

Objectives

The Design King William project draws together the shared vision, design principles and theming to create a more vibrant streetscape, supported by rigorous studies undertaken by the consultant team to present an exciting new design for King William Road.

The detail design focuses on delivering outcomes aligned to the key community expectations for increasing **beauty, accessibility** and **activity** within the streetscape.

Key objectives for achieving the desired vision include:

Creating a more beautiful street

- Provide consistent canopy trees along a paved street
- Provide ground level planting and space for planter boxes
- Extend vine planting northwards and infilling existing gaps/ former planting pits
- Retain existing character of multiple shop-fronts, verandahs and variety of offerings
- Incorporate quality artworks within the streetscape
- Highlight local heritage

Creating a more accessible street

- Introduce two new formal pedestrian crossings
- Increase regular pram ramp crossing to provide a shorter crossing distance with improved visibility

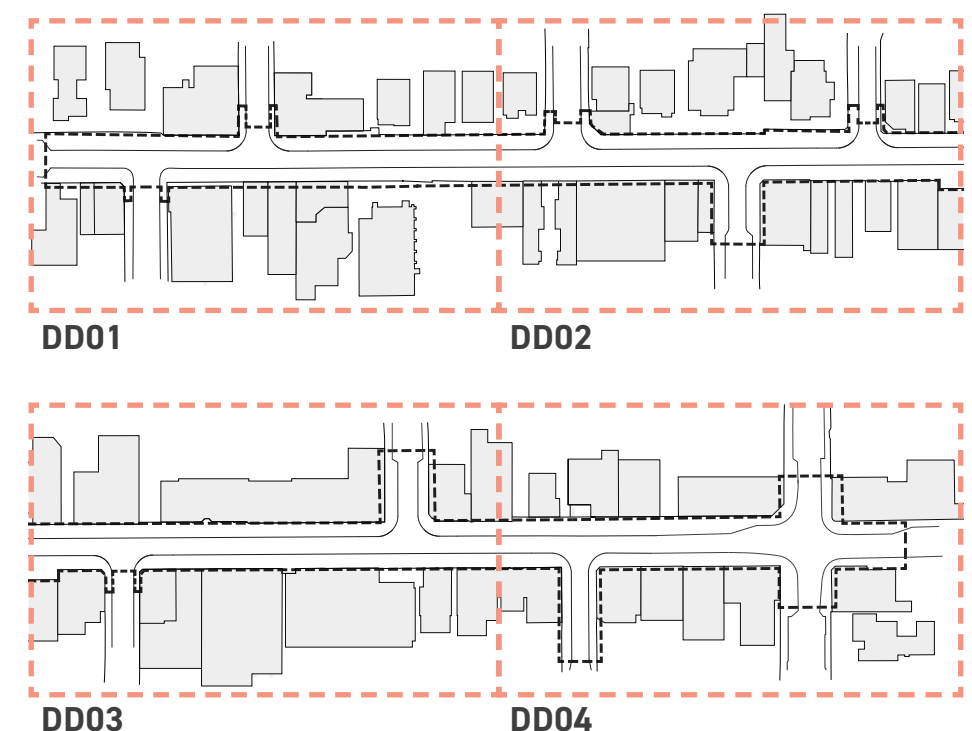
- Establish new pedestrian paving with a consistent quality
- Improve building entry thresholds where possible
- Introduce smart parking management to encourage turnover
- Provide legible and convenient signage
- Improve ease of movement along shop fronts
- Improve pedestrian, road and feature lighting
- Construct consistent road and kerb alignments

Creating a more active street

- Provide wide footpaths without obstructions to promote walking
- Establish more places for people to meet and congregate
- Support pedestrian nodes with shade trees and street furniture
- Introduce artworks to celebrate cultural themes and community connections
- Facilitate flexible outdoor dining where required
- Utilise smart technology to inform users of events, attractions and parking
- Incorporate new services and infrastructure to support events and festivals

The detailed plans on the following pages demonstrate how these objectives have influenced the streetscape design.

04 STREETSCAPE PROPOSALS



Key Plan

Design Developed Plan - DD01

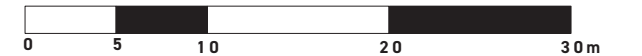
ARTHUR STREET



UNION STREET

Legend

- | | | | | | |
|--|---------------------|--|---|--|-------------------|
| | Street Greening | | Tree Canopy | | Bus Stops |
| | Paved Road | | Lighting | | Disabled Parking |
| | Parking | | Places to Meet | | Loading Zone |
| | Pedestrian Crossing | | Flexible Parking / Dining / Goods Display | | Motorbike Parking |















Design Developed Plan - DD02

MCGOWAN AVENUE

THOMAS STREET



Legend

- | | | | | | |
|---|---------------------|---|---|---|-------------------|
|  | Street Greening |  | Tree Canopy |  | Bus Stops |
|  | Paved Road |  | Lighting |  | Disabled Parking |
|  | Parking |  | Places to Meet |  | Loading Zone |
|  | Pedestrian Crossing |  | Flexible Parking / Dining / Goods Display |  | Motorbike Parking |

BLOOMSBURY STREET



Design Developed Plan - DD03

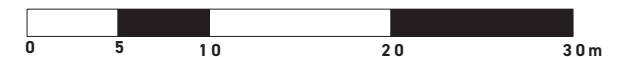
OPEY AVENUE



Legend

BOFFA STREET

- | | | | | | |
|--|---------------------|--|---|--|-------------------|
| | Street Greening | | Tree Canopy | | Bus Stops |
| | Paved Road | | Lighting | | Disabled Parking |
| | Parking | | Places to Meet | | Loading Zone |
| | Pedestrian Crossing | | Flexible Parking / Dining / Goods Display | | Motorbike Parking |

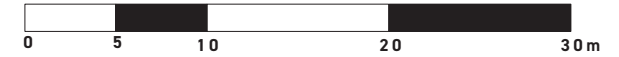


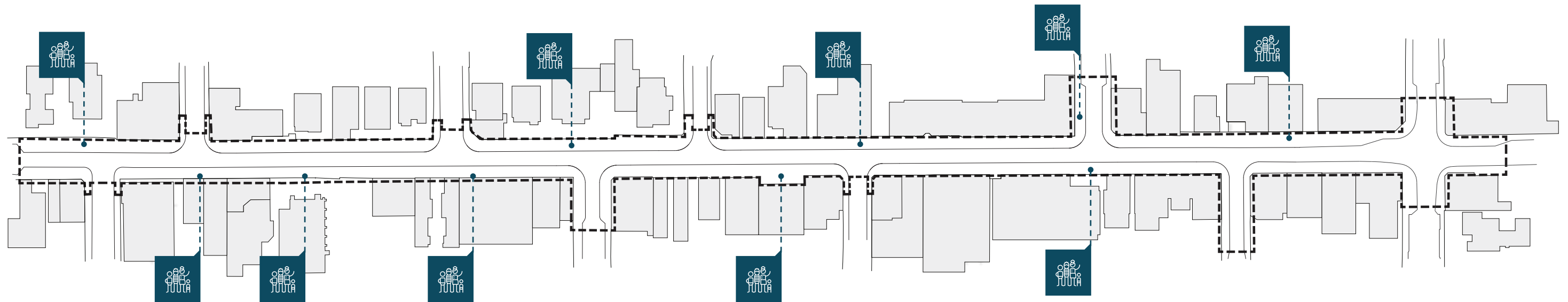
Design Developed Plan - DD04



Legend

- | | | | | | |
|--|---------------------|--|---|--|-------------------|
| | Street Greening | | Tree Canopy | | Bus Stops |
| | Paved Road | | Lighting | | Disabled Parking |
| | Parking | | Places to Meet | | Loading Zone |
| | Pedestrian Crossing | | Flexible Parking / Dining / Goods Display | | Motorbike Parking |





Typical Hub & Meeting Space Detail Plan

The detailed design creates an active street by creating pulse points as 'hubs' - a place where people naturally come together to gather and dwell, encouraged by a range of vibrant activities and visually interesting elements. The design includes 'hubs' at the head of side street intersections and other logical nodes, to attract further activity to the areas that already have the potential for a concentration of people - be that navigating, crossing, or pausing to rest.

Hubs will include a central piece of art to draw people's attention and include feature paving in a high quality paving material and interesting pattern. A variety of street furniture and amenities are strategically located in the vicinity, creating a concentration of activity, and generating vibrancy and facilitating movement, while keeping the main pedestrian walkways clear.

Smart technologies such as wi-fi, phone charging benches and potentially smart interactive screens will be considered for inclusion to add an extra dimension of connectivity, encouraging a younger demographic and facilitating engagement with social media.

A consistent canopy and feature understorey planting will contribute to a lush green feel, while feature lighting of artwork, street trees and within the pavement will draw visitors at night.

The hubs will work to tie the streetscape together into a memorable place where people will be comfortable to linger longer.

- 1 Consistent road and kerb alignments will be constructed to provide seamless access
- 2 Establish new pedestrian paving with a consistent quality
- 3 New flush pedestrian transitions to improve pedestrian accessibility
- 4 New hubs will provide active places to meet, linger and celebrate the new infrastructure installed along a revitalised King William Road
- 5 Increase in new regular pram ramp crossings
- 6 Introduce smart parking management to encourage turnover in oversized parking bays
- 7 Provide ground level planting and street trees to create a lush green feel



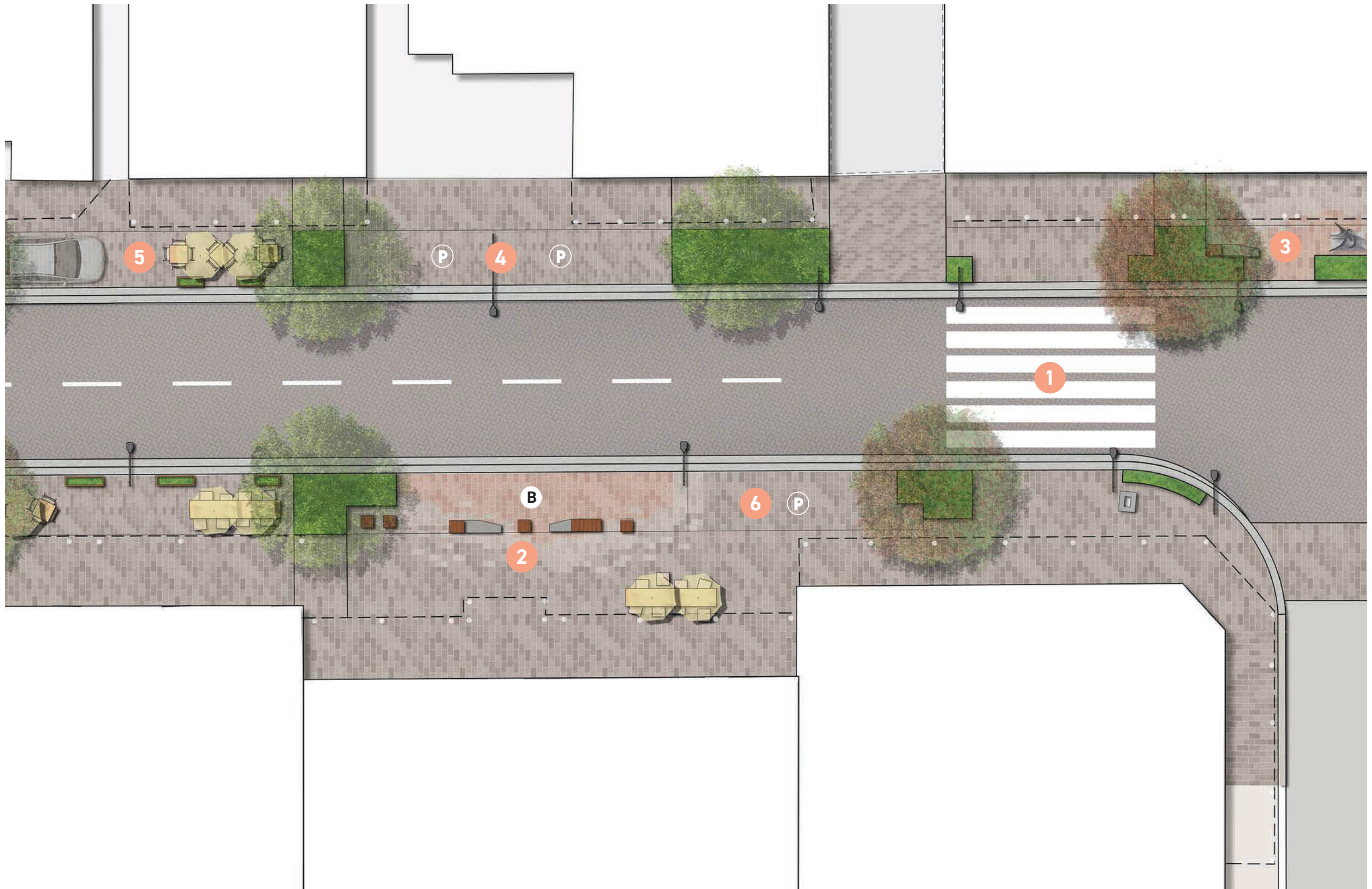
Detail Plan - Typical Hub & Meeting Space

Pedestrian Crossing and Bus Stop Detail Plan

*“King William Road will encourage public transport and celebrate pedestrian movement in a more **accessible** environment.”*

The detailed design phase focuses on pedestrian movement first and vehicular movement second. The design incorporates formal and informal pedestrian crossing points along King William Road whilst maintaining the accessibility of public transport.

- 1 Introduce two new pedestrian crossings to provide safe priority to cross King William Road
- 2 Provide pedestrian hubs with shade trees and street furniture
- 3 New hubs will introduce artworks to celebrate cultural themes and community connections
- 4 On-street parking has been given generous dimensions for ease of use
- 5 Host flexible outdoor dining or display of goods where appropriate in place of regular on-street parking
- 6 Introduce smart parking management to encourage turnover

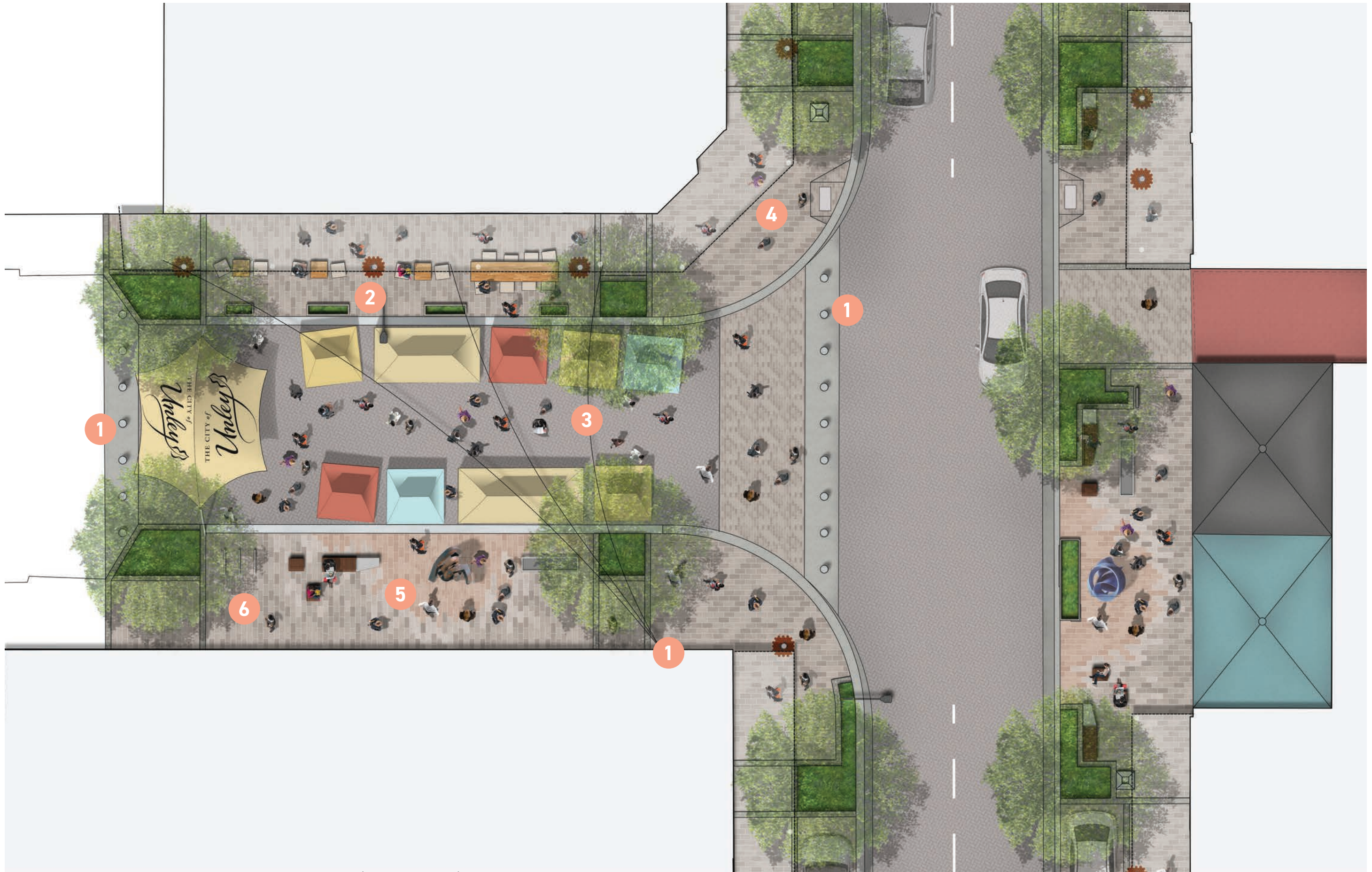


Detail Plan - Pedestrian Crossing & Bus Stop

Side Street Event Space Detail Plan

Side street activation is a key layer in the design development of King William Road that further reinforces the new flexible and beautiful nature of the precinct. Key side streets will have accessible event infrastructure in place such as bollard protection and external power sources.

- 1 Incorporate new services and infrastructure to support events and festivals - such as removable bollards and external power connections
- 2 Improve pedestrian, road and feature lighting
- 3 Activate side streets to encourage markets and small festivals
- 4 Improve ease of movement along shop fronts
- 5 Incorporate quality artworks within the streetscape
- 6 Provide, at the hubs, accessible amenities such as bike racks, seating and drink fountains



Detail Plan - Side Street activated for small event (Opey Avenue)

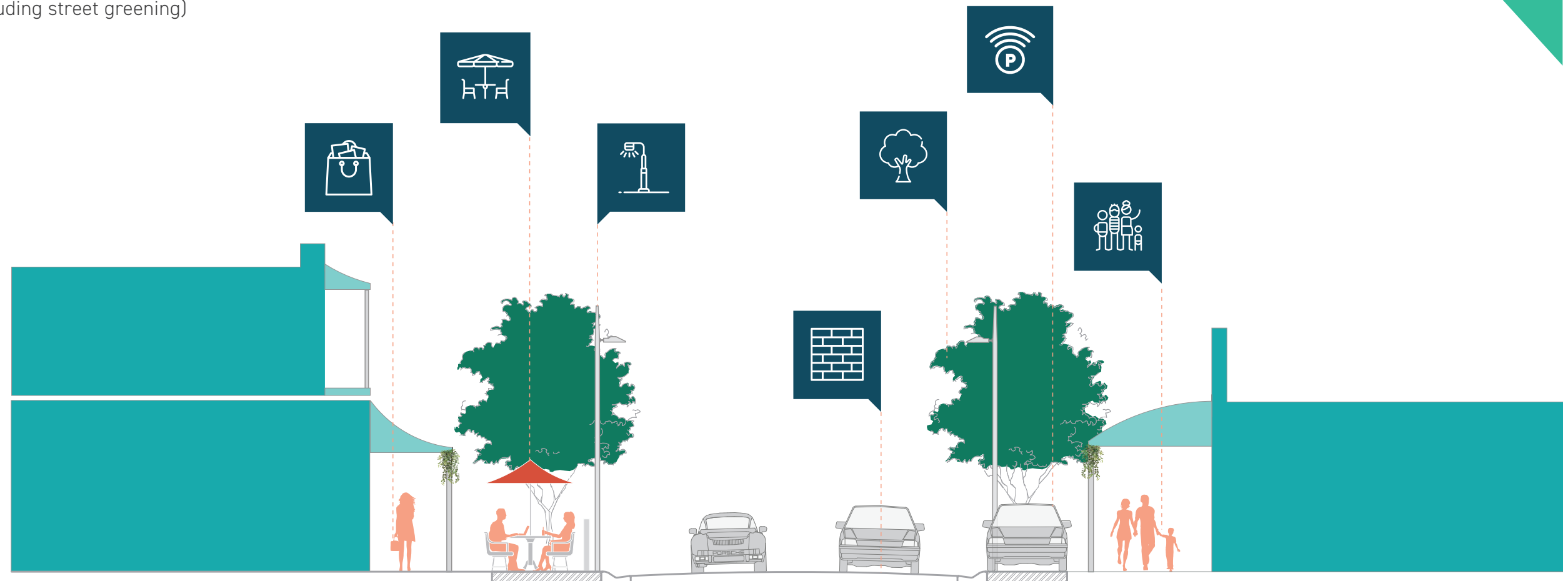
Design Layers

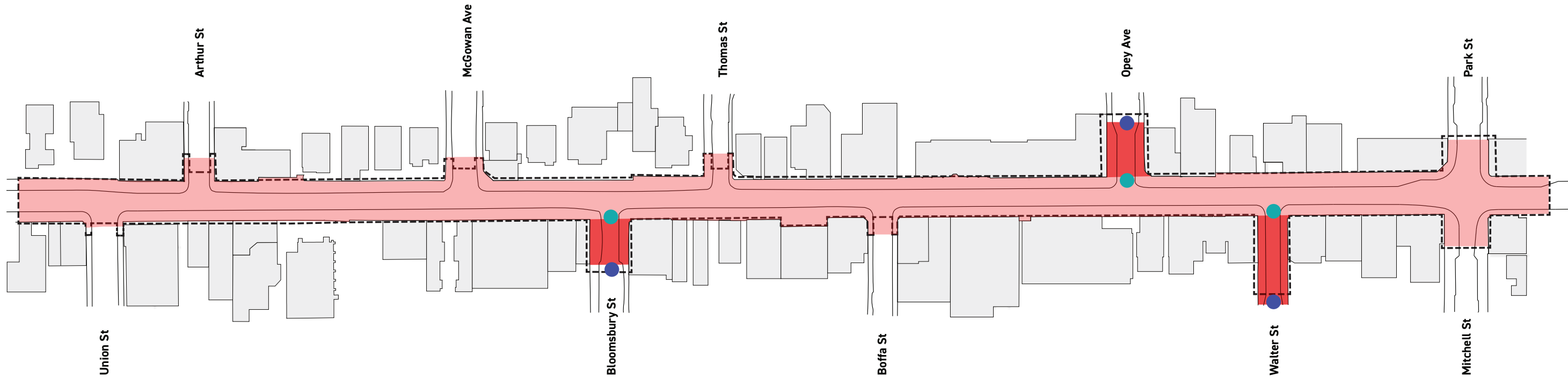
The layers of the design address key streetscape elements that the community identified as important to the appeal of the street during the consultation.

These elements included:

- Events and Activation
- Heritage
- Smart Technology
- Lighting
- Public Art
- Public Realm Palette (including street greening)

05 STREETSCAPE DESIGN LAYERS





Events and Activation

The design will support the ongoing activation and excitement of the Precinct through the establishment of flexible urban settings that can be easily transformed into small event spaces. The detail design includes the provision of event services and bollard protection at Opey Avenue and Bloomsbury Street intersections.

Legend

- Side street Pop Ups
- Main street closures
- Removable bollards
- Event services



Large Event Closure

The entire precinct will be closed during prominent events such as 'The Tour Down Under' or the 'Unley Gourmet Gala' festival.



Pop-up Markets

Side street locations are ideal to host pop-up markets, art shows, movie nights, or other intimate programmed events.



Removable Bollards

Bollards that can be dropped into pre-installed sleeves in the roadway will be used to create temporary closures during smaller events.





Heritage

Celebrate the unique character and history of the precinct, including expanding the network of grape vines along the building awnings, use of quality materials that value the built heritage and reveal the local history through a discovery trail.

Legend

- Heritage facades
- Existing vines
- New vines
- Discovery trail



Heritage Buildings

Encourage landlords to highlight historic buildings and other interesting architectural features with tasteful lighting to the building facades.



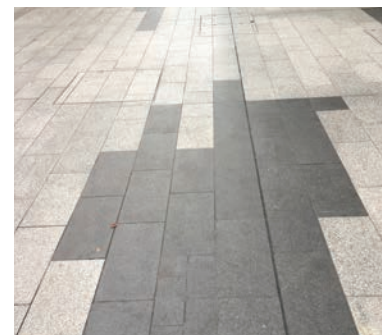
Vines & Metal Lacework

The ornamental vines lining the street's verandahs are iconic to King William Road. New vine plantings will continue the existing vines.



Discovery Trail

A commentary will be provided on interesting historic elements that make up the Precinct, told through signage, plaques and small installations dotted through the design.



Materials

High quality materials will be selected to complement the heritage character of the precinct. Stone, timber and delicate metalwork will be used to design an elegant streetscape.



Street Furniture

A suite of furniture will be considered to complement the precinct character. Shape, materials and style will combine to sit comfortably alongside heritage elements.



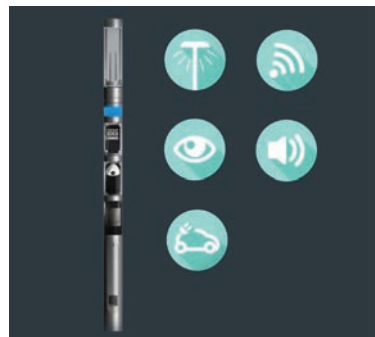


Smart Technology

Introduce new technology and infrastructure provision to support a better visitor experience to King William Road, including digital wayfinding, Wi-fi, smart benches and on-street parking sensors.

Legend

- Smart lighting
- Smart screens
- █ Smart Parking (On-Street)
- Smart benches
- Smart Parking (Off-Street)
- to be investigated with land lords and individual traders



Smart Street Lighting

Street lighting will accommodate many smart technology features including dimmable lighting, CCTV, speakers, wi-fi and future car charging points.



Smart Screens

Interactive screens throughout the precinct will promote better wayfinding and encourage people to explore the shops in the precinct.



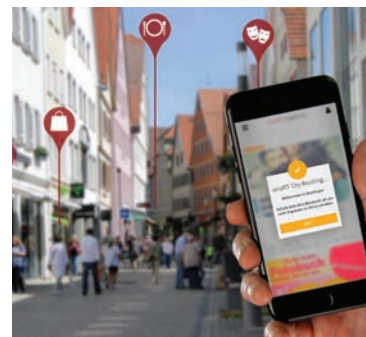
Smart Seating

Smart benches will incorporate solar powered phone charging capabilities to allow visitors to stay longer in the space.



Smart Parking

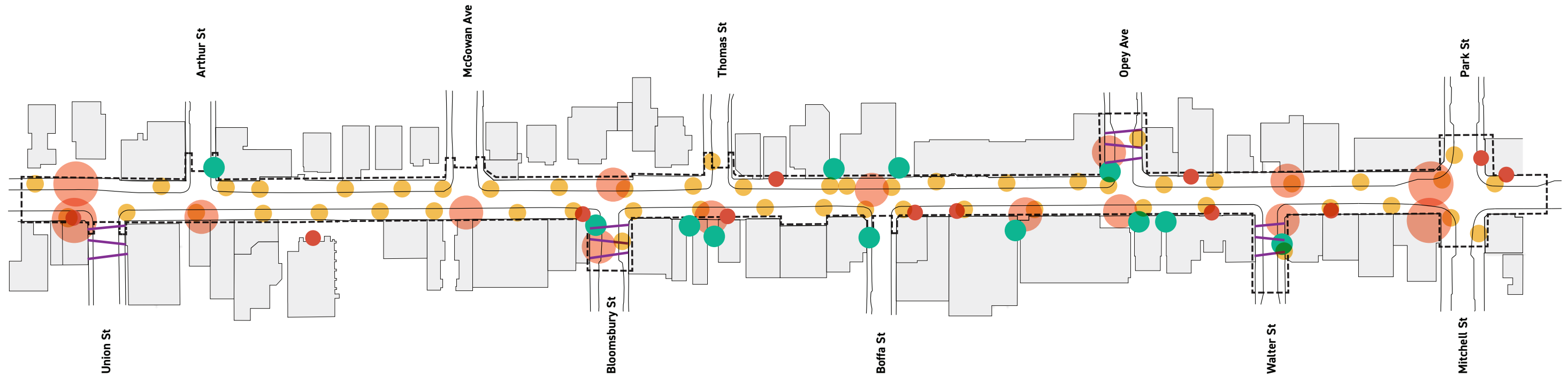
Parking sensors will be incorporated in on-street and rear-of-shop parking to allow visitors to more easily locate available parking spaces via an app.



Smart City App

Investigate development of an app to provide additional information about shopping and service features in the precinct.





Lighting

Create an inviting night time atmosphere that emphasises King William Road as an important pedestrian focused streetscape that supports safer movement for all. The detail design proposes new energy efficient, smart street lighting, designed and placed at an appropriate pedestrian scale, with feature lighting to add colour and highlight points of interest along the street.

Legend

- Smart lighting
- Gateway and art pieces
- Mural wall lighting (by others)
- Facade lighting (by others)
- ||| Laneway feature lighting (future consideration)



Signature Lighting

Feature artworks at entries to the precinct will be illuminated with lighting effects to create a dramatic statement.



Smart Lighting

Street lighting poles with smart technology capabilities.



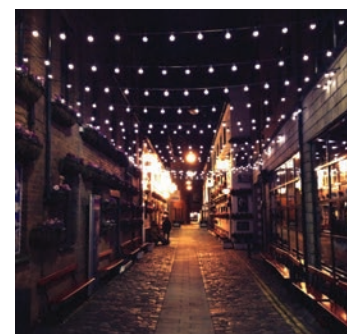
Facade Lighting

Encourage landlords to highlight heritage buildings, facades and murals with lighting effects.



Feature Lighting

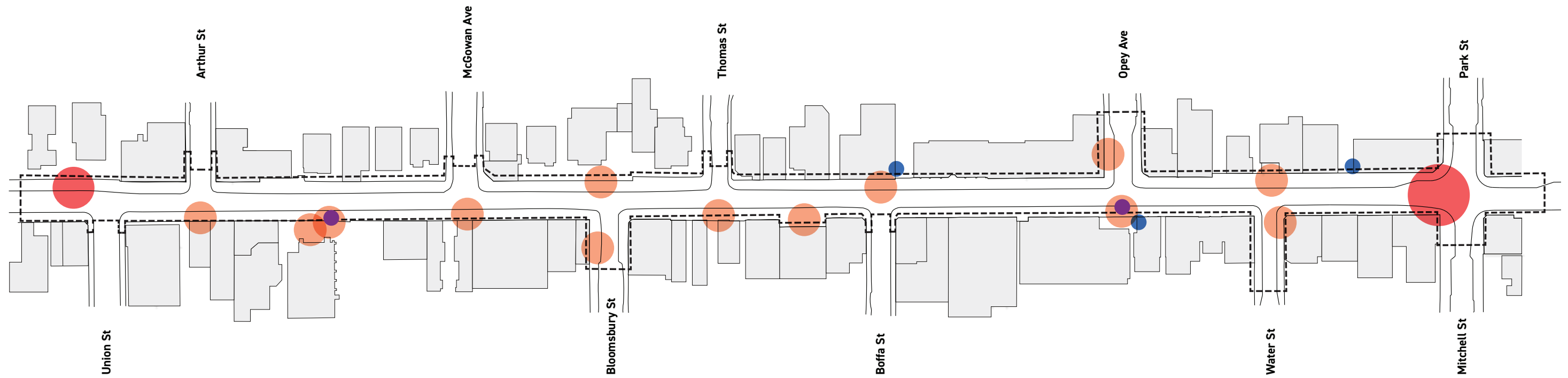
Trees, furniture and artworks will be uplit to further add to the ambiance at night.



Laneway Festoon Lighting

Investigate the future lighting of side streets and laneways to encourage evening activity, especially during events and festivals.









Public Art

Create a variety of stylish settings that identify King William Road and encourage people to spend more time within the Precinct. The detail design identifies integrated art in the detail of the streetscape, designated art pieces, signature pieces and discovery trail. In addition, art on private property is encouraged to enliven disused spaces or blank walls / facades.

Legend

-  Signature artwork (Options)
-  Integrated artwork
-  Art pieces
-  Murals (by others)



Signature Artworks

Large, iconic installations that mark the beginning and end of a precinct. These can be suspended over an intersection and lit at night to introduce a spectacular visual draw card for visitors.



Stand-alone Artworks

Smaller art that can be distributed throughout the precinct at gathering spots. Art adds beauty and vibrancy to the streetscape and contributes to the festive atmosphere.



Murals and Wall Installations

Encourage landlords or traders to improve facades with architectural features. Styles include traditional murals, 3D installations and projections.



Integrated Art

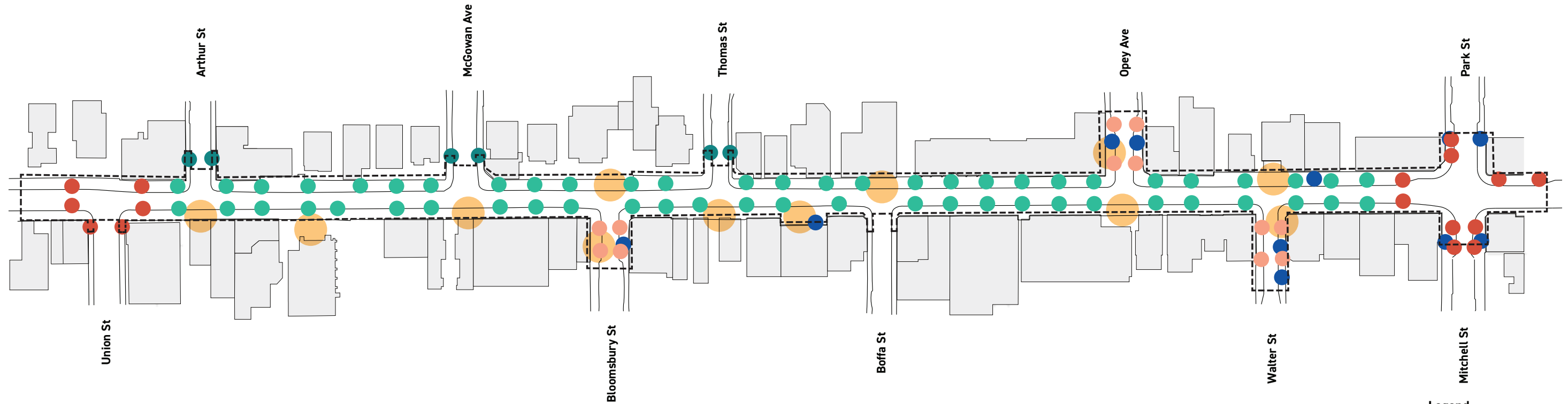
Art will be designed into urban design elements to add richness to the streetscape and continue an artistic theme. Art will be included within furniture, paving, lighting or tree grates.



Feature artistic seat

A feature seating element in a prominent pedestrian hub will encourage interaction with the artwork and reinforce the artistic theme.





Legend

- Fraxinus Urbanite
- Acer Freemanii
- Tristaniopsis laurina / Lagerstroemia ssp.
- Ginkgo biloba / Magnolia exmouth
- Street furniture
- Bike facilities

*Note: All tree species are subject to availability

Public Realm Palette

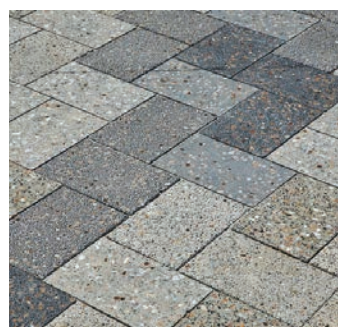
Introduce a high quality, bespoke, comfortable, accessible and consistent public realm palette, including paving, street furniture and planting. Bollards will be used where necessary to organise the streetscape and appropriately respond to public risk.

Use only the most durable, robust, high quality and low maintenance materials that reflect local heritage and contemporary architecture.



Seating

Seating will be abundant, comfortable and interesting in form. A great suite of street furniture creates consistency throughout the street.



Paving

Paving will include a robust selection of materials that complement the existing streetscape character.



Street Greening

Street greening contributes to a softening and welcoming effect on the streetscape. Street tree planting as well as a lush understorey layer at pedestrian level.



Street Elements

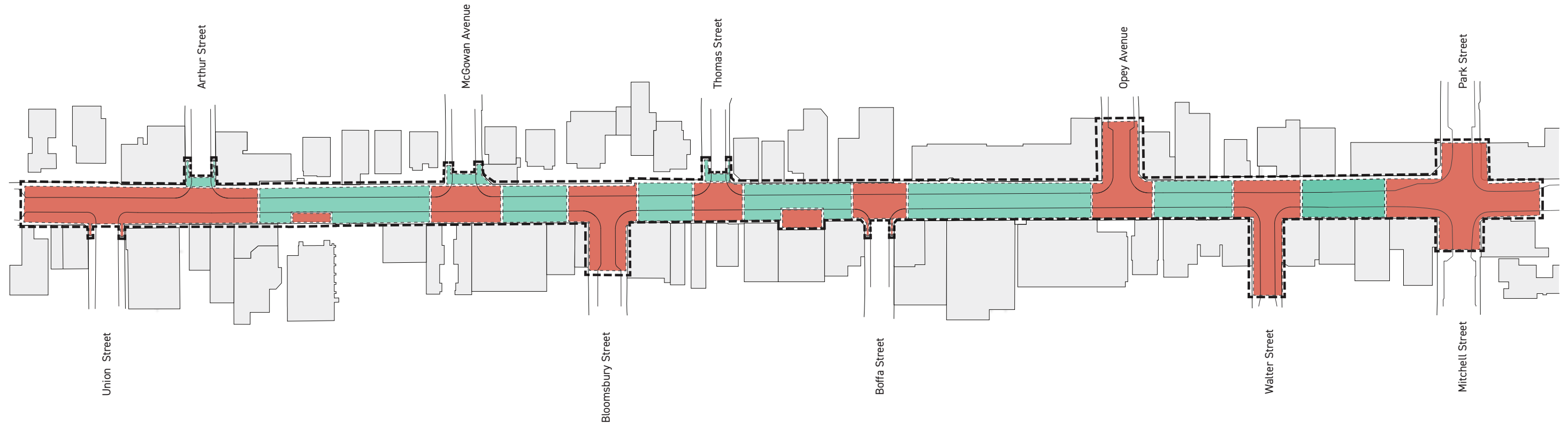
Other elements include bins, recycling facilities, drinking fountains, tree grilles and stormwater grates. Art elements will be integrated into the suite of furniture.



Bike Facilities

End of trip bike facilities such as bike racks and drinking fountains will encourage increased patronage by cyclists. Facilities located on side streets to keep the main street clear.





Understorey Planting

Establish a planting palette that contributes to a more beautiful street. Planting will create a lush, green feeling at pedestrian level, softening hard built edges and paved areas. The proposed planting palette includes the following species:



- Feature Understorey Species**
- Aeonium 'Zwartkop'*
- Zamia furfuracea*
- Limonium perezii*
- Kalanchoe thyrsiflora*
- Buxus microphylla var. japonica*
- Aloe hybrid*
- Dianella 'Blaze'*
- Echeverias*
- Correa 'Crimson Tide'*
- Syzygium Australe 'Tiny Trev'*
- Philodendron 'Xanadu'*
- Clivia miniata*

- Standard Understorey Species**
- Dianella prunina 'Utopia'*
- Scenecio serpens*
- Scaevola albida*
- Westringia fruticosa 'Grey Box'*
- Acacia cognata 'Limelight'*
- Dianella tasmanica - 'Emerald Arch'*
- Conostylis candicans*
- Salvia nemorosa 'Blue Hills'*
- Aeonium arboreum*

Understorey planting colour theory

The vision of 'Pulse Points' proposes the concentration of urban design elements in 'hubs' to promote activation. The idea of concentrated elements continues through the planting palette where the colour and lushness of the planting increases at these hubs.

06 STREETSCAPE DESIGN DETAIL

*“A more **beautiful, accessible and active** main street that maximises the opportunity for change along a more flexible paved street.”*



A Beautiful Street

1. Trees + Greening

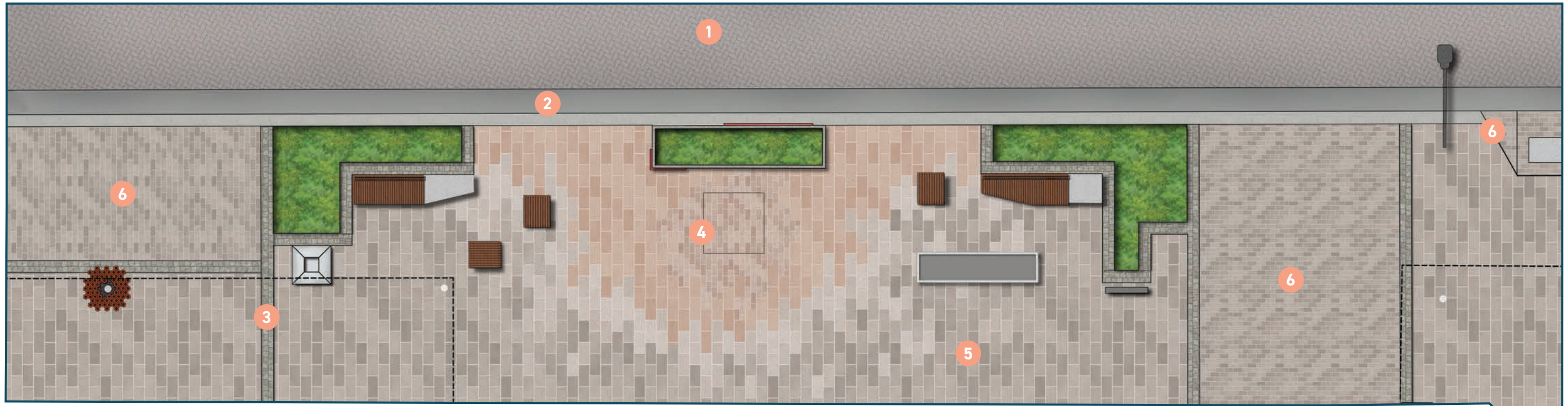
- A consistent avenue of canopy trees with lush understorey planting will be provided throughout the precinct

2. Pavement

- The streetscape surface will be constructed with new, high quality block pavers to both road and footpaths to complement the existing character
- Feature paving at 'hubs' will increase the beauty of the streetscape

3. Lighting

- New LED street lighting will be provided at a pedestrian scale to increase evening ambience
- Feature lighting to artworks and building facades will further increase the aesthetic appeal of the street



Hard Landscape Palette

A successful 'Beautiful Street' requires a durable selection of pavement materials, including road, kerb and footpath.

Materials will include the following:

- Consistent road paver delineating traffic lanes
- Interesting footpath paver delineating pedestrian zones with distinct header course edging
- Consistent concrete rollover kerb alignment
- Paver sizes suitable to the scale of the precinct
- Colours and textures of materials to complement the existing character of the precinct

Materials Selections



1. Roadway

Interlocking Paver - a durable concrete paver in a colour to complement the verge treatment



2. Kerb

Rollover Kerb - a laid-back concrete kerb tinted to match the road paver colour



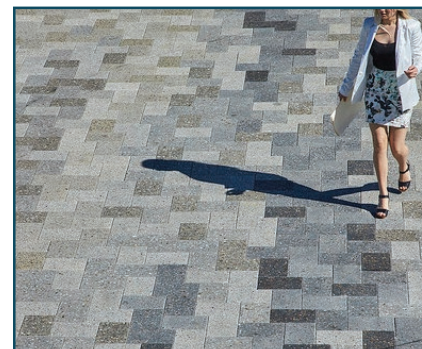
3. Edge Banding

Cobble - a smaller format concrete cobble to delineate pedestrian zones



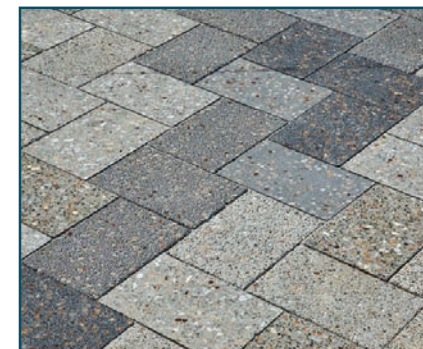
4. Feature Pedestrian Paver

Feature Paver - a paver with texture and colour to draw attention to 'hubs'



5. Pedestrian Path

Concrete Paver - a mix of different finishes will be used to create a high quality paved surface



6. Parking & Driveways

Concrete Paver - to prevent paver movement a smaller paver will be used in these areas



An Accessible Street

1. Pedestrian Crossings

- Two new formal pedestrian crossings will be provided within the precinct
- An increase in regular pram ramp crossings will provide more opportunities to cross, with improved visibility and safety

2. Movement

- Wider footpaths without obstructions will be provided to promote walking

3. Kerb

- The realignment of kerbs and introduction of a rollover kerb will provide long term flexibility and support a slower speed environment
- A rollover kerb will provide ease of parking to encourage use

4. Lighting

- Formal crossings will be lit with new LED lighting with reference to the Australian Standard, to maximise pedestrian safety



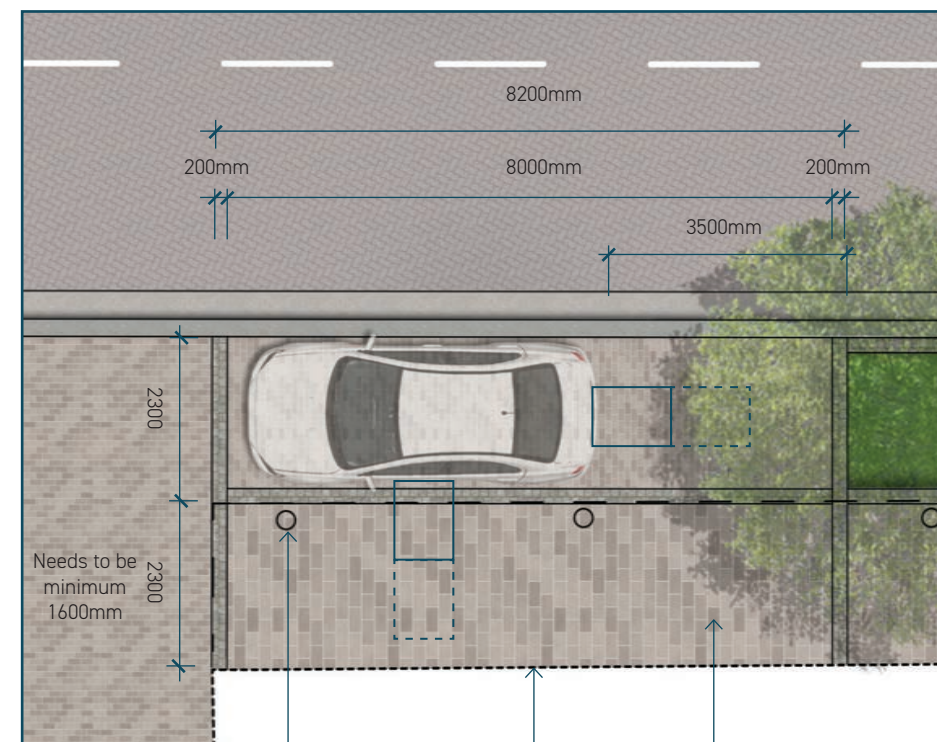
Access Requirements

The Precinct is designed to be accessible to all, including the following requirements:

- **Level footpaths** - Pedestrian path to be as compliant and level as possible leading into existing buildings. Localised grading may be required to improve thresholds at entries.
- **Define driveways** - Driveways will be visually different (paving size and pattern direction) to the pedestrian path to help act as a warning for the visually impaired.
- **Delineate driveways** - A cobble header course will be used to further reinforce the change in path habit.
- **Compliant pram ramps** - Ensure smooth transition from pram ramp to rollover kerb to road paving surface for ease of use.
- **Define parking bays** - Parking bays will be visually different (paving size) to the pedestrian path to notify pedestrians of a new use along the path.
- **Delineate parking bays** - A cobble header course will be used at the junction between the parking spaces to help the vision impaired to not deviate off the footpath - this cobble border will have the appropriate luminance contrast and change in textural surface.

The detail design phase has determined that in two key locations conditions are suitable for disabled parking on King William Road.

Access requirements state that the parking surface should be flush with the adjacent surface.



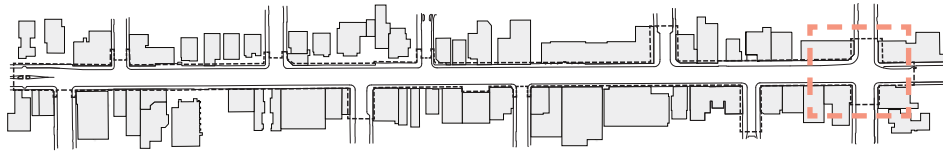
Verandah Posts Property Boundary Shared area is flush paver transition

New Disabled Parking Conditions

1:100 @ A3

Legend

- 1 Level Footpaths
- 2 Define Driveways
- 3 Delineate Driveways
- 4 Compliant Pram Ramps
- 5 Define Parking Bays
- 6 Delineate Parking



Park Street / Mitchell Street Intersection

Park Street / Mitchell Street intersection is an important key collector route for vehicles and as such the detail design will maintain the turning lanes to help mitigate future traffic growth.

- The intersection design allows for left and right turn storage whilst vehicles wait for pedestrians and opposing traffic respectively
- Retains existing traffic signal phasing which is understood by many drivers
- Retains similar intersection performance as existing, however still allows for future growth capacity, if that is desired.
- Creates a significantly improved public realm opportunity around the intersection

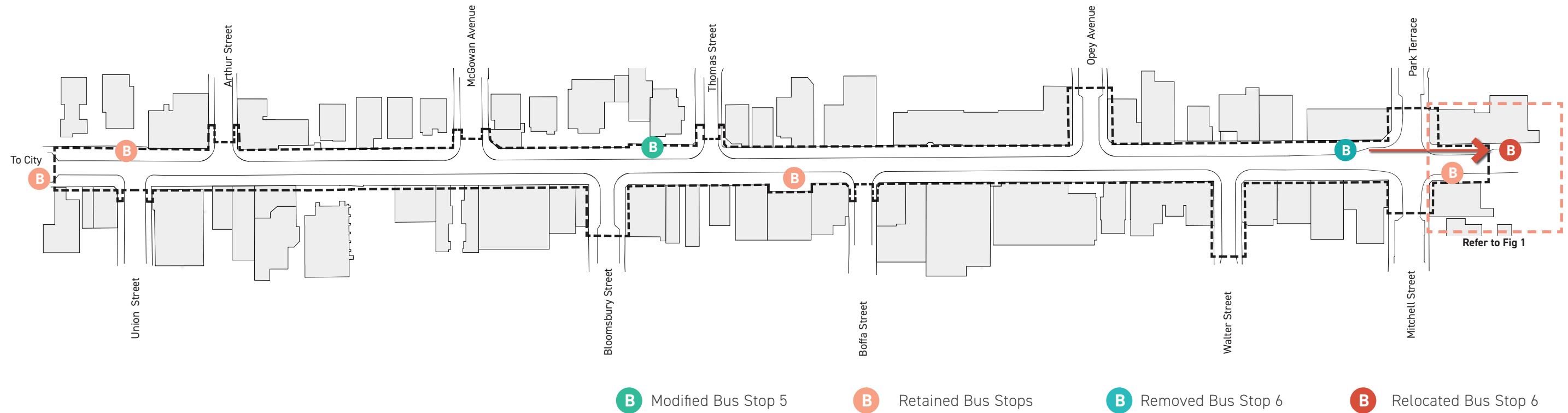
Intersection Design

To mitigate any potential impact of right turn delays on the key approaches, GTA has developed a design that allows for a balance of additional public realm and traffic flow. The design retains a separate right turn lane from Park Street onto King William Road and some additional width on the King William Road north approach to enable through movements to be unobstructed when a left turning vehicle is giving way to pedestrians.

The design will also better facilitate Council refuse collection vehicles to turn on all approaches.

Articulated buses will also be able to continue straight ahead on the King William Road approaches.





Public Transport

Indented bus stops

The proposed detail design includes modification of the bus stop 5 indent, which is currently narrower than standard width and located in a confined space. Removal of the indent is recommended and whilst this will mean buses will stop in the traffic lane, this will prevent conflict of drivers attempting to overtake the stationary bus.

Relocated bus stops

Bus stop 6 southbound is proposed to be relocated to the south of Park Street. Locating a bus stop on the departure side of traffic signals is generally preferable to the entry side. The current location impacts on the bus manoeuvring back in to the traffic lanes at the signals when leaving the bus stop. The proposed location will require the removal of two on-street parking spaces outside the Hyde Park Tavern. This will enable a suitable taper entry and 18m bus zone prior to the Tavern car park access. The existing landscaping would not be impact although a small kerbed area would need to be removed.

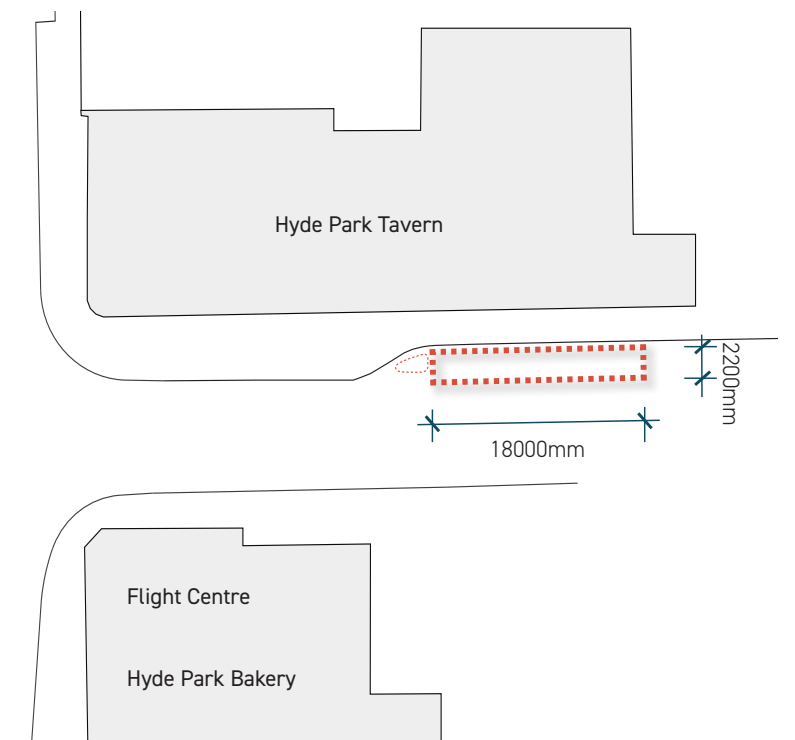


Fig. 1 - Relocated Bus Stop Location





An Active Street

1. Footpath

- A wide, unobstructed footpath will encourage pedestrian movement along the street

2. Flexible Parking / Outdoor Dining

- A street structure will be provided that is flexible to traders' needs - whether that is outdoor dining, on-street parking or displaying goods.

3. Bollards

- Some bollards are necessary for pedestrian safety while dining outdoors on the street
- Moveable bollards will be located enable a car park to be transformed into an outdoor dining area or display of goods for local businesses

Flexible Parking Solution

A key intent in creating an 'Active Street' is the ability of the streetscape to be flexible and allow for a variety of uses. This necessitates that some parking spaces are able to change to adapt to different uses at different times.

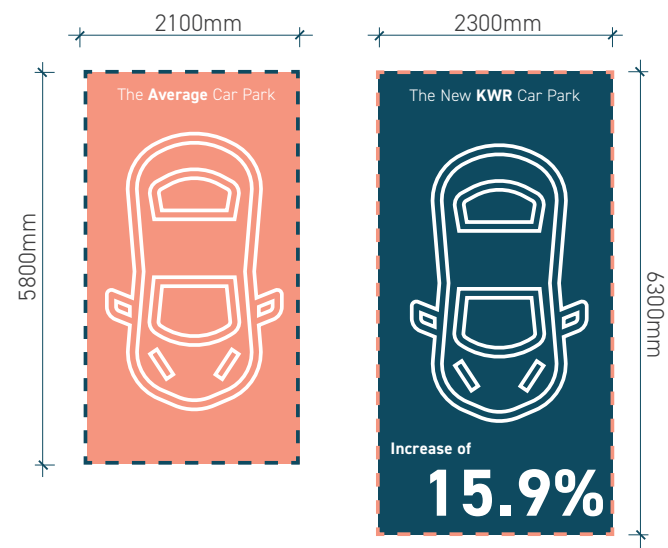
Key considerations in the design of flexible on-street parking include:

- Day versus night parking requirements
- Weekday versus weekend use
- Seasonal changes in usage
- Outdoor dining
- Display of goods
- Protection of pedestrians
- Locating permanent streetscape elements



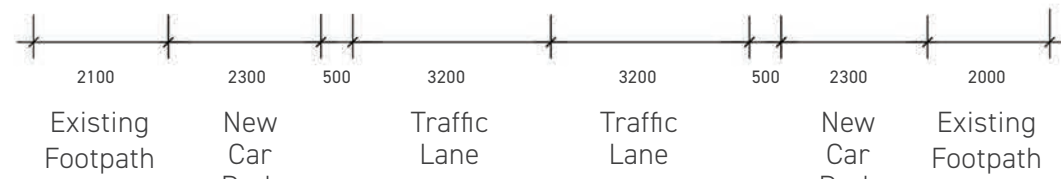
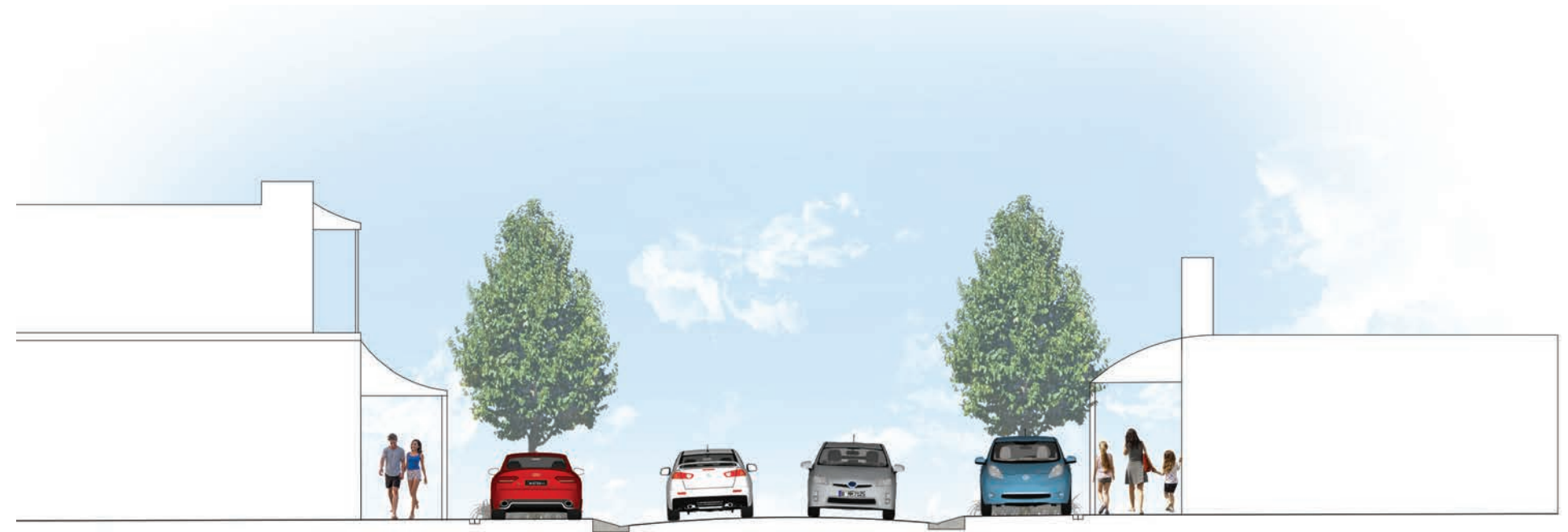
On-street Parking

On-street parking is a vital component of King William Road. The detail design phase has ensured that on-street parking conditions have been greatly improved by maximising space for vehicles. Which can be seen in the accompanying diagrams.



Existing

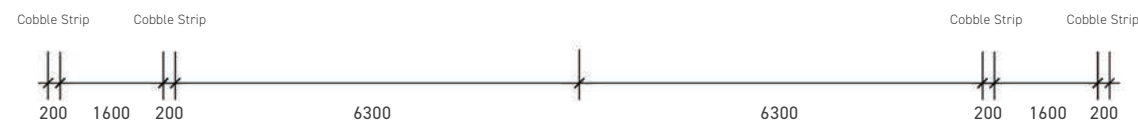
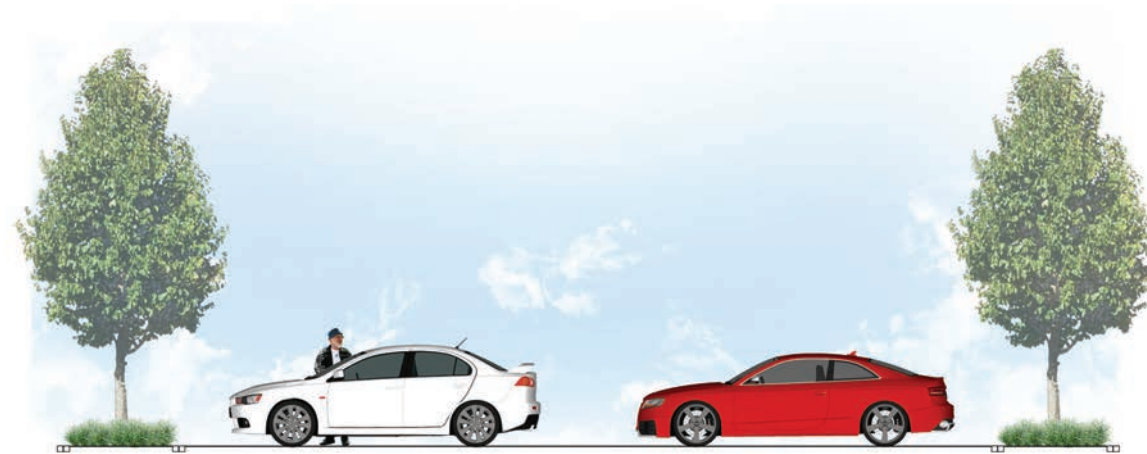
Proposed = 500mm longer and 200mm wider than existing parking bays



Typical Road Profile Cross Section

+ 200mm wider than existing parking bays

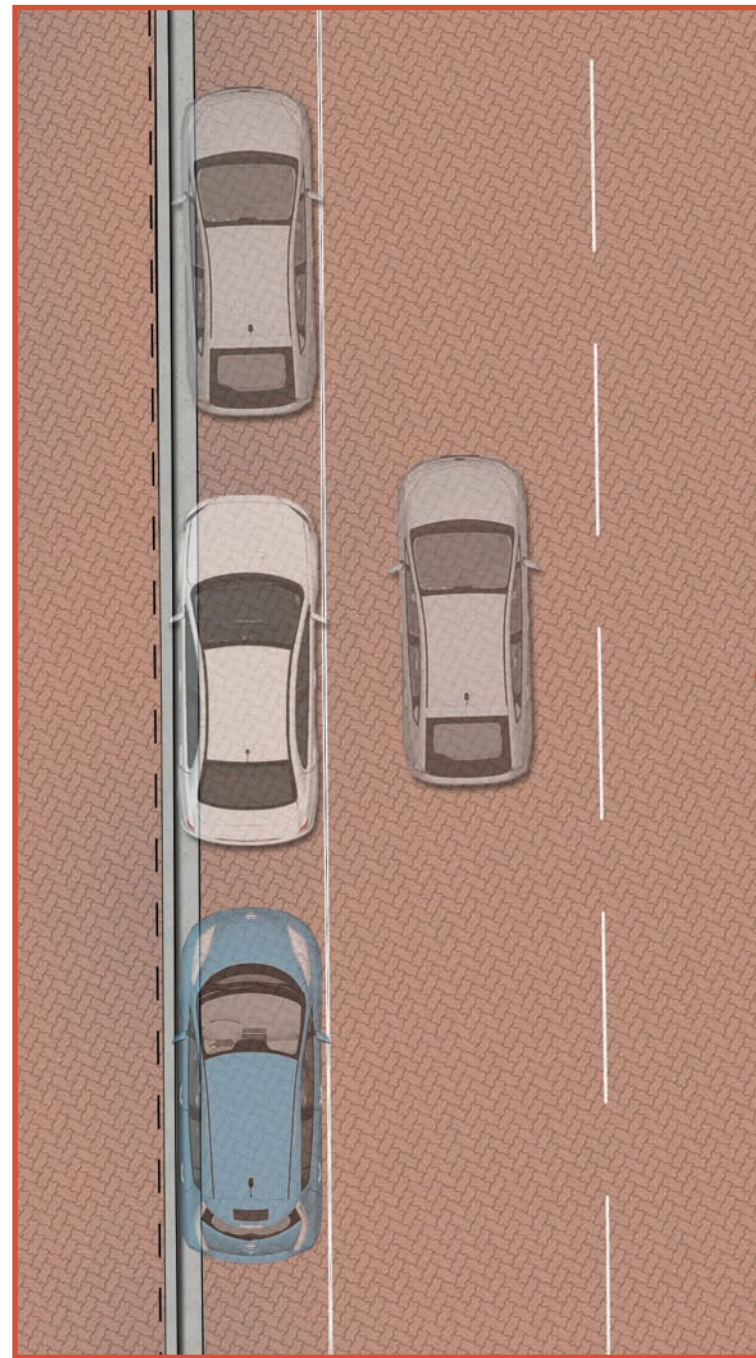
+ 200mm wider than existing parking bays



Typical Parking Profile Long Section

+ 500mm longer than existing parking bays

+ 500mm longer than existing parking bays



Existing Parking Conditions 1:100 @ A3

Narrow Parking Lane

Cars are squeezed up against upright kerb

Parking Length

No designated lane parks - cars feel cramped and congested

Traffic Lane Width

Traffic Lane is too wide for a pedestrian orientated Main Street



New Parking Conditions 1:100 @ A3

Elevated Parking

Parking is designated and simplified with ample room for maneuverability

Rollover Kerb

New kerb profile is designed to provide an easy transition between traffic lane and parking space

New Slim Traffic Lane

Traffic lane slimmed to provide a slower traffic environment

Safety and Risk Management

A review of the proposed outdoor dining areas has been completed in relation to risks from traffic. A matrix approach has been used that considers the nature of the adjoining traffic speeds and volumes, crash history and proximity to intersections (refer table opposite). The matrix approach is used by many Councils to identify the level of risk that a site might present.

Assessments for King William Road have been completed for outdoor dining areas that are adjacent to or opposite intersections, adjoining parking areas or just adjacent to the travel lanes. The matrix assessment has identified that the proposed sites would be considered a moderate risk, and that some protection should be considered. The locations adjacent and opposite intersections would create a slight increase in risk compared to the other sites and are therefore identified for some additional bollard protection.

Risk Matrix Criteria

- Travel lane adjacent kerb
- Crash history
- Traffic speeds
- Traffic volumes
- Intersection type
- Proximity to intersections



- Higher risk at road intersections
- Higher risk at adjacent parking spaces
- Lower risk in mid block sections

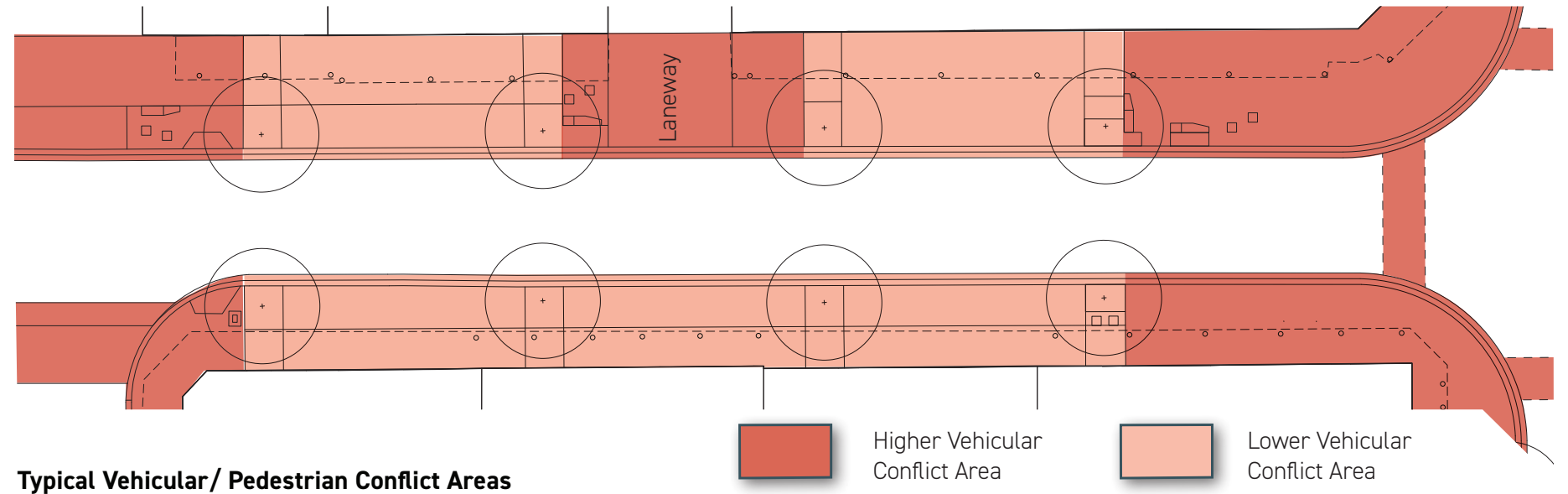
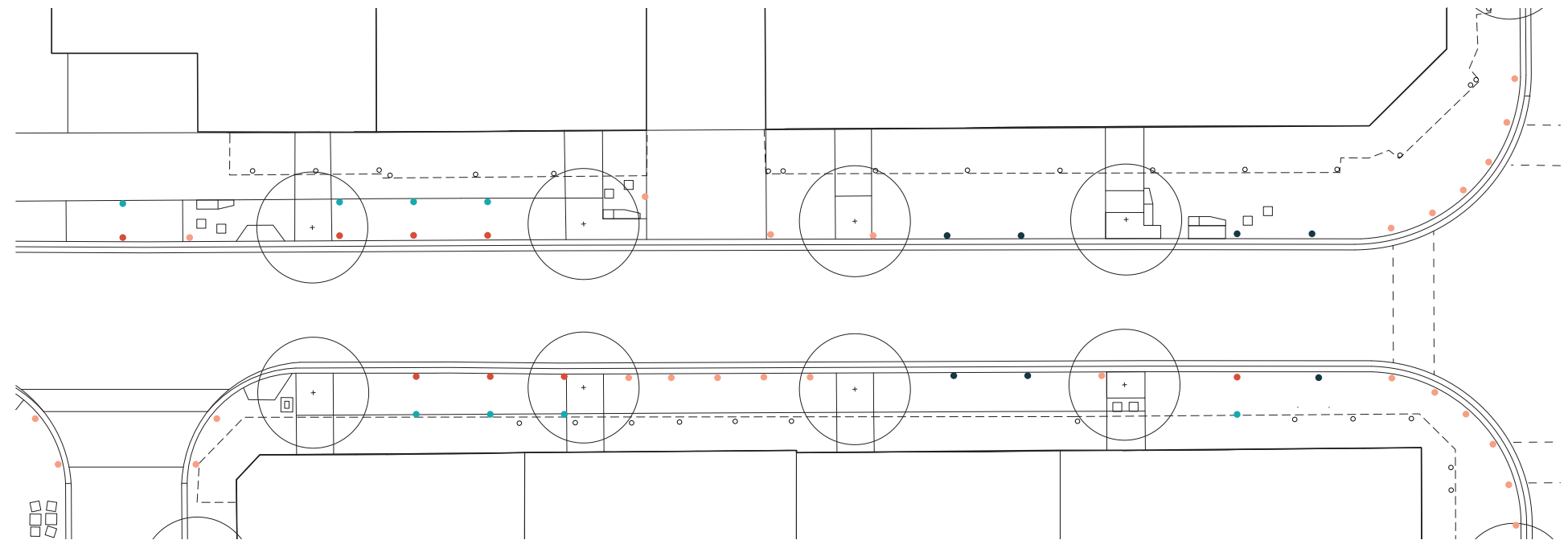


Table 1: Site Risk Rating System

Criteria	Risk Rating
<p>Clearance to Vehicle Travel Lane <i>Clearance should be measured from the nearest point of the ODA to the vehicle travel lane</i></p>	0 – Greater than 5.4m 1 – Between 5.4m and 3.71m 2 – Between 3.7m and 2.51m 3 – Between 2.5m and 1.51m 4 – Between 1.5m and 0.3m 5 – Less than 0.3m
<p>History of crashes / vehicles leaving the roadway <i>Crash criteria refers to the number of crashes related to vehicles leaving the road (i.e. hit fixed object, hit parked vehicle, side swipe)</i></p>	0 – No history of crashes 1 – Less than 0.3 crashes per year 2 – Between 0.3 and 0.5 crashes per year 3 – Between 0.51 and 0.7 crashes per year 4 – Between 0.71 and 1.0 crashes per year 5 – Greater than 1.0 crashes per year
<p>High Speed <i>The rating of the high speeds would be based upon the 85th percentile recorded vehicle speeds of the carriageway adjacent to the site, if this data is unavailable the posted speed limit should be considered</i></p>	0 – Less than 20km/h 1 – Between 20km/h and 30km/h 2 – Between 31km/h and 40km/h 3 – Between 41km/h and 50km/h 4 – Between 51km/h and 60km/h 5 – Greater than 60km/h
<p>High Volumes <i>The rating of the high volumes would be based on the average vehicle flow in the peak hour of the carriageway adjacent to the site</i></p>	0 – Less than 200 vehicles / hour 1 – Between 200 and 400 vehicles / hour 2 – Between 401 and 600 vehicles / hour 3 – Between 601 and 800 vehicles / hour 4 – Between 801 and 1,000 vehicles / hour 5 – Greater than 1,000 vehicles / hour
<p>Site Opposite Roundabout <i>A site is ranked based on location compared to potential errant vehicle impact zones at a roundabout</i></p>	0 – Site not opposite a roundabout 1 – N/A 2 – N/A 3 – Local road roundabout 4 – Arterial road roundabout 5 – Multilane roundabout
<p>Site at Intersection <i>A site is ranked based on location compared to potential errant vehicle impact zones at an intersection</i></p>	0 – Site not at intersection 1 – N/A 2 – Give way controlled intersection 3 – N/A 4 – Stop sign controlled intersection 5 – Traffic signal controlled intersection
<p>TOTAL The aggregate score of the above characteristics and the level of risk would be as follows:</p>	0 – 9 Low Risk (no protection required) 10 – 19 Medium Risk (consider protection) 20 – 30 High Risk (protection required)



Typical Vehicular/ Pedestrian Conflict Areas

The diagram above shows a typical application of these principles in the location of bollards.

Bollard Location Principles

Bollards are a common design element used to minimise risk to pedestrians. The location and type of bollards within the Precinct will be determined by the risk matrix. The primary reason for use will relate to the risk of vehicular/ pedestrian conflict areas as discussed previously. Additional risk factors may include crash history, traffic volumes and intersection types.

The following principles will be used in the design of pedestrian protection systems:

- Delineation of parking spaces
- Protection of built assets e.g. trees / verandah / posts / artwork / signage / furniture
- Crash impact protection for outdoor dining
- Risk management approach to selections and locations balancing security and access with beauty
- Malicious vehicle use is low risk
- Accidental / errant vehicle is a more probable risk, but still remains low
- Crash history involving pedestrians is low - project environment has low vehicle speed
- Risk acceptance will influence the extent of bollards along the street

- **Corners and intersections**
 - Higher risk area
 - Energy absorbing bollard
 - Closer spacings
- **Mid-block - fixed**
 - Lower risk area
 - Rigid fixed bollard
 - Wider spacings
- **Mid-block - On-street parking**
 - Lower risk area
 - Removable bollard
 - Wider spacings
- **Mid-block - Outdoor dining**
 - Lower risk area
 - Removable bollard
 - Wider spacings

Realising the Vision

The community engagement process to date has achieved a high level of community, trader and landlord consensus towards a new streetscape that is beautiful, accessible and active. In developing the detailed design to achieve this vision, the ambition reflected in the final design has resulted in a new look for the street, with flexible urban spaces, two new pedestrian crossings, lush greening, smart technologies, high quality public furniture and public art.

The detailed design demonstrates the community's vision for Adelaide's most loved Main Street.

The expected budget for the approved design as presented is expected to be in the order of \$10.5 million.

Key features included in the budget

- All paved solution
- Continuous tree canopy
- Opey and Bloomsbury streetscape
- Walter streetscape
- Side street crossovers
- Two pedestrian crossings
- Street lighting
- Smart parking
- Unique street furniture
- Integrated public art
- Feature lighting (artwork up-lighting)
- Discovery trail
- Additional art pieces

Project Implementation

During the stakeholder consultation and detailed design process a number of key issues relating to the construction program including:

- Exploring additional parking opportunities within the precinct to offset the proposed reduction in on-street spaces
- Providing a clear and accurate project construction time frame aligned to quieter trade periods
- Providing specific communication regarding localised business disruption, duration and extent
- Providing a tailored construction methodology to reduce the impact on trade and finish all of the works as quickly as practicably possible
- Establishing a partnership between Council and landlords to achieve co-ordinated development of rear parking lots to improve accessibility and capacity

Next steps

September - December 2018

- Documentation of streetscape works
- Trader engagement into detail construction planning
- Staged budget and documentation review
- Early contractor engagement

December 2018

- Open tender for streetscape construction works

Early 2019 Onwards

- Council to award the streetscape contract
- Reconstruction commencement

07 REALISING THE VISION