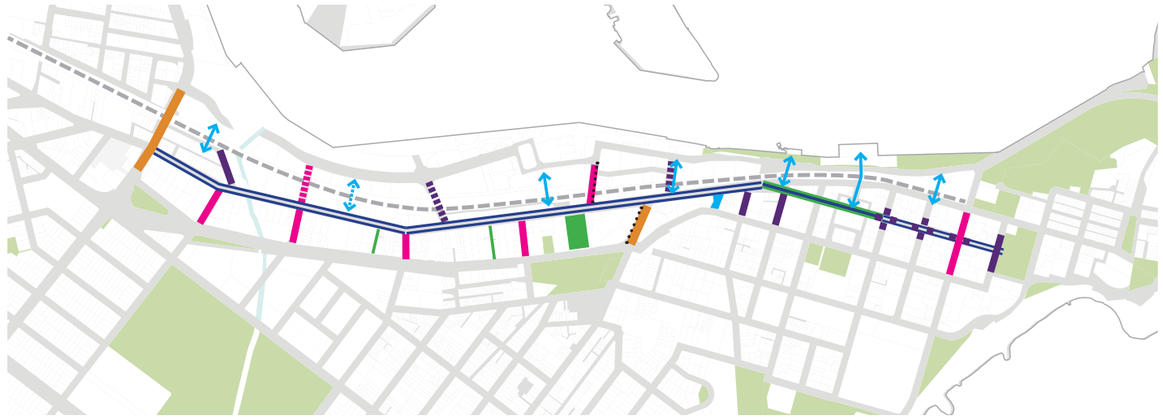
Connectivity north-south

The railway line is a barrier to pedestrian and vehicular movement.

There is a potential to improve existing and create new connections.

An important consideration is to reconnect to the city and to the landscape, particularly the harbour foreshore.

- Major street crossing
- Secondary street crossing
- Minor street crossing
- Pedestrian priority
- Pedestrian only
- Existing pedestrian bridge link
- Opportunity for medium term pedestrian bridge link
- Cycle route
- Opportunity for long term at grade connections

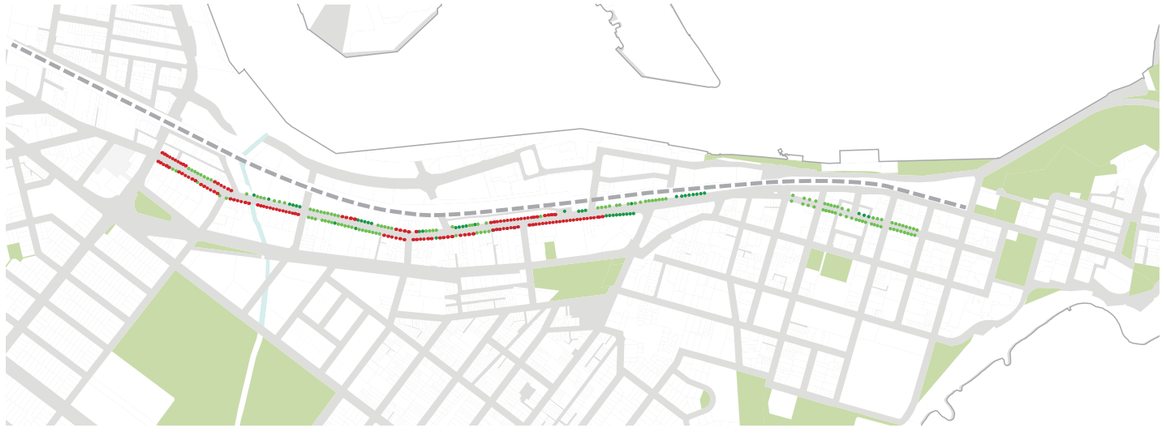


Side street crossings and connections

Intersections with side streets provide opportunities to improve legibility and pedestrian priority along Hunter Street. Secondary street crossing initiatives could include footpath extensions to improve pedestrian movements along Hunter Street.

Minor street crossing initiatives include providing flush thresholds where footpath is extended over minor street intersection.

- existing trees
- no awnings, opportunity for street tree planting
- existing awnings limiting opportunity for tree planting



Street tree planting

The extent of awnings presents a challenge to tree planting within the footpath. There would need to be footpath widening or footpath extension within the parking lane for additional tree planting to be viable.

Tree planting configuration should also consider heritage building facades.

Glebe Point Rd, Glebe

2 lanes traffic (bus route)

2 lanes dedicated parking

On-road cycling (mixed traffic road)

Predominantly retail frontage

Initiatives noted:

- footpath widening at intersection, no slip lane for left-turn
- wide footpath allows for ground floor activity to spill out
- street tree planting within footpath widening on intersections.
- street tree planting within footpath where no awnings present.
- Use of smart poles to limit items in verge

Majors Bay Rd, Concord Village

2 lanes traffic (bus route)

2 lanes dedicated parking (angled)

Bike lane interrupted in village centre

Retail frontage

Initiatives noted:

- Central planted median
- Carriageway reduced to single lane in each direction
- Wide footpath allows for ground floor activity to spill out and planted buffer to carriageway.
- Street tree planting within footpath between outdoor dining activity zones

Rouse Hill Town Centre

2 lanes traffic

2 lanes dedicated parking

No cycling in the centre

Active frontage (retail/commercial)

Initiatives noted:

- Carriageway reduced to single lane in each direction
- Wide footpath allows for outdoor dining as well as pedestrian and cycle facilities.
- Pedestrian crossing threshold treatment.
- Continuous awnings, trees in parking zones at carriageway level.

Church St, Parramatta

2 lanes traffic (bus route)

No on-street parking within dining zone

No cycling

Dedicated dining zone, active frontage

Initiatives noted:

- carriageway reduced to single lane in each direction, still bus route.
- wide footpath allows for ground floor activity to spill out and planted buffer to carriageway, circulation zone along building facade
- street tree planting within footpath between outdoor dining activity zones
- on street parking severely limited within dining zone.
- WSUD initiative associated with street trees and porous paving in parking bays.

Redfern Street, Redfern

2 lanes traffic (bus route)

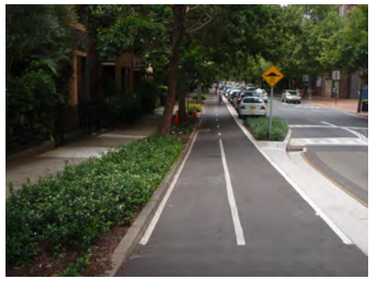
2 lane dedicated parking

On-road cycling (mixed traffic road)

Mixed frontages (retail / residential)

Initiatives noted:

- Footpath widening at intersection
- Side footpath allows for ground floor activity to spill out and pedestrian facilities
- Street tree planting within footpath widening on intersections.
- Street tree planting within footpath where no awnings present.
- Use of smart poles to limit items in verge.



Bourke Street, Surrey Hills

2 lanes traffic

No bus route (Surrey Hills section)

2 lane dedicated parking

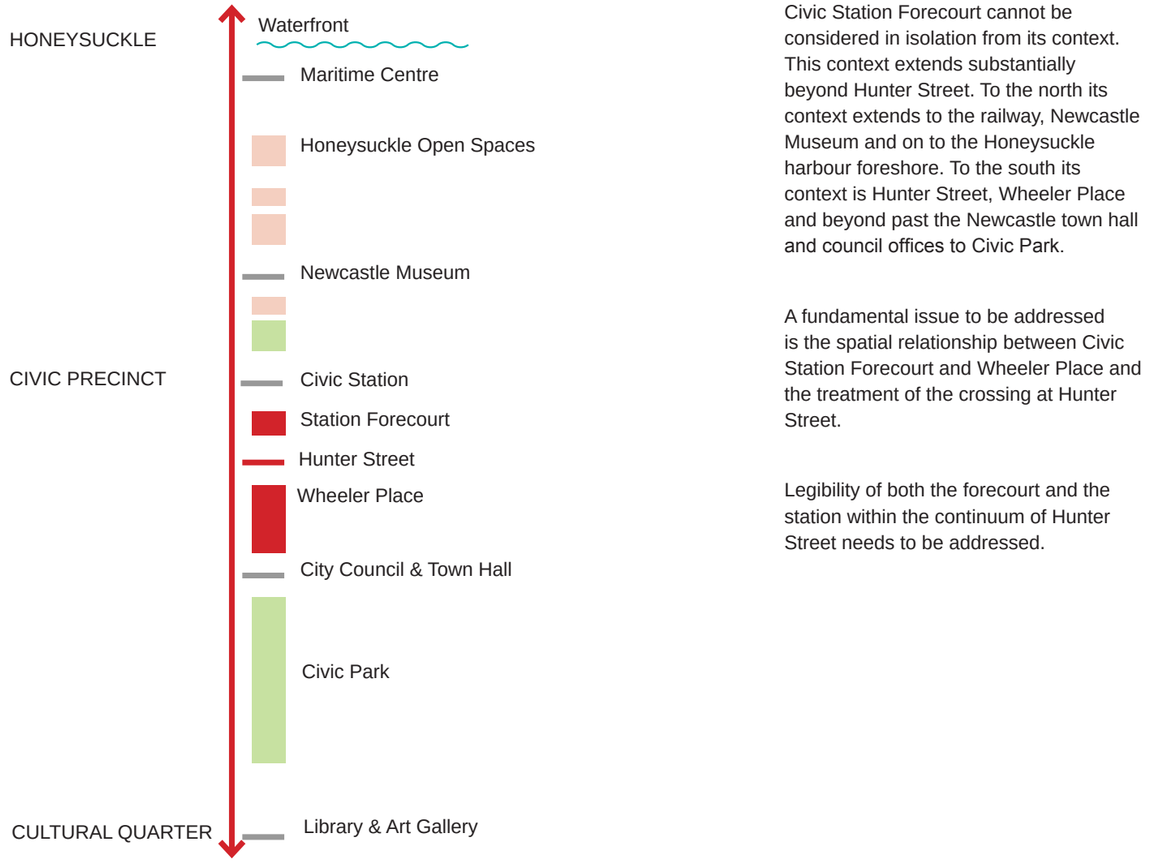
Separate cyclepath (dual direction)

Predominantly residential frontage

Initiatives noted

- Footpath widening and diversion of cycle path at intersection with major roads
- Shared surface at intersection with local roads
- Street tree planting within footpath along planting dividing strip
- Change in surface material on cycle path when approaching intersections and pedestrian crossings
- Speed bumps and frequent raised pedestrian zebra crossing to promote pedestrian priority

Context plan

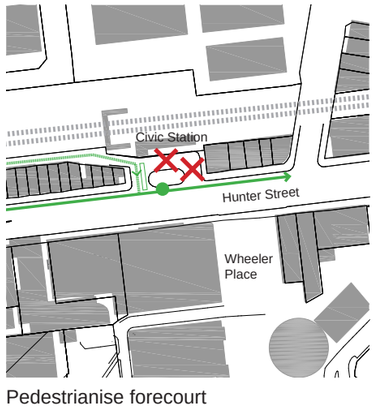


Civic Station Forecourt cannot be considered in isolation from its context. This context extends substantially beyond Hunter Street. To the north its context extends to the railway, Newcastle Museum and on to the Honeysuckle harbour foreshore. To the south its context is Hunter Street, Wheeler Place and beyond past the Newcastle town hall and council offices to Civic Park.

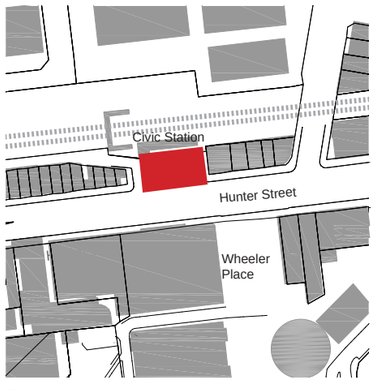
A fundamental issue to be addressed is the spatial relationship between Civic Station Forecourt and Wheeler Place and the treatment of the crossing at Hunter Street.

Legibility of both the forecourt and the station within the continuum of Hunter Street needs to be addressed.

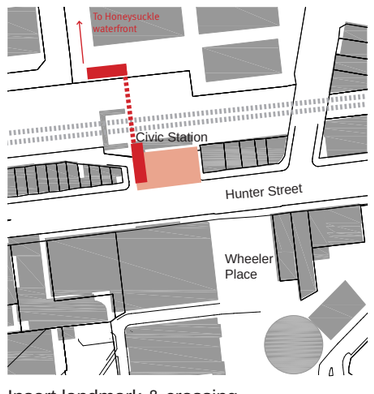
Design parameters



Pedestrianise forecourt



Create square



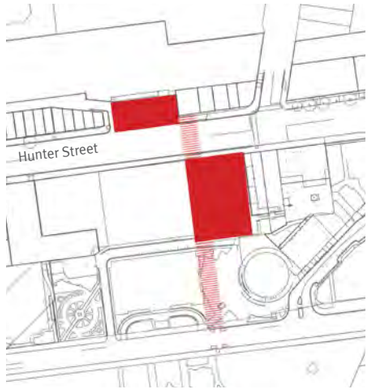
Insert landmark & crossing

Extend footpath

Cross Hunter Street

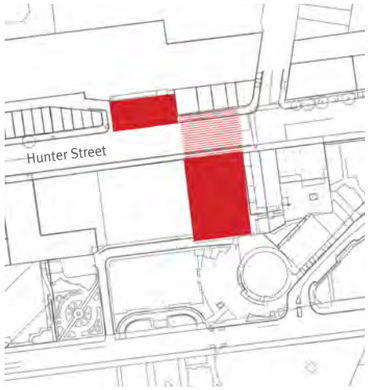
OPTION 1

Wheeler Place Spine



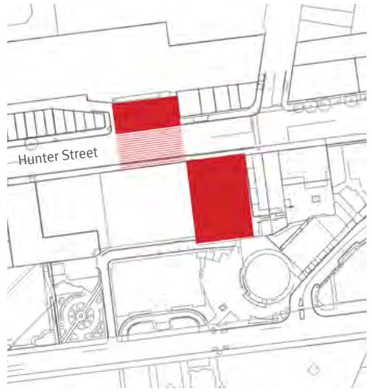
OPTION 2

Wheeler Place Extension



OPTION 3

Station Forecourt Extension

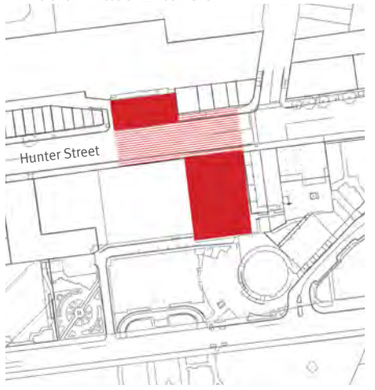


OPTION 4

Station Forecourt Extension &
Wheeler Place Spine

OPTION 5

Station Forecourt &
Wheeler Place Extension



(-) Minimum Impact on Hunter Street

Maximum impact on Hunter Street (+)

PRO

- Creates a clear linear spine for pedestrian movement
- Most cost effective

CON

- No direct crossing of Hunter Street from Station Forecourt
- Focus point of axis is corner block on Station Forecourt (average architectural quality)
- No integration with Hunter Street
- Does not cater for movement from station west

PRO

- Emphasis on Wheeler Place
- Integration of Hunter Street

CON

- No direct crossing of Hunter Street from Station Forecourt
- Focus point of axis are blocks opposite Wheeler Place (average architectural quality)
- Both spaces only connected via Hunter St northern footpath
- Does not cater for movement from station west

PRO

- Emphasis on Station Forecourt
- Integration of Hunter Street
- Civic Theatre frames extended Station Forecourt

CON

- No continuous axis across Hunter Street from Wheeler Place
- Both spaces only connected via Hunter St southern footpath

PRO

- Emphasis on Station Forecourt,
- Integration of Hunter Street
- Civic Theatre frames extended Station Forecourt

CON

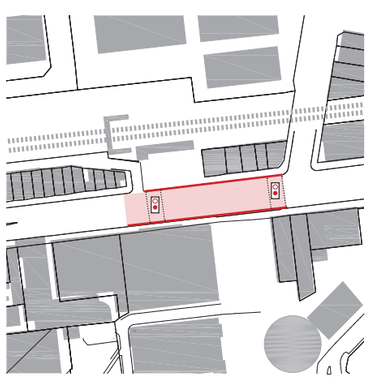
- Focus point of axis is corner block on Station Forecourt (average architectural quality)
- Wheeler Place only partially connected

PRO

- Station Forecourt, Wheeler Place and Hunter Street crossing perceived as one space

CON

- Most cost intensive
- Biggest impact on Hunter Street



OPTION 1

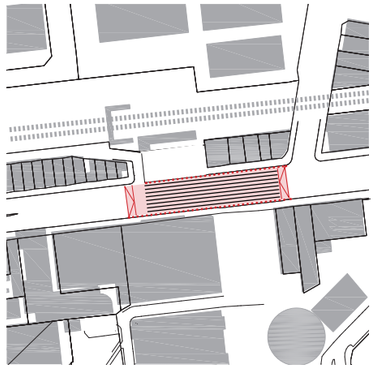
change in material, kerb threshold to be retained

localised pedestrian traffic signals

OPTION 2

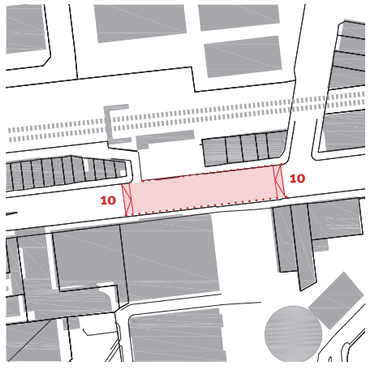
change in material, kerb threshold to be retained

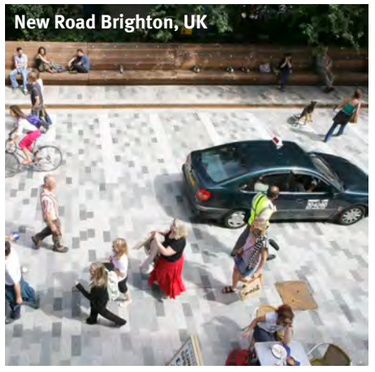
localised pedestrian crossings



OPTION 3

raise road, transform entire length into pedestrian crossing





OPTION 4

shared traffic zone, road raised

The street is open to one-way traffic travelling east to west. The four western blocks are a share-way with some limited parking. The eastern most block is a one-way street not a share way. This portion of Hunter Street is much narrow than the section further west.

The City of Newcastle Council has recently upgraded the western-most block of Hunter Street Mall.

The streetscape treatment of the middle blocks is dated and cluttered with seats, signs and other furniture. The various market structures add to the plethora of items within the space making its appearance cluttered and diminishing legibility.

There are footbridges that connect the street to the foreshore and visual connections to Newcastle landmarks in close proximity to Hunter Street Mall but these are not clearly visible from in the street.

The differing materials and varying configuration of the street contribute to the overall lack of cohesion and poor legibility.

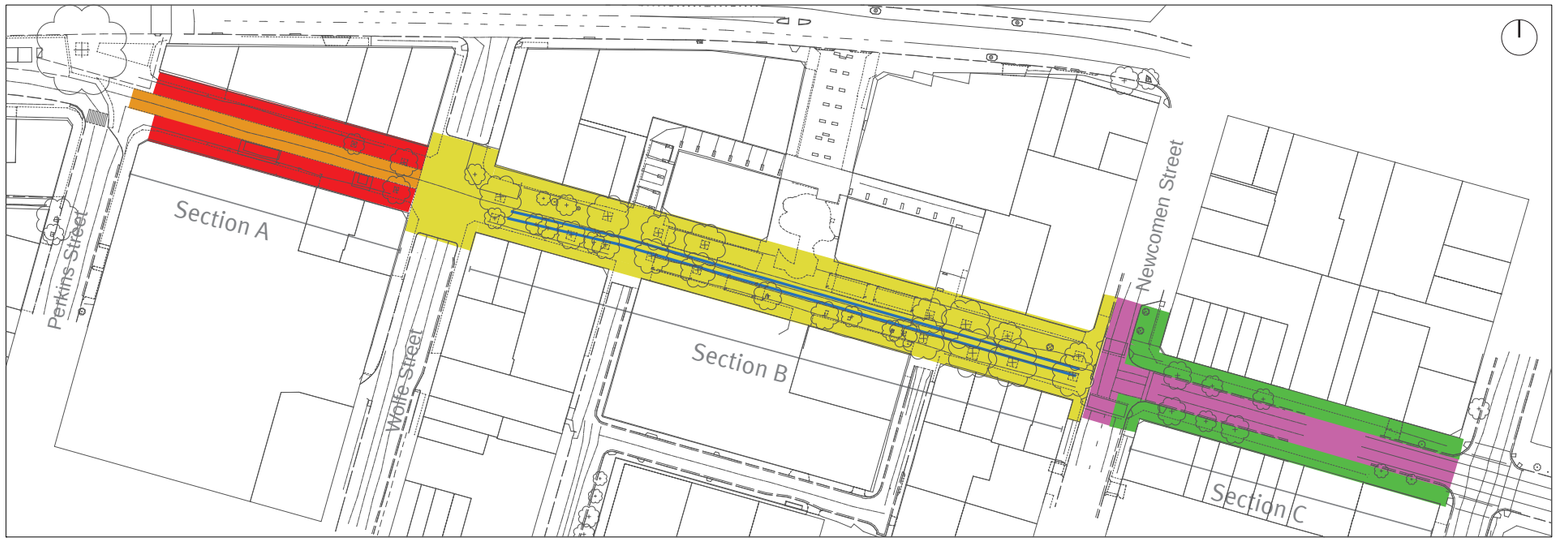
Ground Treatment

Observations

- condition varies,
- Section B and C: low to moderate quality, dated materials
- Section A: high quality natural stone recently upgraded

Opportunities

- Limit variations in materials and promote uniform treatment
- Consider vehicular grades
- Consider treatment at intersections



Observations - ground treatment

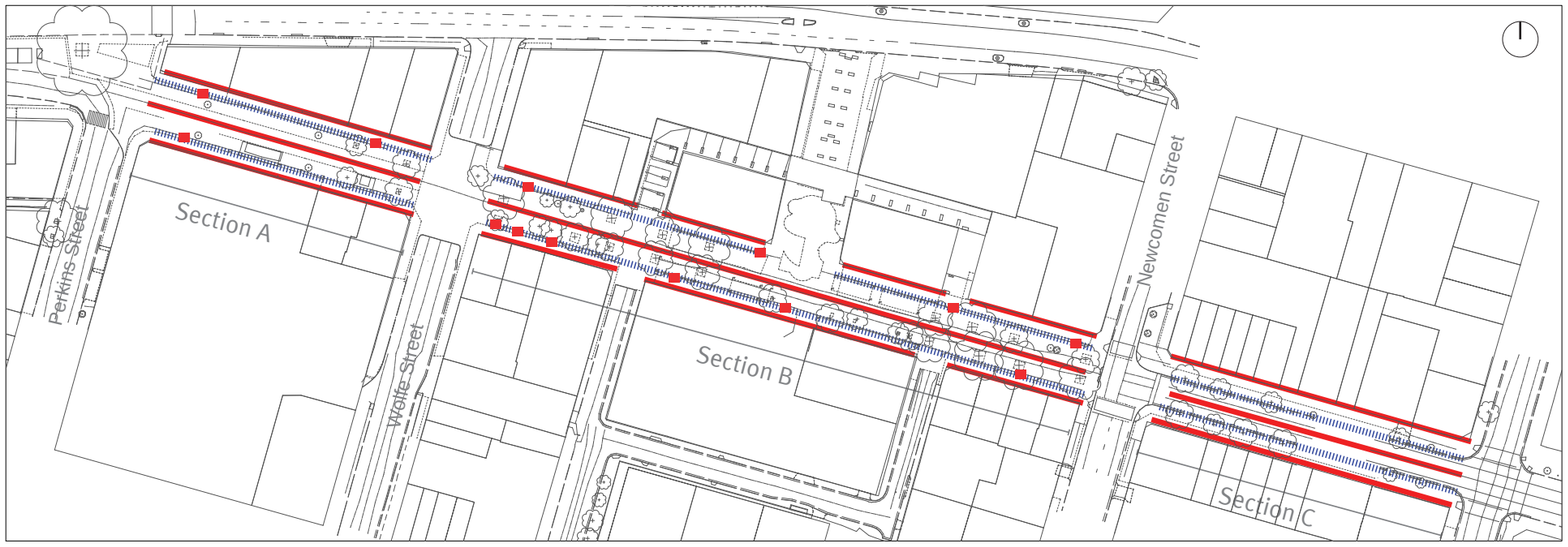
Drainage

Observations

- Conventional stormwater management: Water runs from road crest and shop frontages into drainage channels on each side.
- Pits are located parallel and at irregular intervals but along drainage line.
- Pit grate finishes vary depending on road section.

Opportunities

- Delineation: Drainage line to delineate usage zone, Change of material along drainage line
- Landscape feature: Drainage to become art feature, Design drainage line as an open channel.
- WSUD: Tree Pits retrofitted with bioretention capabilities, existing drainage channel's feed into tree pits.



Observations - drainage

Tree planting

Observations

- Species: Plane trees, Chinese Tallowood, all exotic and deciduous
- Condition: vary from mature to immature, some only planted recently
- some damaged or in poor health

Opportunities

- Accentuate individual trees through ground detail.
- Frame trees and create opportunities for seating and other passive activities.
- Create a regularity, either formality or informality.
- Give the tree pits an ecological function, WSUD treatment
- Treat the base of trees as entities that harbour plant life.

Observations - street tree planting

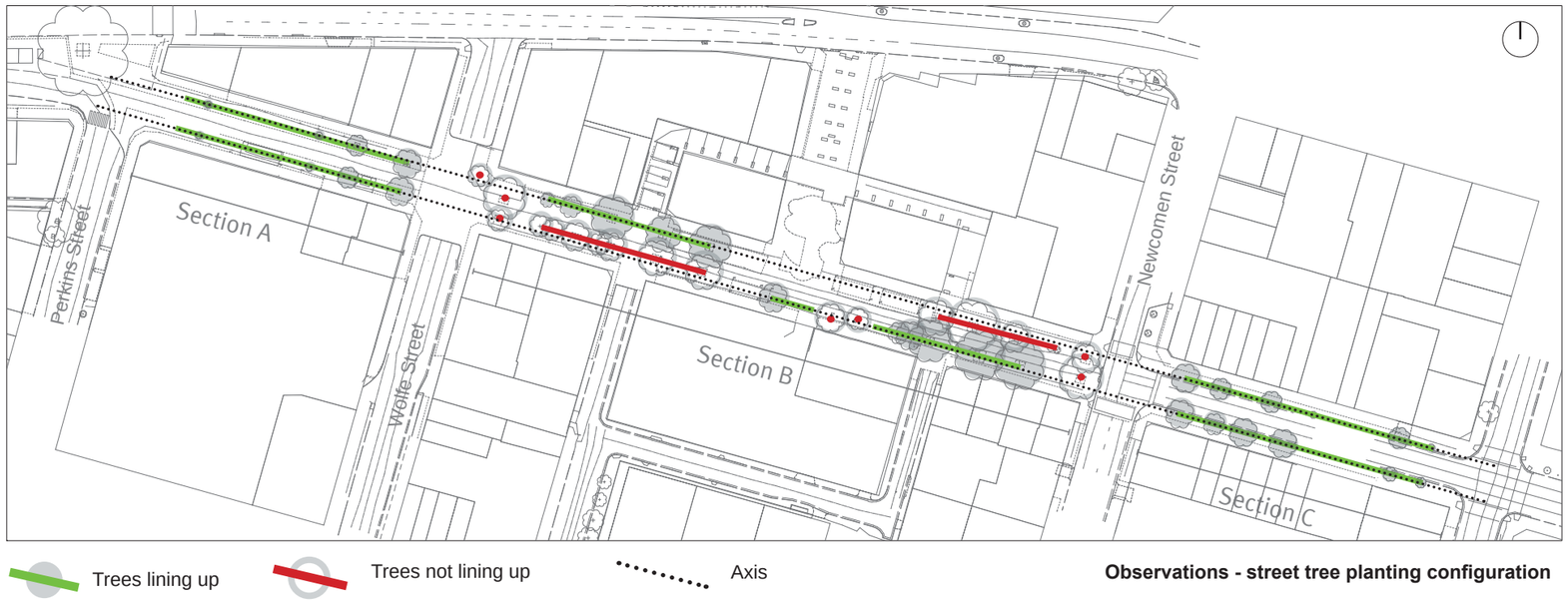
Tree planting configuration

Observations

- no formal configuration
- quality, species and spacing vary
- tree trunks not lining up

Opportunities

- Emphasise the avenue concept, create a formality which directs and orientates.
- Accept the fact that the avenue is not linear, treat the trees as individual objects that float upon a unified ground plane.



Observations - street tree planting configuration

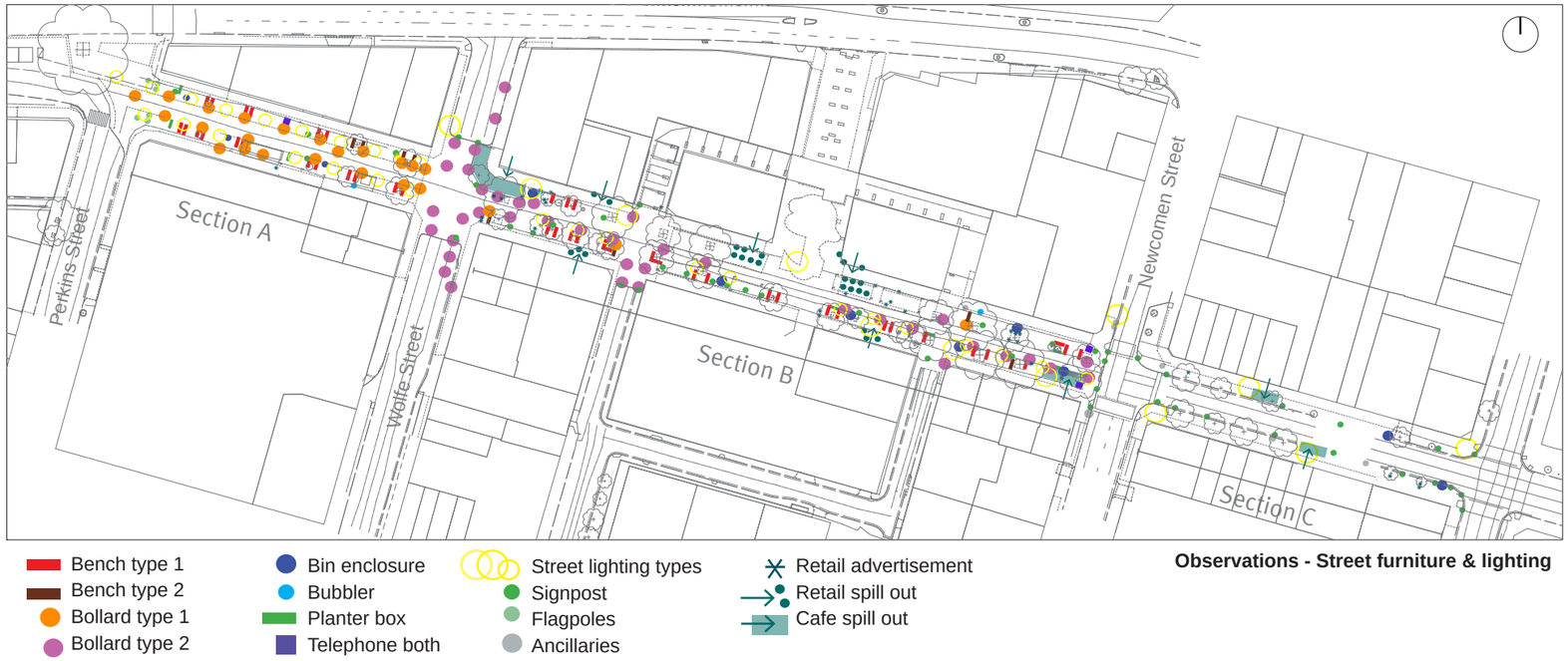
Street furniture & lighting

Observations

- visual clutter
- inconsistent types and spacing for street furniture elements and signage
- seating perpendicular to way of travel, predominantly along southern side (middle section)
- lighting posts upgraded

Opportunities

- Reduce clutter
- Promote uniform and consistent range of street furniture
- Define furniture zone
- Cluster or evenly distribute seating
- Make use of furniture elements, lighting columns, tree planting to delineate vehicular route and parking



Observations - Street furniture & lighting

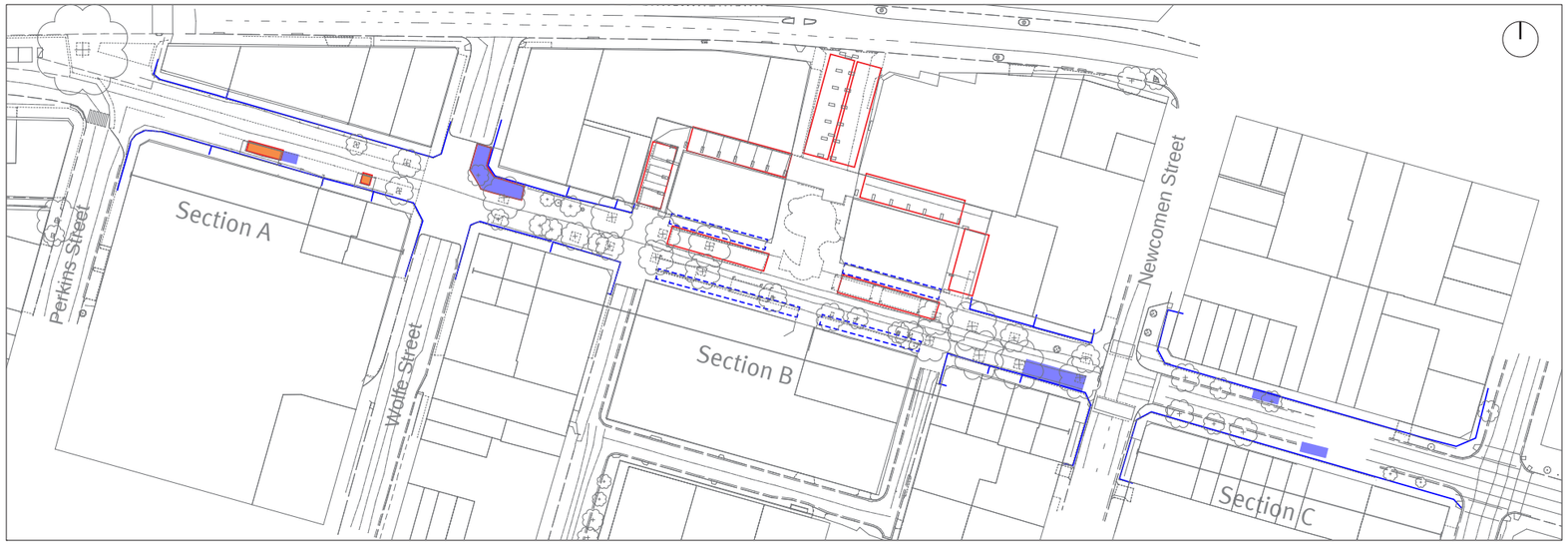
Structures

Observations

- Market structures add to the clutter.
- Permanent structures create internal spaces that are devoid of activity most of the time, which is contradictory to their purpose to house activity.
- Structures are large scale, which contrasts with the finer grain of Hunter Street Mall.
- Structures obstruct views of heritage buildings.

Opportunities

- Relocate market to side lanes.
- Set design language and quality standards for any proposed structures.
- Council to provide removable shade structures for market events.

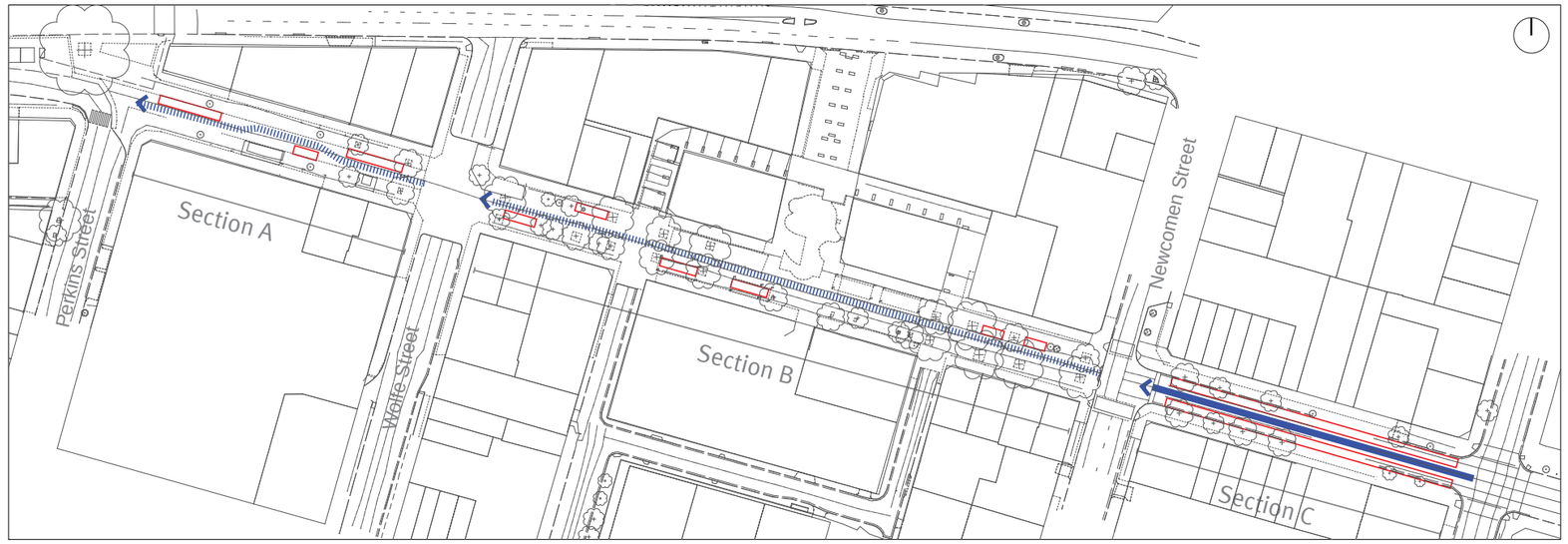


Observations - structures

Vehicular circulation & parking layout

Observations

- One-way traffic travelling east-west
- Shared zone between Newcomen and Perkins Streets.
- Inconsistent design and distribution of parking: Section A: intermittent parking bays delineated within the vehicular lane, Section B: intermittent parking bays between trees, Section C, parallel parking on both sides



Observations - parking layout

→ designated cycle lane - line marked

⇢ shared zone - no line markings

Documents Review:

City of Newcastle
DRAFT Cycling Strategy:& Action Plan (Map 1)

Newcastle City Centre TMAP 2010
Table 4.1

AUSTROADS:
Cycling Aspects of Austroads Guides (2011)

AUSTROADS
Guide to Traffic Management Part 7: Traffic Management in Activity Centres (2009)

AUSTROADS
Research Report:
Pedestrian-Cyclist Conflict Minimisation on shared paths and footpaths (2006)

AUSTROADS
Guide to Road Design Part 6a: Pedestrian and Cyclist Paths

RTA NSW Bicycle Guidelines (Version 1.2, July 2005)

Key Findings:

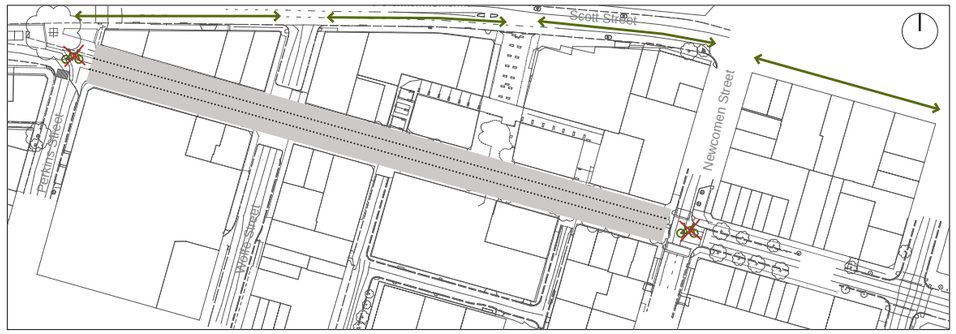
Two scenarios apply. Either pedestrians and bikes share or pedestrians and motorised vehicles share.

Precedent projects show that activity centres with increased pedestrian traffic such as malls and retail precincts usually restrict bicycle access.

Hunter Street Mall: because of the current one-way vehicular traffic flow along Hunter Street the awareness of cyclists going west to east is compromised, which might lead to conflicts between cyclists and oncoming vehicular traffic.

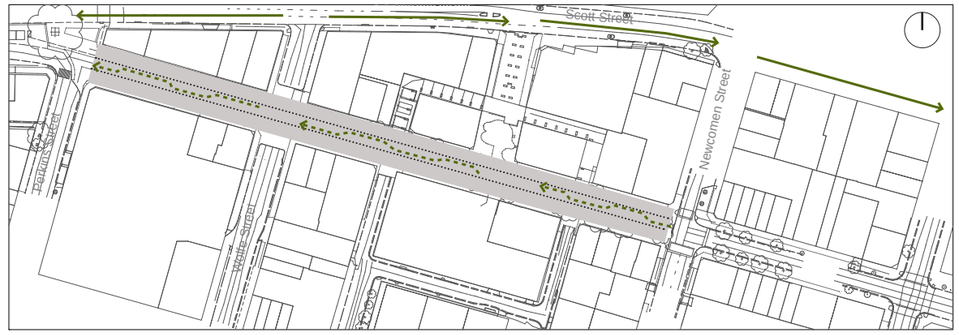
Scenario A - Preferred
cyclist to dismount

- no cycling along Hunter Street Mall
- designated off-street cycle lanes along Scott Street



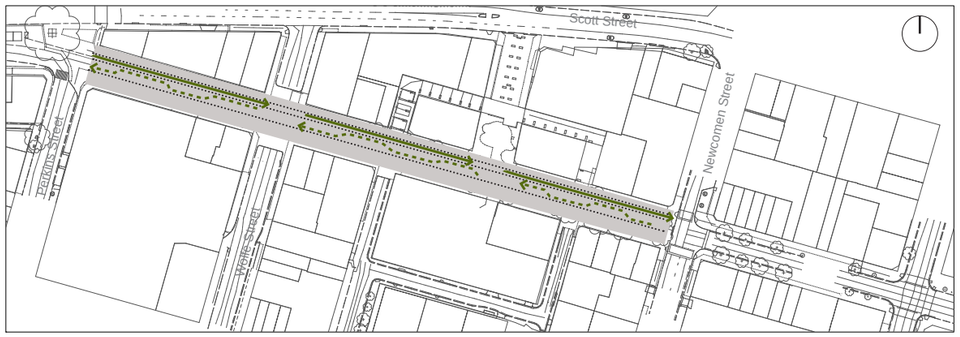
Scenario B
deviate west to east cycle route

- shared east-west cycle way along Hunter Street Mall within vehicular zone
- designated west to east cycle lane deviating along Scott Street



Scenario C
Two-way cycling along Hunter Street Mall

- east-west shared within vehicular zone, west to east as designated cycle lane



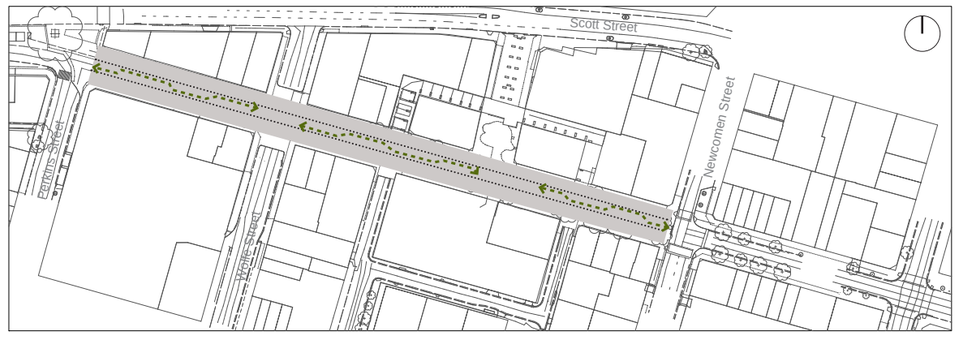
Issues - Scenario C

Strong delineation for contra-flow cycle lane required, this works against shared zone principles.

Line marked contra-flow lane might make cyclists travel faster and could create a barrier to pedestrian cross movement

Scenario D
true shared zone (pedestrians, cyclists, vehicles)

- allowing cyclists to go both ways within central vehicular zone without introducing additional line markings.



Issues - Scenario D

potential conflicts between cyclists going west to east

Hunter Street options

Three options were considered in broad terms:

Option 3 Lanes

- 2 traffic lanes, 1 clearway, cycling two-way off-street northern side, activity zone southern side
- Most flexible, greener, better human scale, generous parking

Option 2 lanes

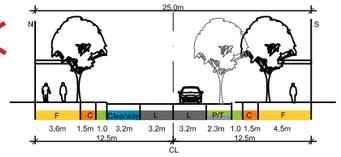
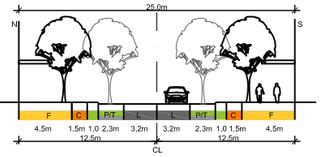
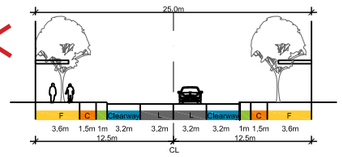
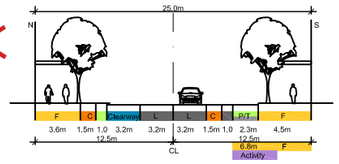
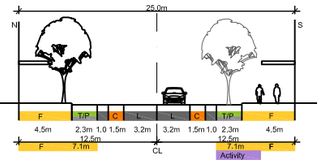
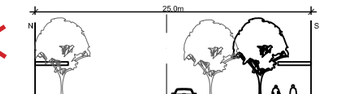
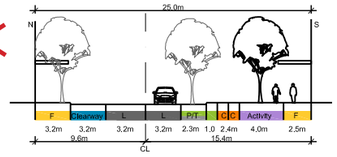
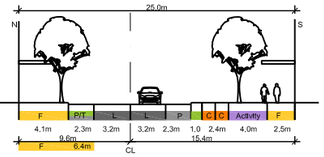
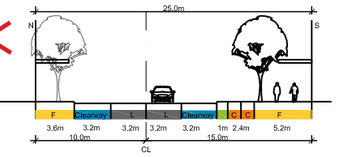
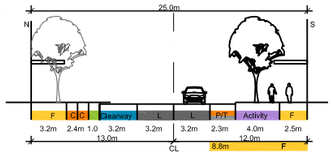
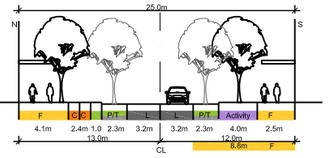
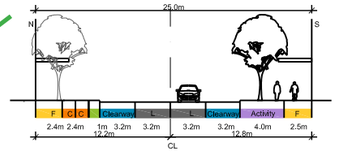
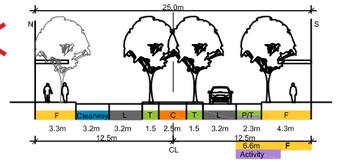
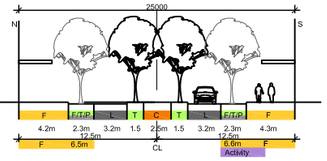
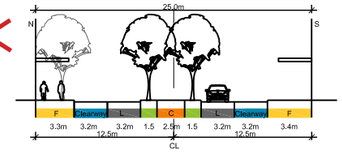
- 2 traffic lanes, 1 clearway/cycling, designated parking defined by blisters, off-street split cycling, activity zone southern side
- Most green, best human scale

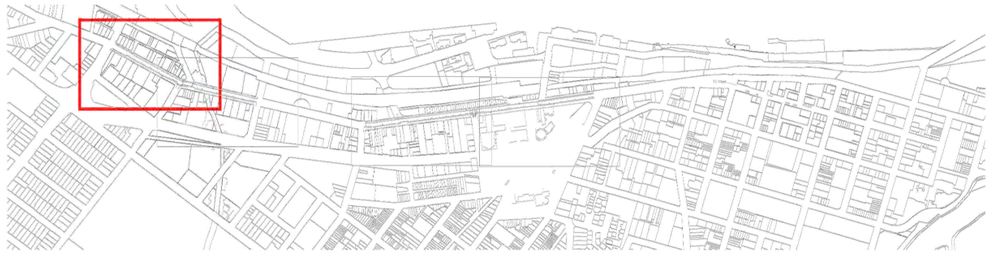
Option 4 Lanes

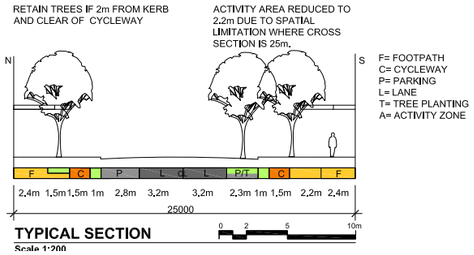
- 2 traffic lanes, 2 clearway/parking, cycling two-way off-street northern side, activity zone southern side
- Most parking, least green, least enticing for people, poor human scale, activity zone

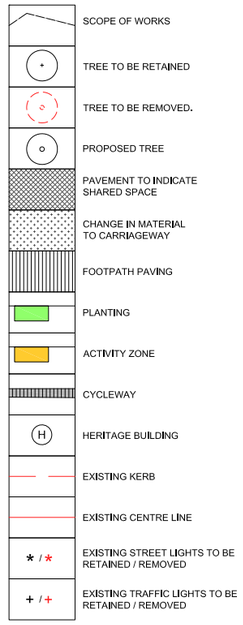
These options were then adjusted in an effort to achieve the evaluation criteria set for the project. The adjustments included:

- a shift of the road centre line (max shift 1 m)
- cycling combined
- central median with cycling

	Option 3 lanes 2 lanes vehicular 1 lane clearway 1 lane dedicated parking	Option 2 lanes 2 lanes vehicular 2 lanes dedicated parking	Option 4 lanes 2 lanes vehicular 2 lanes clearway
Split cycling symmetrical layout off-street split cycling	✗ 	✗ 	✗ 
symmetrical layout On-road split cycling	✗ 	✗ 	
asymmetrical layout off-street split cycling	✗ 	✓ 	
Dual cycling asymmetrical layout dual cycling south	✗ 	✗ 	✗ 
asymmetrical layout dual cycling north	✓ 	✗ 	✓ 
Central cycling symmetrical median	✗ 	✗ 	✗ 

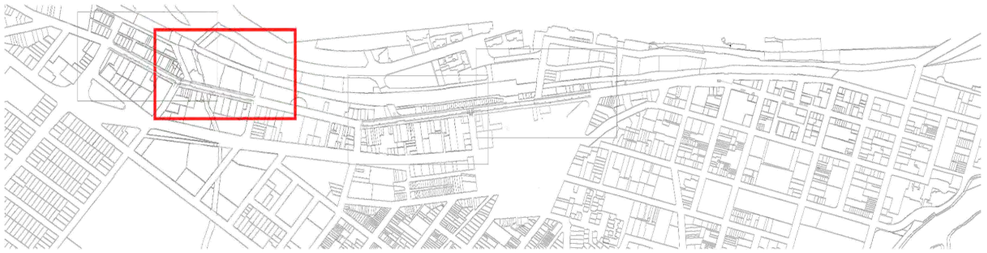


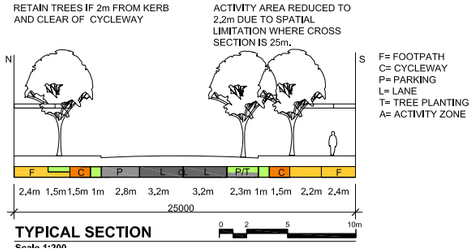


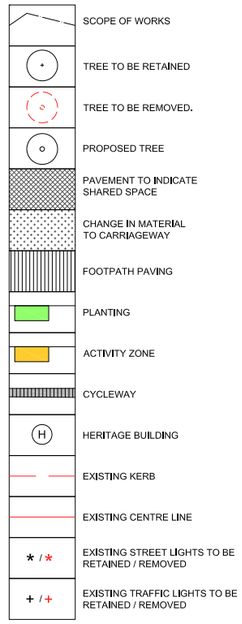


PRECINCT WEST

Section 1: Stewart Avenue - National Park Road

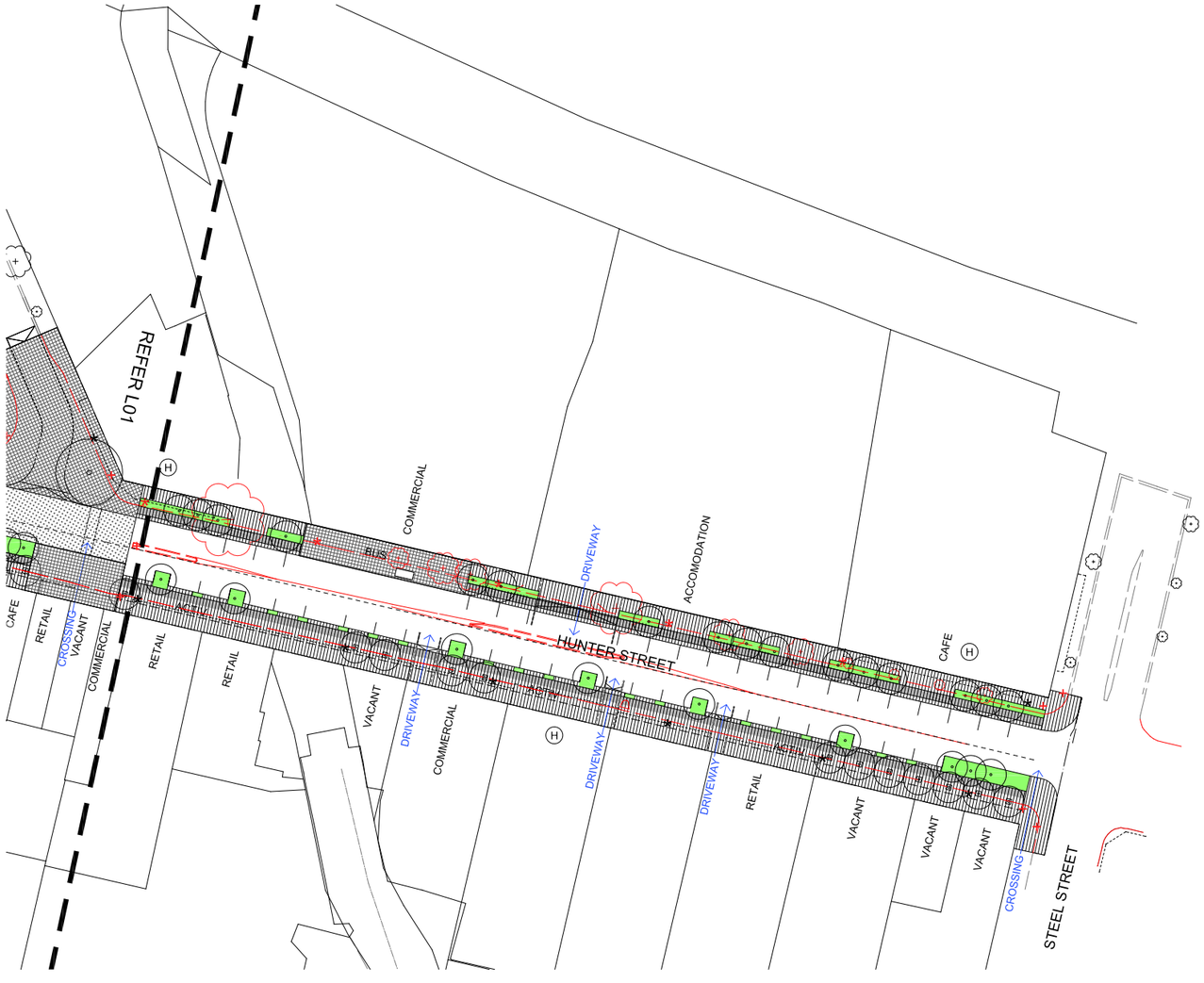


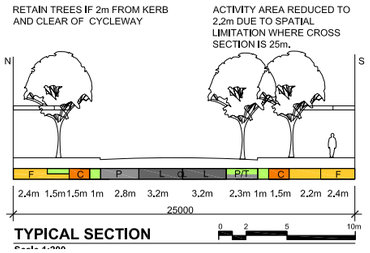


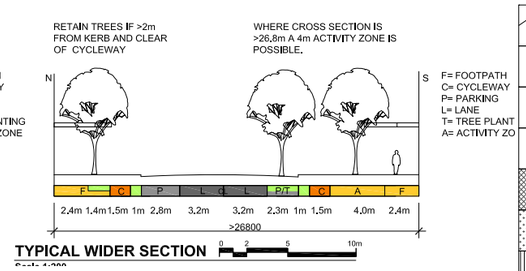


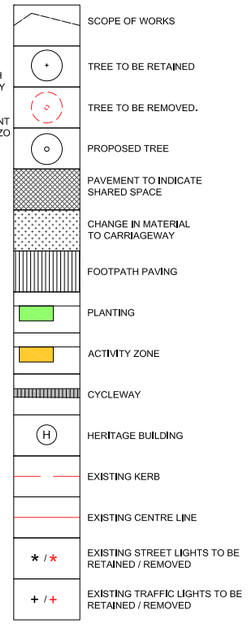
PRECINCT WEST

Section 2: National Park Road - Steel Street



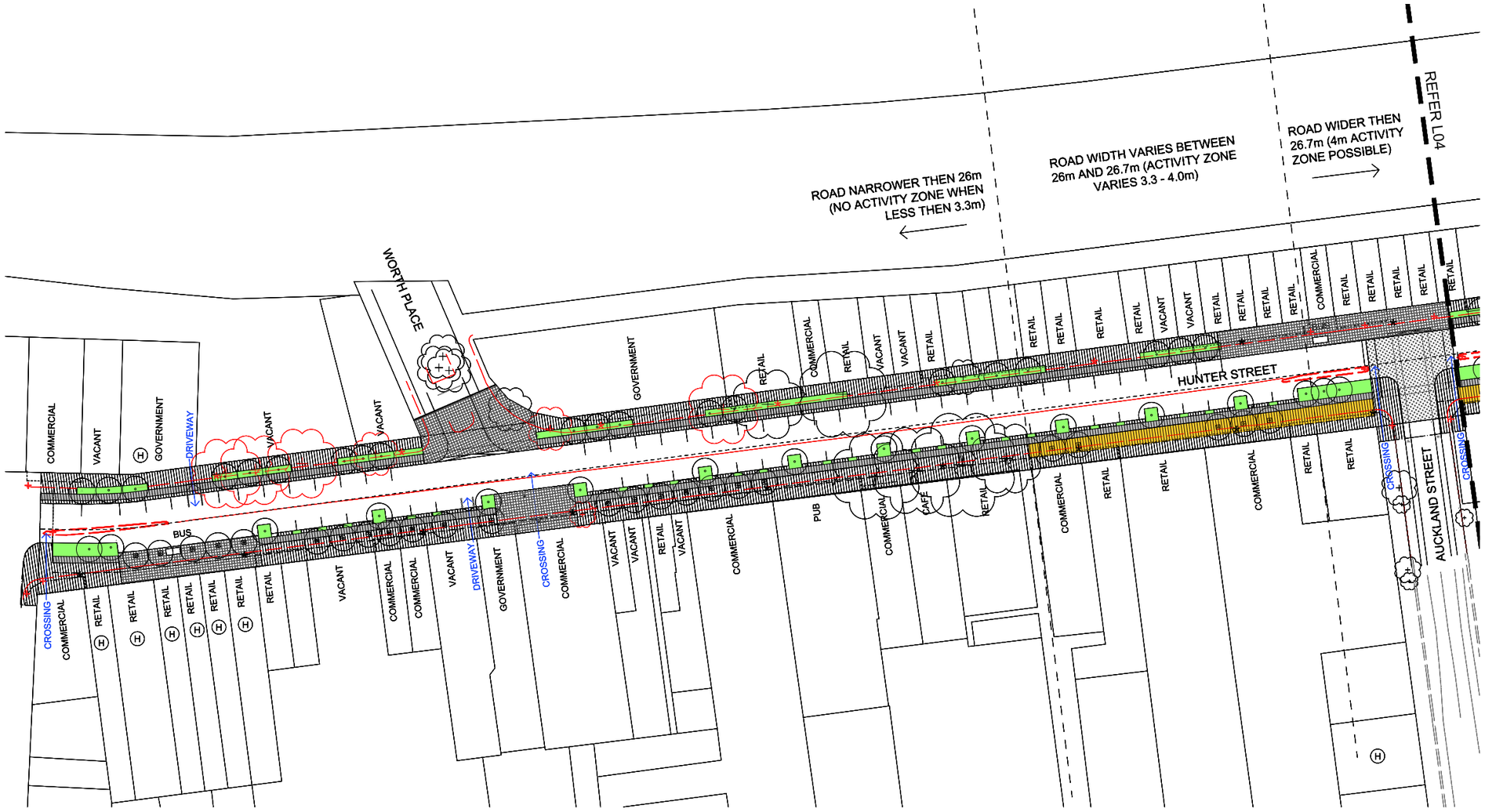






CIVIC PRECINCT

Section 3: Union Street - Auckland Street



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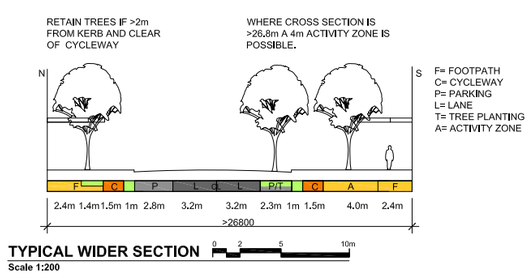

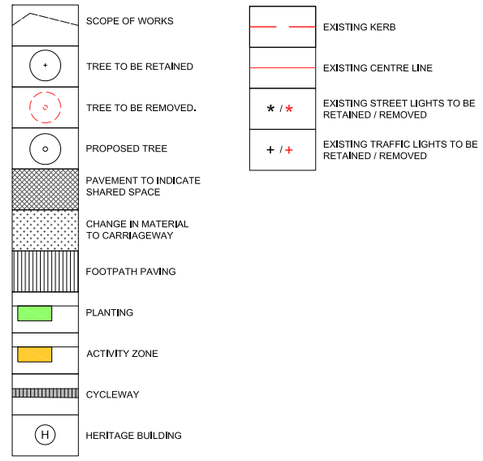

Section 4: Auckland Street - Darby Street