

Title	Final Report	Lead Consultant	Hatch RobertsDay (Urban Design, Transport and Landscape Architecture)	
Project	Belvidere Street Revitalisation Plan	Civil Engineering	Pritchard Francis	
Prepared For:	City of Belmont	Cost Estimates	Rawlinsons	
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Version:	С	<u> </u>		
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Introduction

The Belvidere Street Activity Centre Revitalisation project aims to transform the public space within the Belvidere Street Activity Centre into a vibrant main street, which balances movement and attracts private investment into an important local hub. The Project Objectives are outlined on the right.

The City of Belmont has engaged consultants Hatch Roberts Day to lead a team of consultants in the preparation of a Concept Plan for the Belvidere Street Activity Centre.

While the Centre has 'good bones' and a reasonable mix of local retail and food and beverage offerings, it can feel unsafe and unattractive to people. This is evident in both the public and private realm interfaces, highlighting the importance of the Concept Plan for transforming the streetscape and acting as a catalyst for investment on private land.

This report documents the proposed Concept Plan, including the analysis, guiding principles, design testing and community consultation findings that informed the plan.

The Site Analysis comprised Public Life Analysis, traffic and parking analysis to understand and document the movement and place attributes of the street. Public life was confirmed as lacking, with little to no reason for people to spend time within the street. The parking analysis findings were particularly important, revealing a surplus of parking within the centre, while the traffic analysis highlighted speeding and rat running as problems.

The analysis shaped a series of guiding principles that were use to test three design scenarios, ranging from lower cost and intervention through to higher cost and intervention. Community feedback was overwhelmingly in favour of the latter and in particular Scenario 3 which proposes a low speed shared street environment with a new green space heart.

The preferred Concept Plan is documented within the report, including 3D visualisation. A 3D fly through can be viewed here. The Concept is intended to progress to detailed design and delivery, most likely on a staged basis with Gardiner to Leake Street providing a logical stage 1 that does not rely on the prior undergrounding of power by Western Power.

Project Objectives

- To act as a catalyst for private development
- To attract high quality businesses
- To enhance safety, image and brand
- 4 To instil community pride
- To attract residential development
- 6 To activate the street
- 7 To balance movement and place

Subject Site

The subject site is located within the Belvidere Street Activity Centre core area between Keymer Street and Leake Street as shown below. While the revitalisation plan focuses on the public realm, it also takes into account adjacent private land and the all important interface condition that influences the look and feel of the street. In response to public advertising, a major landowner came forward to confirm their imminent intentions for an expansion of the Activity Centre to the south-west between Somers and Keymer Streets.

They highlighted the importance of a coordinated planning approach over private and public land. The City is continuing to liaise with the landowner to ensure appropriate integration of design and staging .

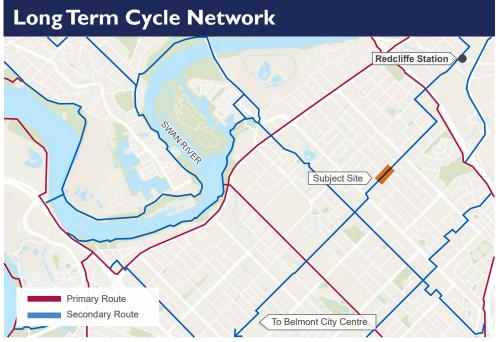


Movement Network



Belvidere Street Activity Centre is strategically located on the 935 circle route, with 10 minute peak time services north to Redcliffe train station (10 minutes) and south to Perth City Centre (40 minutes) terminating at Kings Park. Two bus stops and embayments are located within the subject site, one in each direction.

The opportunity for Belvidere Street is to maintain bus routes on the street and slowing vehicle speeds through the removal of bus embayments, in turn creating more space for people.



Belvidere Street is also identified as a Secondary Route within the Department of Transport's Long Term Cycle Network (LTCN), which was endorsed by the City in 2020. Secondary Routes provide connectivity between Primary Routes and major destinations such as shopping precincts, industrial areas or major health, education, sporting and civic facilities.

These routes typically support a large proportion of commuting and utility type trips, but are used by all types of bike riders, including children and novice riders. Belvidere Street forms a small part of a broader east-west cycling corridor linking the Tonkin Highway Principal Shared Path (PSP) to the Town of Victoria Park. The opportunity is to significantly improve the cycling environment within the Activity Centre, as part of short and long term opportunities to improve the route generally, particularly the northern extent to Redcliffe train station.

Local Policy Context

The project is aligned to six City plans and strategies. Outcomes aligned to the project are outlined below:

Belvidere Main Street Precinct Design Guidelines

- Promote redevelopment of private land
- · Focus activity at street level
- Streetscape enhancements

Sustainable Transport Plan 2019-2023

- Improve connections to Redcliffe Station
- Improve pedestrian crossings within the centre
- · Reduce posted speed limits
- Rationalise parking and vehicle access

Community Placemaking Strategy 2018-2023

- Support community led placemaking
- · Promote high quality public open spaces
- · Accessible and inclusive place activation
- Celebrate Belmont's diversity and rich history
- Placemaking that supports local business

Strategic Community Plan 2020-2040

- + 9,467 dwellings by 2020-2041
- Vibrant, attractive, safe and sustainable activity centres
- Accessible, efficient and sustainable movement network
- Clean and green
- · Support arts and culture
- Collaboration

Access and Inclusion Plan 2022-2026

- · Cater for residents living with disabilities
- · Access and inclusion included at all stages
- Leadership in the design of City buildings and facilities

Belvidere Street Environmental Considerations

- Reticulated sewage and free drain soils
- · Low-moderate risk for Acid Sulfate Soils
- No significant vegetation

Public Life Analysis

Key Findings

To assist with the design process, the project team undertook a Public Life Analysis to see how people use the area currently. The findings are summarised below. **Refer to Appendix 1 for the full analysis.**



Limited street activation due to shop frontages remaining shut and caged. Creates an intimidating environment.



Shopping centre and café generates most activity, but people do not stay and spend time in the public realm.



Anti social behaviours reduces sense of safety, especially at night.



Reasonable sense of community, but unattractive and uncomfortable public realm.



Very few reasons for people to stay and spend time in the street. Limited shade and greenery



Speeding traffic is dangerous for parked cars backing out, as well as pedestrians and cyclists.



Overhead powerlines dominate the streetscape on the northern side of the street. Conflicts between reversing parked cars, pedestrians and passing traffic



Typical narrow footpaths with no space for alfresco and places to stop, rest and socialise. Inactive shopfronts and roller doors undermine perceptions of safety and streetscape quality.



Bus stop was the only location where people were observed spending time on the street. No street trees or shade



Alfresco currently provided is very well used, with the parklet demonstrating demand for additional footpath space for this purpose

Parking Analysis

Key Findings

To determine how vehicles used the space, the project team undertook a Parking & Traffic Analysis. Key findings are summarised below. Refer to Appendix 2 for the full analysis.

Total of 204 parking bays

85% of cars park for less than 2 hours

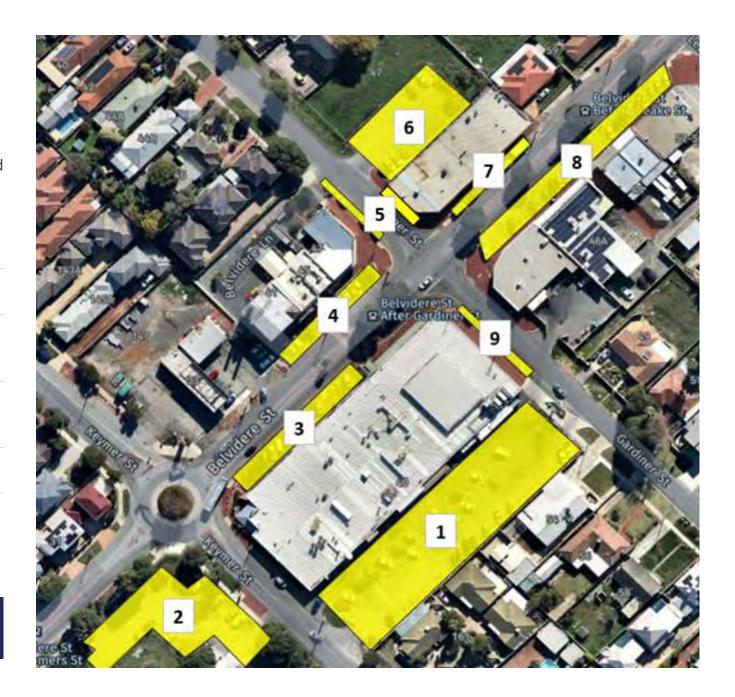
Zone 3 and 4 recorded highest level of occupancy, being located closest to the supermarket and tavern

Zone 7 and 8 comparatively less utilised except on Saturdays (presumably due to the cafe)

Zone 1 car park rarely exceeds 50% usage

Zone 2 overflow car park was much busier on Friday afternoon (possibly due to the tavern) compared to Saturday (max 46% usage)

Key take out: there is a substantial surplus of parking within the centre.



Traffic Analysis

Key Findings

Refer to Appendix 3 for the full analysis.

6890 vehicle per day

The vast majority of vehicles are not stopping at the centre

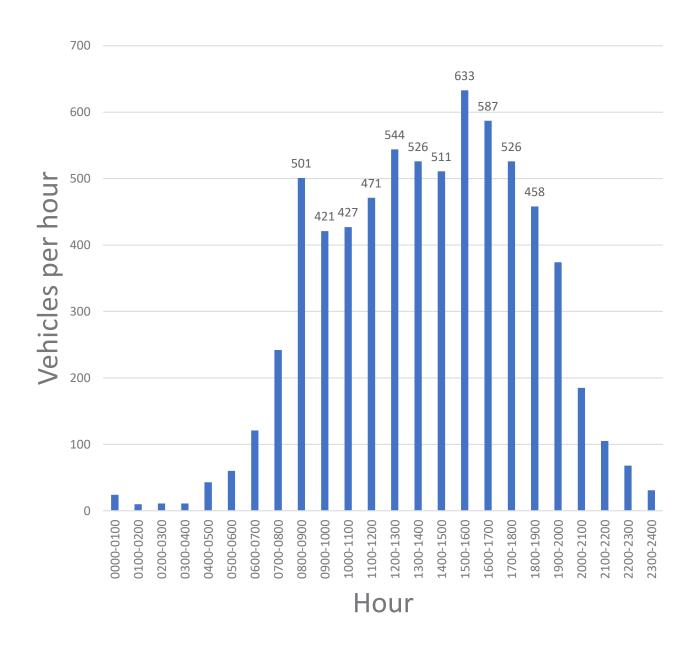
99% of vehicles drive below the posted speed limit of 50km/hr

The dominant vehicle speed is 20-30 km hr (47%)

35% of vehicles traveling above 30km/hr, with some dangerous 'hoon' driving

Key take outs: Belvidere street appears to be used as a 'rat-run'

A large proportion of vehicle speeds are excessive for an activity centre main street environment



SWOT Analysis

Strengths

- Space
- Building Setbacks
- Engaged Community
- Rear loaded parking
- Other linkages through to Stanton and Redcliffe Station / Airport
- No immediately apparent need to relocate services
- "Stage"-able and easy to divert traffic around / through during works

Opportunities

- · Slow traffic
- · Increase visitation
- Add greenery and amenity
- · Prioritise pedestrians and cyclists
- Enhance safety and image
- · Create a point of difference

Weaknesses

- Traffic Speed
- Buildings don't contribute to attractive streetscape
- · Not a particularly pleasurable journey on foot
- · Lots of blank walls
- · Lighting amenity

Threats and Constraints

- Overhead power
- Existing Trees
- · Carriageway needs to cater for bus route
- · Apparent lack of safety in permeable pedestrian linkages
- Ability to activate deep planting zones.
- Need to facilitate turning right of access vehicles namely semi trailer for petrol station

Scenario Guiding Principles

Following a summary of key findings from the technical studies, six key principles have been used to guide the design scenarios



Slow Traffic



Increase Visitation



Add Greenery and Amenity



Prioritise Pedestrians and Cyclists



Enhance Safety and Image



Create a Point of Difference

Scenario Testing



Scenario I

- Retention of overhead power-lines
- Footpath widening adjacent to supermarket and tavern
- Some landscape, lighting and CCTV improvements
- Lower intervention and Cost



Scenario 2

- Under-grounding of power-lines
- Footpath widening throughout
- Significant landscape and lighting improvements + additional CCTV
- Protected cycle lanes as part of future cycle network improvements
- · Higher Intervention and cost
- Some landscape and lighting improvements



Scenario 3

- Under-grounding of power-lines
- Small park and community focal point
- Slow speed shared space that prioritises pedestrians and cyclists
- Significant landscape and lighting improvements + additional CCTV
- Higher Intervention and cost

Scenario I





Slow Traffic

- 1. Traffic calming (+ 40km/hr speed limit)
- 2. Some narrowing of vehicle space
- 3. Bus stop in traffic lane

Prioritise Pedestrians and Cyclists

- 8. Raised pedestrian crossing
- 9. Limited footpath widening (and wall removal)

Increase Visitation

4. Limited new flexible alfresco and public seating areas

Enhance Safety and Image

- 10. Limited additional people presence within street
- 11. New Lighting on this side of the street
- 12. Additional CCTV
- 13. Limited improvements to streetscape look & feel

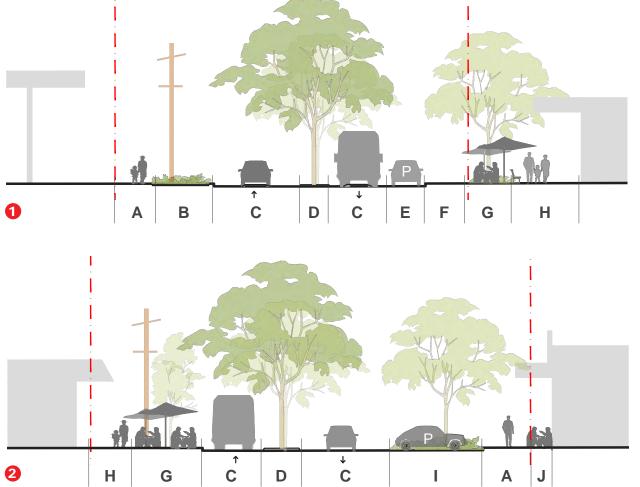
Add Greenery and Amenity

- 5. Median tree planting
- 6. Shrub and tree planting (replacing some parking)
- 7. Some small tree planting near overhead powerlines

Create a Point of Difference

14. Road surface artwork

Scenario I



- A. Existing footpath width
- B. Verge shrubs
- C. Travel lane
- D. Median trees
- E. Parallel parking
- F. Underground services
- G. Alfresco and public seating
- H. Footpath widening
- I. Nose-in parking retained
- J. Limited alfresco



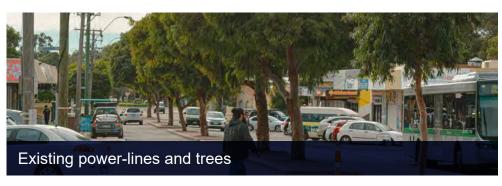
Belvidere Street Revitalisation Plan

Scenario I

















Slow Traffic

- 1. Traffic calming (+ 30km/hr speed limit)
- 2. Narrower vehicle space (carriageway and trees)
- 3. Tighten intersection geometries
- 4. Bus stop in traffic lane

Prioritise Pedestrians and Cyclists

- 11. Zebra crossings at raised side streets
- 12. Raised pedestrian crossing
- 13. Cyclist priority on raised side streets
- 14. Dedicated cycle lanes through roundabout
- 15. Overall footpath widening (& wall removal here)

Increase Visitation

- 5. On street parking bays
- 6. Significantly improved cyclist access and parking
- 7. Flexible alfresco and public seating areas

Add Greenery and Amenity

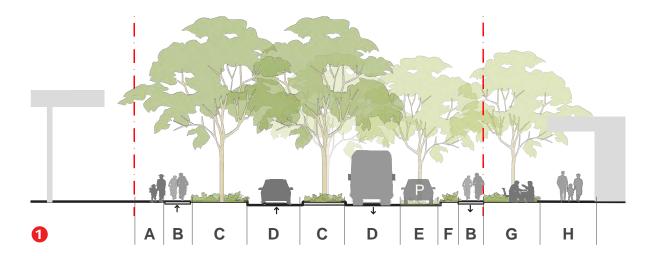
- 8. Median tree and shrub planting
- 9. Verge tree and shrub planting
- 10. Parking nib tree and shrub planting

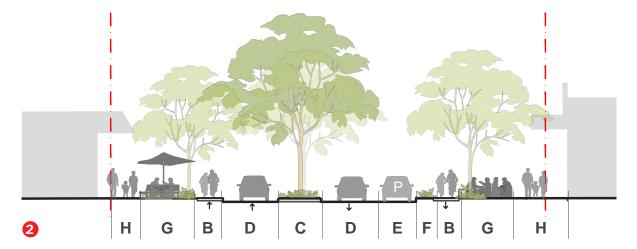
Enhance Safety and Image

- 16. Replace all reversing parking with parallel bays
- 17. Enhanced people presence within the street
- 18. Enhanced streetscape look and feel
- 19. New Lighting throughout the street
- 20. Additional CCTV

Create a Point of Difference

21. Highly pedestrian and cycle friendly





- A. Footpath
- B. Cycle path (footpath level. 1 way each way)
- C. Street trees and shrubs
- D. Travel Lane
- E. Parallel parking
- F. Buffer/underground services
- G. Alfresco and public seating
- H. Footpath widening



















A Slow Traffic

- 1. Traffic calming (+20km/hr speed limit)
- 2. Offset intersection to force cars to slow down
- 3. Narrower vehicle space (carriageway and trees)
- 4. Bus stop in traffic lane

Prioritise Pedestrians and Cyclists

- 13. Accessible flush surface shared space treatment
- 14. Cars give way to crossing pedestrians
- 15. Cyclists share space with cars in safe 20km/hr
- 16. Cyclist & pedestrian priority crossing at side streets

Increase Visitation

- 5. Flexible green space markets, movie nights, unstructured play and performances
- 6. Stage entertainment and flexible seating
- 7. Children's playground with nature play element
- 8. Flexible alfresco and public seating areas

Enhance Safety and Image

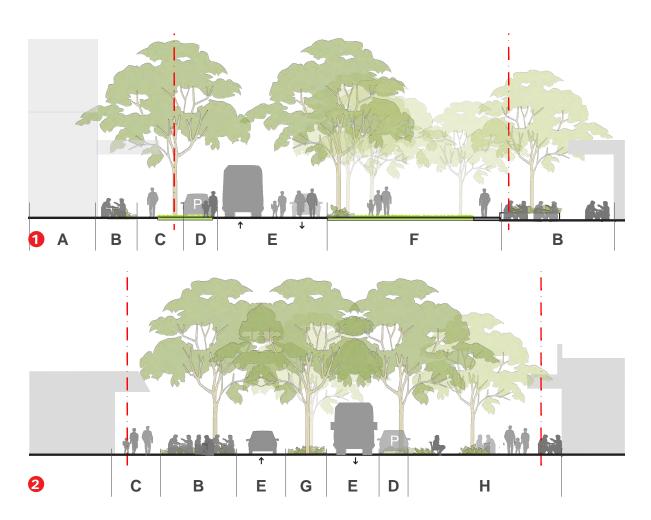
- 17. Replace all reversing parking with parallel bays
- 18. Significantly enhanced people presence within the street
- 19. Significantly enhanced streetscape look and feel

Add Greenery and Amenity

- 9. Small local park
- 10. Median tree and shrub planting
- 11. Verge tree and shrub planting
- 12. Parking nib tree and shrub planting

Create a Point of Difference

- 20. Community, entertainment, play and relaxation focus
- 21. Green and public art views on arrival
- 22. North facing tavern alfresco with direct frontage to park and performance space



- A. Potential future mixed use development
- B. Alfresco
- C. Footpath
- D. Parallel parking
- E. Shared space
- F. Green space
- G. Median trees and shrubs
- H. Alfresco, public seating and greening



Belvidere Street Revitalisation Plan 21













Additional Opportunities

Quick Wins



Ultimate Outcome



Potential Funding



City of Belmont Municipal Funding







Government of Western Australia Western Australia Bicycle Network Grants Program (WABN)







RAC Reconnect WA Program

Preliminary Cost Summary

	Scenario I	Scenario 2	Scenario 3
Demolition and New Works	\$650,000	\$2,863,000	\$3,724,000
Total Construction Costs	\$650,000	\$2,863,000	\$3,724,000
Design Contingency	\$65,000	\$287,000	\$373,000
Construction Contingencies	\$72,000	\$315,000	\$410,000
Professional Fees	\$119,000	\$416,000	\$541,000
Western Power Works P Sum	Excluded	\$1,843,000	\$1,843,000
Development Approval	\$12,000	\$12,000	\$13,000
Building Code of Australia Compliance	\$4,000	\$18,000	\$23,000
Public Artwork	Excluded	Excluded	\$46,000
Escalation (to Nov 2025)	\$135,000	\$841,000	\$1,019,000
Estimated Total Commitment (Excl. GST)	\$1,057,000	\$6,595,000	\$7,992,000

Refer to Appendix 5 for Cost Estimates.

Community Engagement Snapshot

169 responses to the survey were received, with strong support for the more ambitious Scenarios put forward.
Scenario 3 was considered best value for money (73%), including 52% strong support

Survey participants noted that there was a great difference in costs between Scenario 1 in comparison to Scenarios 2 and 3. Nevertheless, most participants agree that high investment in this project is needed in order to achieve real change and improvement in the long run.

Refer to Appendix 6 for the Community Engagement Summary.

"

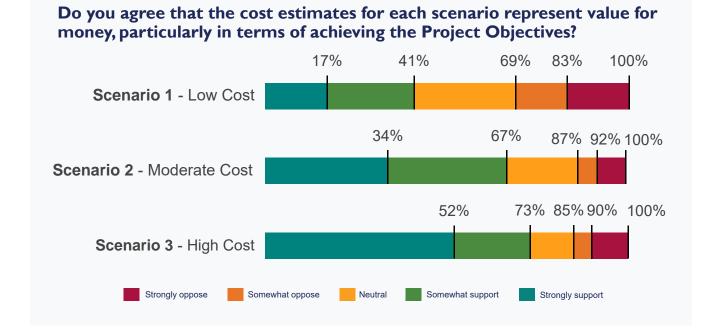
I believe with ongoing investment and careful planning this area can be a successful and desirable area for residents and the public in general. We are in a great location. "

How can this sort of money be justified? How will it be budgeted for? Will rates have to go up to pay for it? If this is the case City of Belmont should be transparent and advise everyone of this.

66

Although scenario three is more expensive, I think in the long run it will give more bang for it's buck, so to speak, and will vastly improve the area, helping to foster a better community environment.

"

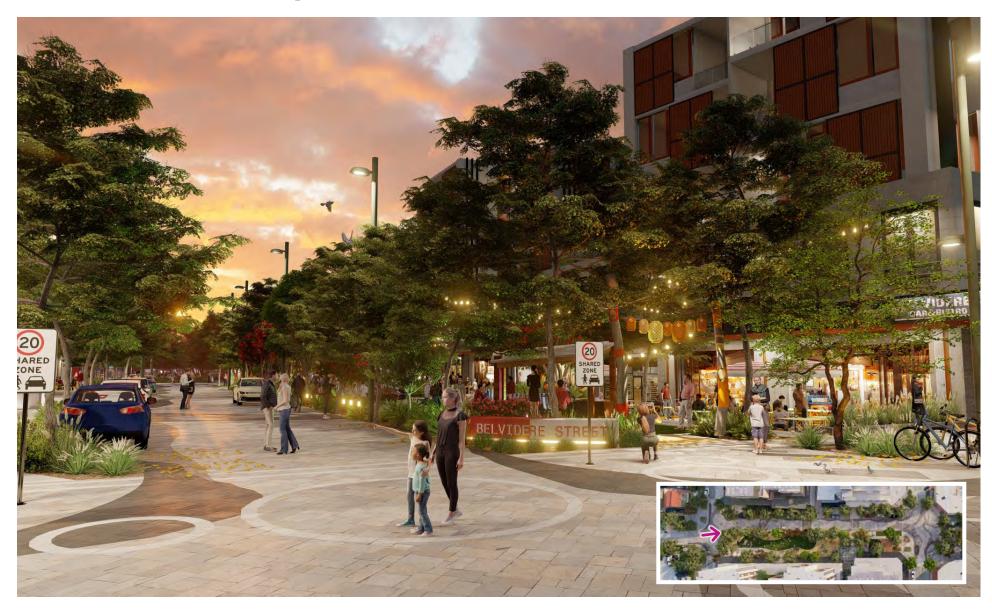


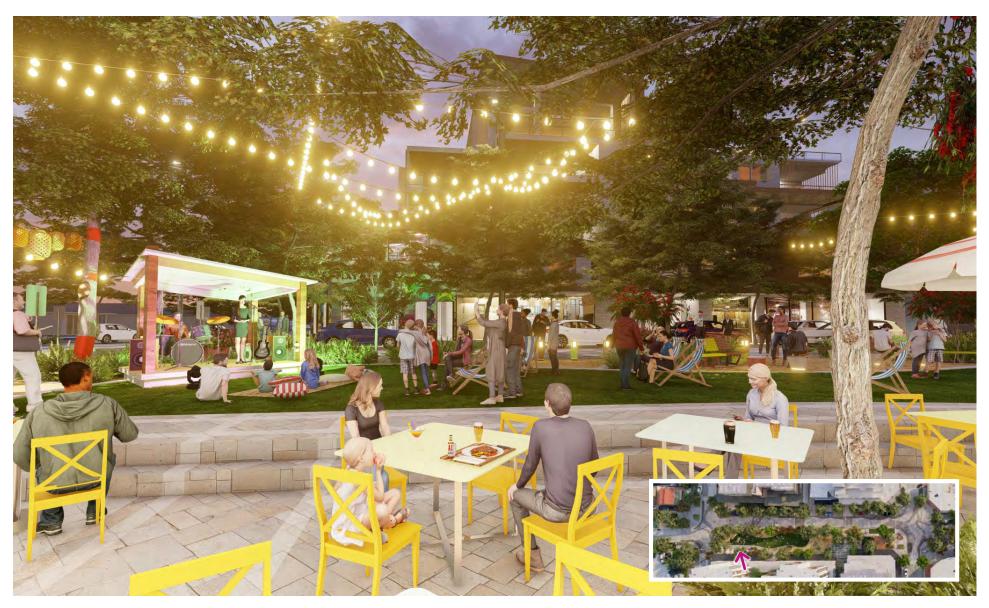
Belvidere Street Revitalisation Plan

Concept Plan - Keymer to Gardiner Street



Belvidere Street Revitalisation Plan













Concept Plan - Gardiner to Leake Street



Belvidere Street Revitalisation Plan

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Look and Feel - Gardiner to Leake Street



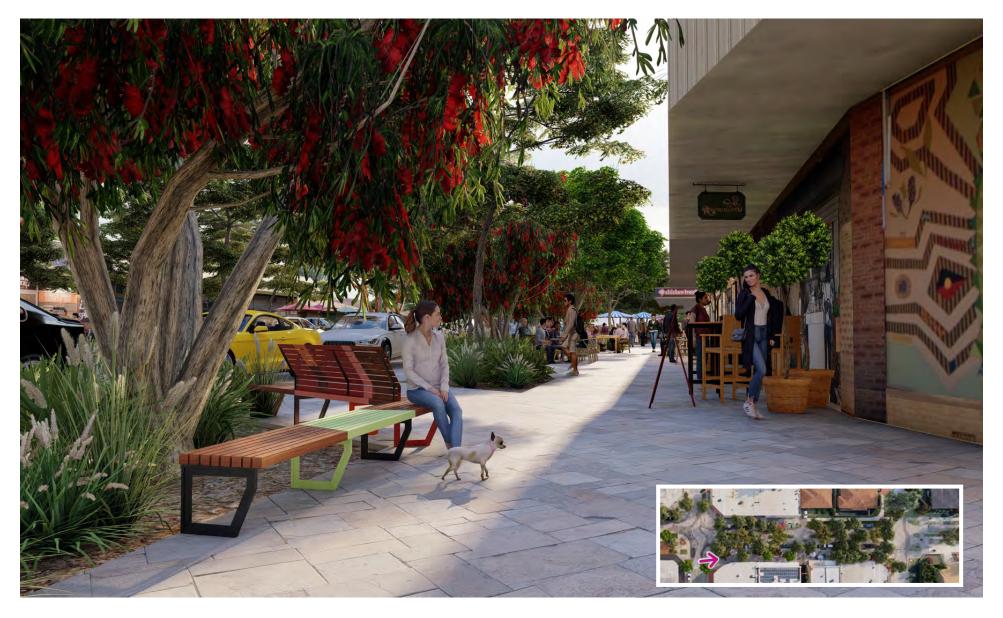
Look and Feel - Gardiner to Leake Street



Look and Feel - Gardiner to Leake Street



Look and Feel - Gardiner to Leake Street



Look and Feel - Gardiner to Leake Street



Look and Feel - Gardiner to Leake Street



Technical Considerations

MRWA

A meeting with MRWA was convened 22nd February 2023. While Belvidere Street is not under MRWA control, it was considered important to receive preliminary comments on the 3 scenarios, given endorsement will eventually be required for linemarking and signage. Detailed minutes are located on file, but key take-outs were:

Scenario 3

Scenario 3 was the preferred scenario, but more work is needed on transitions between shared space and 'normal' environments. Scenario 3 was selected as the preferred concept plan scenario.

Scenario 2

Further discussions would be required in relation to the orbital cycleway and zebra crossings and the pedestrian/cyclist priority side street treatments.

Scenario I

Further consideration was required on consistent roundabout design speeds and speed cushions.

PTA

PTA will need to be consulted prior to the commencement of detailed design. Likely key considerations and design responses are summarised below:

Travel lane widths

3.5m minimum widths are provided where there is no median, and 3.2m minimum where a median exists.

Green space manoeuvring

Sufficient space is provided within the shared space for vehicles to manoeuvre around the 2 x offset intersections at slow speeds. In the event that larger passing vehicles need to manoeuvre through the offset intersections at the same time, common sense shared space principles would apply. Refer to offset intersections in Hay Street space, Perth/East Perth.

Bus stop design

PTA has provided support on other recent projects for the removal of bus embayments, except for timed bus stops. These do not exist within the subject site. Removal of bus embayments will assist further with traffic calming and improve the bus driver and passenger experience.

Western Power

Undergrounding of power is a significant project risk in terms of costs and timing. Cost estimates were previously provided by Tabec Civil Engineers. These have been incorporated into the overall cost estimates prepared by Rawlinsons.

Notwithstanding costs, undergrounding of power was identified as a priority by the community in the survey, however the timing of this will largely be dictated by Western Power. This highlights the importance of the City continuing to do what they can to move the process forward with Western Power.

To help manage the timing risk, the Concept Design has been configured to ensure that a stage 1 between Gardiner and Leake Streets can be constructed with or without the power undergrounded. This will ensure that the project will not be delayed.

Staging and Delivery

Delivery can be broken into multiple stages to assist with managing power undergrounding risks, overall project costs and timing of the proposed private redevelopment.

The connected grid network assists greatly with traffic management. Careful planning is required to minimise disruption to businesses during construction.

Stage I

- Gardiner to Leake Street
- Can proceed with or without power undergrounded
- Opportunity to evaluate impact of streetscape works, particularly on safety and image

Stage 2/3

- Keymer to Gardiner Street / Somers to Keymer Street
- Timing will potentially coincide with proposed private redevelopment
- · Impacts on anchor tenant minimised



Belvidere Street Revitalisation Plan

Appendix I Public Life Analysis



Contents

- **Ol About**
- **02 Overview**
- 03 Movement
- **04 Behaviours**
- **05 Interviews**
- **06 Comments**
- **07 Observations**
- 08 Images
- **09 Key Findings**

Audit

Name

Belvidere Street Public Life Analysis

Location

Intersection of Belvidere Street and Gardiner Street, Belmont

Timeframe

Monday, 5th of September 11:45am - 1:45pm



About

Site Description

The audit undertaken observes the uses and behaviours of people on Belvidere Street in Belmont. In addition, surveys were undertaken to understand the current perceptions of the street and how the community would like to see the area evolve.

Belvidere Street contains a supermarket, a few commercial shops and a newsagency, that serves the surrounding community. In addition, the area is surrounded by residential properties which attract local residents into the area. This is highlighted throught the interviews conducted as most people that accessed the area by walking lived in properties nearby.

Methodology

The report captures quantitative data and qualitative information. Data was captured to understand how people currently interact and move through the space. This helps to identify what areas are working well and what needs to be improved. Conducting a survey of public areas helps us to understand when, where and why people are using public spaces.

The metrics that were utilised to conduct the audit include:

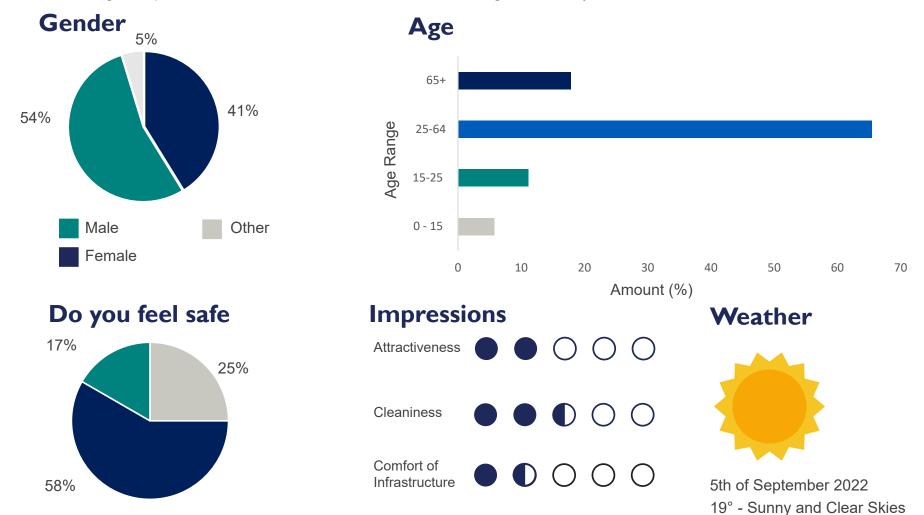
Movement: Capturing the demographic of people moving throughout the space and mapping their desired path.

Time in Place: Capturing the demographic who choose to spend time in the space by identifying what activities are undertaken, how long they are done for and where on the street this takes place.

Interviews: Understanding people's perceptions of the space and how they would like to see it transform through intercept surveys and conversations.

Overview

The following data provides an overview of the data collected throughout the day.



Friendly and

Welcoming

Public Life Analysis

No

Only during the day

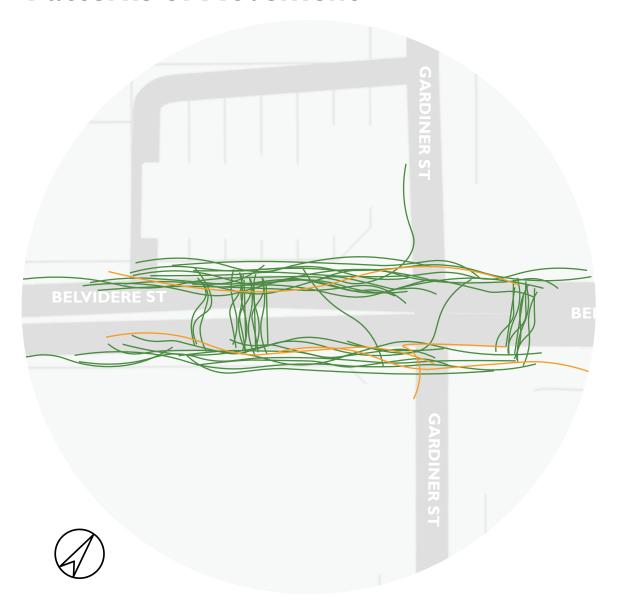
Location

The intersection of Belivdere Street and Gardiner Street, Belmont.





Patterns of Movement



Walking

Cycling

Other

Mode











94.64%

2.68%

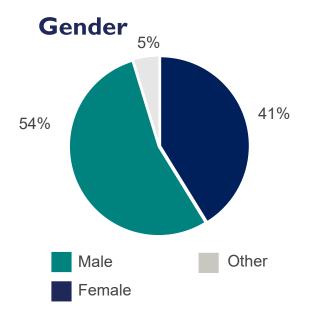
1.34% 0

39% 0.48

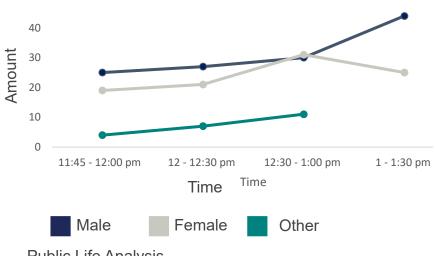
Take Outs

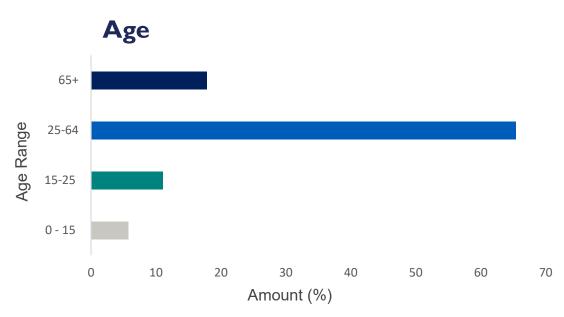
- Walking by far the predominant form of nonvehicle movement
- Very limited cycle movements
- Crossing concentrated along existing raised threshold adjacent to supermarket entry

Movement

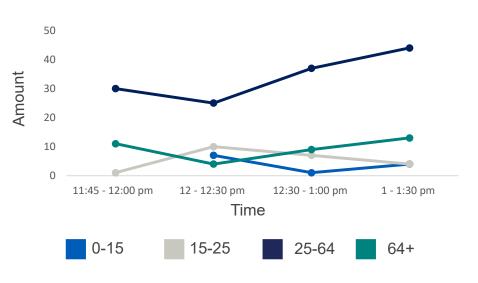


Gender across the day





Age across the day









23%

77%







54%

11%

35%





<10min 30min







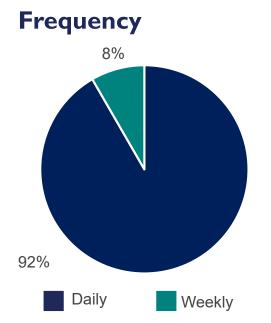


Take Outs

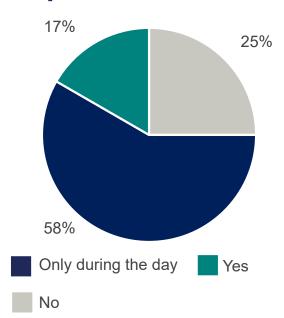
- People waiting for the bus dominant behaviour
- Otherwise, it was people stopping to talk to someone they knew
- Very limited lingering along street



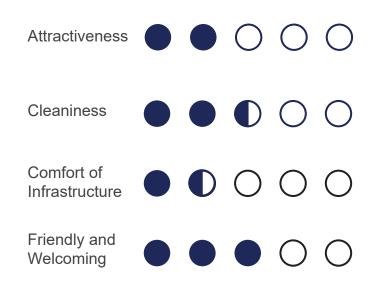
Interviews



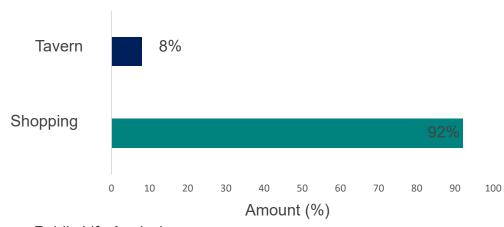
Do you feel safe



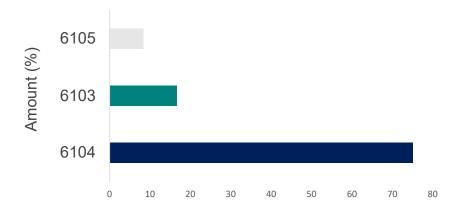
Impressions



Reason



Postcode



Public Life Analysis

11

Comments

Comments are provided by survey respondents on their experience with the space and how they would like to see the area transform.

Would like to see more café and sitting places

People drive fast along Belvidere street, makes it dangerous when people are pulling out

More coffee places

Increased greenery along the street

Dangerous behaviours around the area, makes you feel unsafe

There is friendliness found along the street – most people know each other, community feel

Low presence of safety particularly at night. People try and avoid the area

Anti- social behaviour has improved but still needs to get better

Usually I would prefer to shop at Belmont Form as it feels safer

Everything needs an upgrade due to buildings being developed a long time ago

Still need parking bays as old people rely on their car to drive here

When there are events and street parties run by the City it feels friendly and vibrancy

Observations

Auditors observations throughout the day are included to add to the quantitive data collected.

Large proportion of shops not open reduces the amenity of the area

Main mode of transport is the car. People go to their desired destination and leave, no lingering or cross pollination

Intersections are wide, makes it easy for cars to drive but dangerous for people crossing the street

People do not feel safe within the area, predominately at night. Shown within the built form – CCTV cameras, signs labelling there is 24/7 surveillance, shops that are closed bolted down – does not add to the surrounding amenity

Little infrastructure for people to sit – benches only outside public transport stop

Need to increase the amount of greenery, bare and barren landscape

Only one pedestrian crossing that leads into the main entrance of the supermarket

Images

The below images display how the street is used throughout the day



Street frontage dominated by cars



Wide intersections makes it difficult for pedestrians to cross



Limited pedestrian crossing forces people to compete with cars



Shop frontages shut and caged, limiting street activity



Waiting for public transport dominant behaviour along street



Wide roads and limited footpaths reduces the walkability of the area.

Key Findings

Limited street activation due to shop frontages remaining shut and caged. Creates an intimidating environment.

Shopping centre and café generates most activity, but people do not stay and spend time in the public realm.

Anti social behaviours reduces sense of safety, especially at night.

Reasonable sense of community, but unattractive and uncomfortable public realm.

Very few reasons for people to stay and spend time in the street.

Speeding traffic is dangerous for parked cars backing out, as well as pedestrians and cyclists.

Glossary



Walking



Waiting for public transport



Other behaviours. Includes waiting for an Uber, talking on the phone and riding a scooter



Cycling



Talking



Wheelchair user



Standing



Scooter user



Sitting

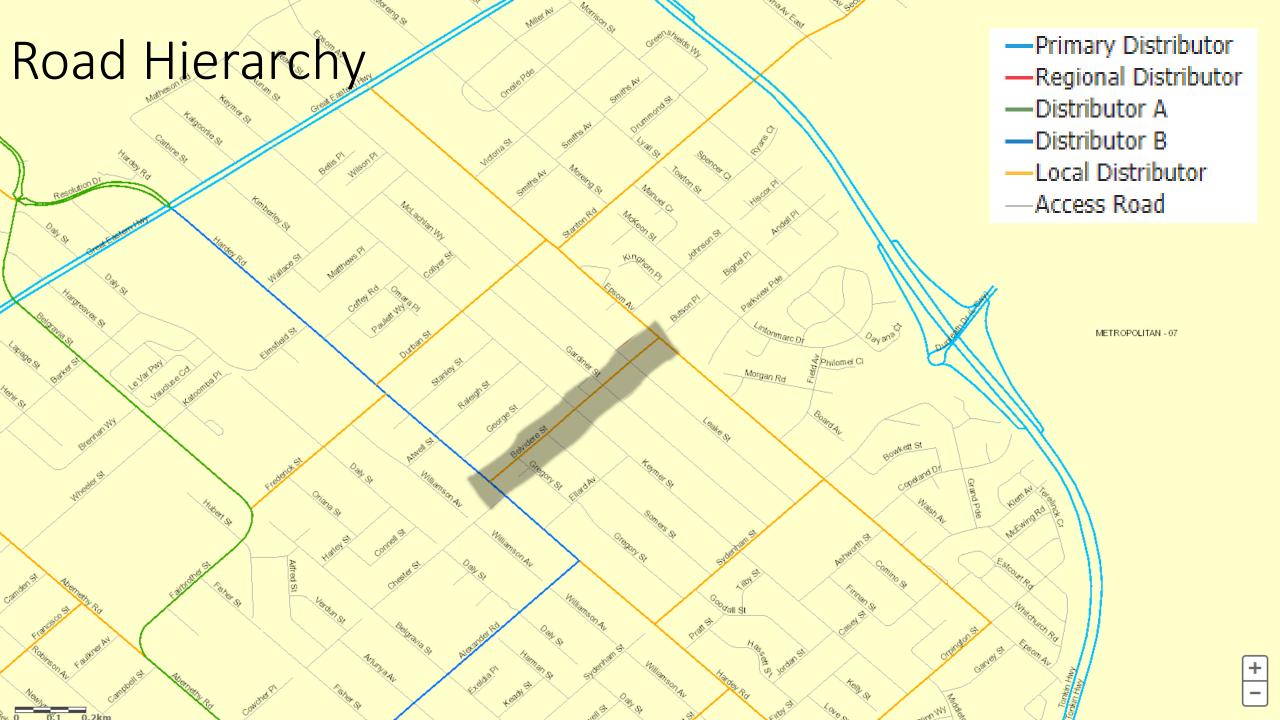


Mobility wheelchair



Bus Stop

Appendix 2 Parking and Traffc Analysis





Parking Audit

1: Shopping centre car park (90 bays)

2: Overflow car park (26 bays)

3: Angle parking in front of post office, pharmacy, bottle shop (15 bays)

4: Perpendicular parking in front of kebab/pizza shops (12 bays)

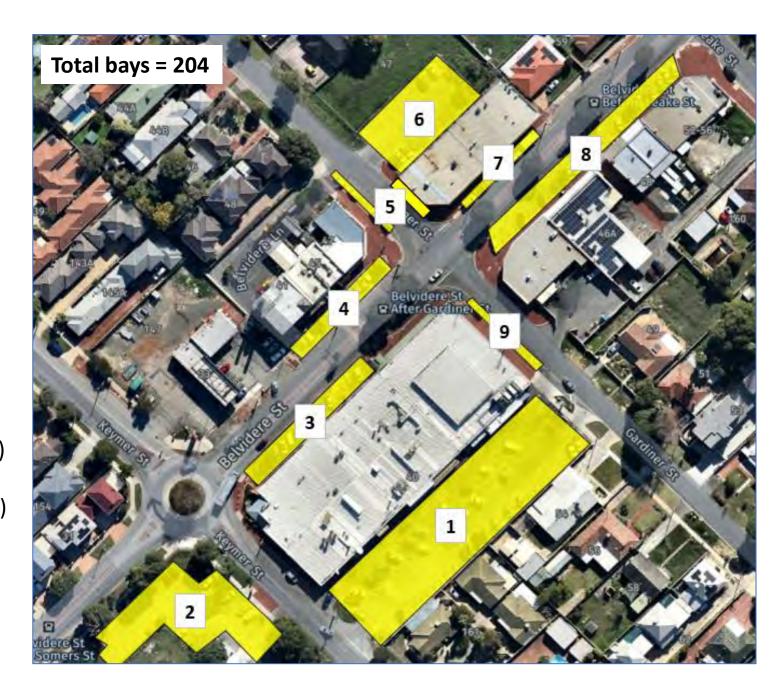
5: Parallel parking Gardiner Street North (6 bays)

6: Off street parking behind newsagency (22 bays)

7: Parallel parking in front of butcher/café (4 bays)

8: Angle parking in front chicken treat/fish shop (25 bays)

9: Parallel parking Gardiner Street South (4 bays)

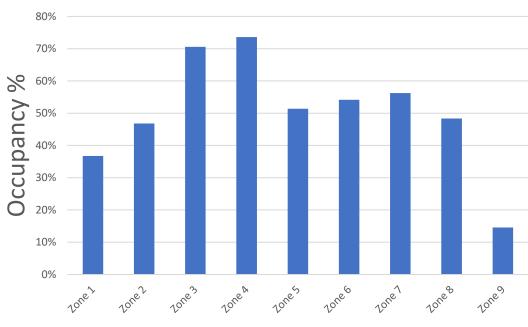


Parking occupancy by zone

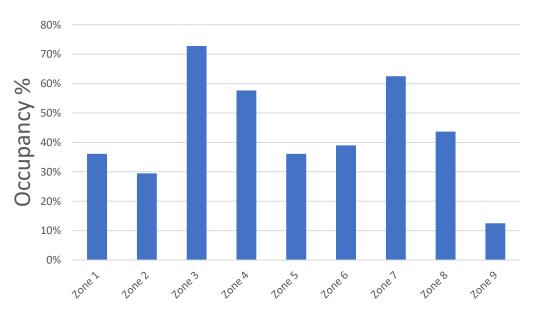
- Zone 3 and 4 exceed 70% occupancy on Friday.
- Zone 3 exceeds 70% occupancy on Saturday
- Zone 7 averages approximately 60% occupancy on both days.



Friday 16th September 2022

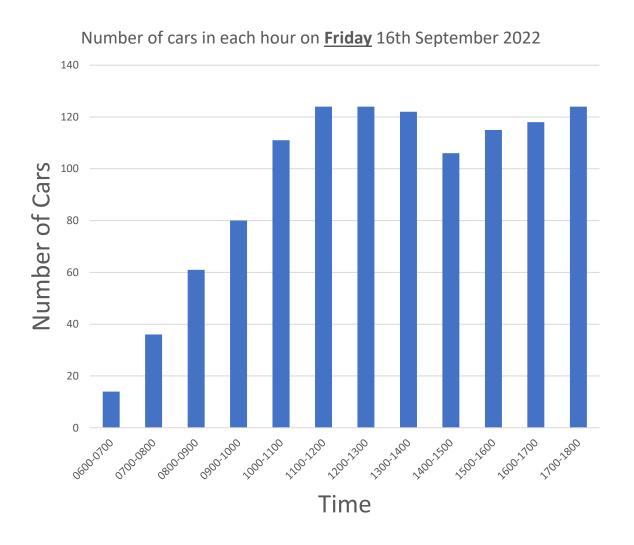


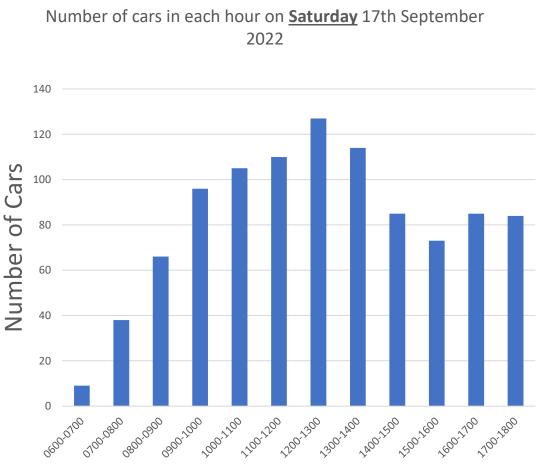
Saturday 17th September 2022



Parking occupancy by time of day

- Peak parking demand occurs around noon on both Friday and Saturday.
- Friday have a sustained afternoon demand, but Saturday's demand drops off after lunch.





Time

Parking occupancy by zone (Friday 16th September)

	0600-0700	0700-0800	0800-0900	0900-1000	1000-1100	1100-1200	1200-1300	1300-1400	1400-1500	1500-1600	1600-1700	1700-1800	Average
Zone 1	7%	18%	22%	32%	39%	49%	48%	42%	44%	43%	43%	53%	37%
Zone 2	4%	4%	15%	35%	46%	46%	58%	69%	54%	65%	88%	77%	47%
Zone 3	13%	33%	40%	80%	80%	93%	93%	73%	80%	87%	93%	80%	71%
Zone 4	0%	8%	75%	92%	100%	83%	83%	83%	92%	92%	100%	75%	74%
Zone 5	0%	0%	17%	50%	67%	67%	50%	50%	33%	100%	100%	83%	51%
Zone 6	14%	14%	23%	41%	73%	86%	68%	86%	68%	64%	45%	68%	54%
Zone 7	50%	75%	50%	50%	25%	100%	50%	75%	50%	75%	25%	50%	56%
Zone 8	0%	28%	56%	20%	68%	68%	84%	76%	32%	48%	48%	52%	48%
Zone 9	0%	0%	0%	0%	50%	0%	25%	25%	50%	0%	25%	0%	15%
Zone 1-9	7%	18%	30%	39%	54%	61%	61%	60%	52%	56%	58%	61%	46%



- Zones 3 and 4 (the on-street parking between Keymer and Gardiner Street) records the highest levels of occupancy.
- Zones 7 and 8 (the on-street parking between Gardiner and Leake Street) is comparatively less utilised.
- Zone 1 (the main Shopping Centre Car Park) rarely exceeds 50% occupancy.
- Zone 2 (Overflow Car Park) is busiest in the late afternoon.

Parking occupancy by zone (Saturday 17th September)

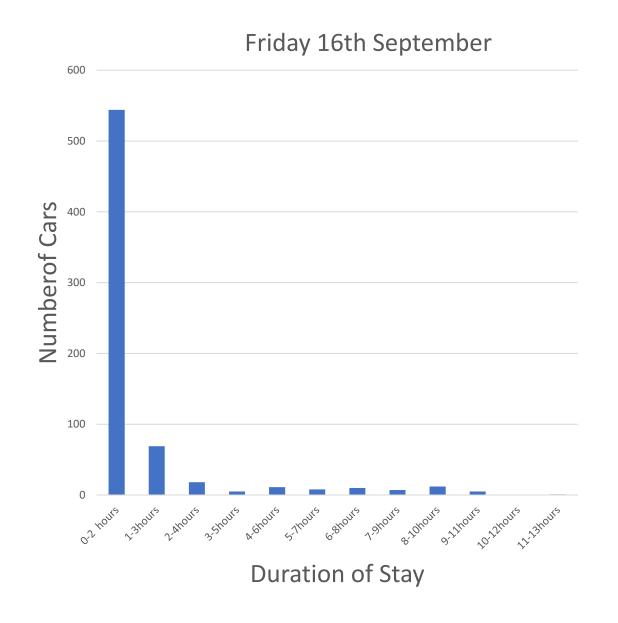
	0600-0700	0700-0800	0800-0900	0900-1000	1000-1100	1100-1200	1200-1300	1300-1400	1400-1500	1500-1600	1600-1700	1700-1800	Average
Zone 1	4%	20%	27%	36%	41%	50%	64%	48%	43%	30%	33%	37%	36%
Zone 2	0%	12%	23%	23%	23%	31%	35%	38%	38%	46%	46%	38%	29%
Zone 3	20%	60%	47%	87%	73%	93%	80%	80%	80%	73%	93%	87%	73%
Zone 4	0%	25%	33%	50%	92%	75%	67%	92%	42%	58%	75%	83%	58%
Zone 5	0%	17%	33%	67%	83%	33%	50%	67%	33%	0%	17%	33%	36%
Zone 6	9%	18%	36%	55%	45%	55%	59%	73%	32%	18%	32%	36%	39%
Zone 7	0%	0%	75%	100%	100%	75%	100%	100%	75%	25%	50%	50%	63%
Zone 8	0%	0%	48%	76%	72%	60%	80%	52%	28%	44%	40%	24%	44%
Zone 9	0%	0%	0%	0%	75%	50%	0%	25%	0%	0%	0%	0%	13%
Zone 1-9	4%	19%	32%	47%	51%	54%	62%	56%	42%	36%	42%	41%	41%

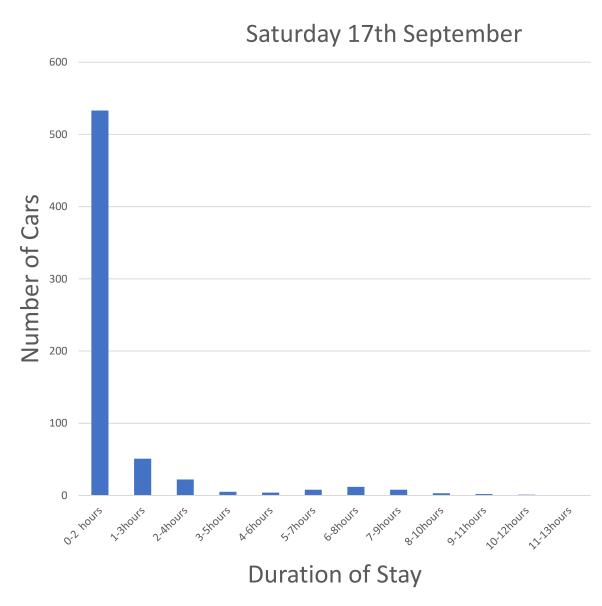


- Zone 3 (the on-street parking in front of the post office/pharmacy) records the highest levels of occupancy.
- Zones 7 is much busier compared to Fridays presumably due to F5 Café.
- Zone 1 (the main Shopping Centre Car Park) is much quieter compared to Friday.
- Zone 2 (Overflow Car Park) is much quieter compared to Friday.

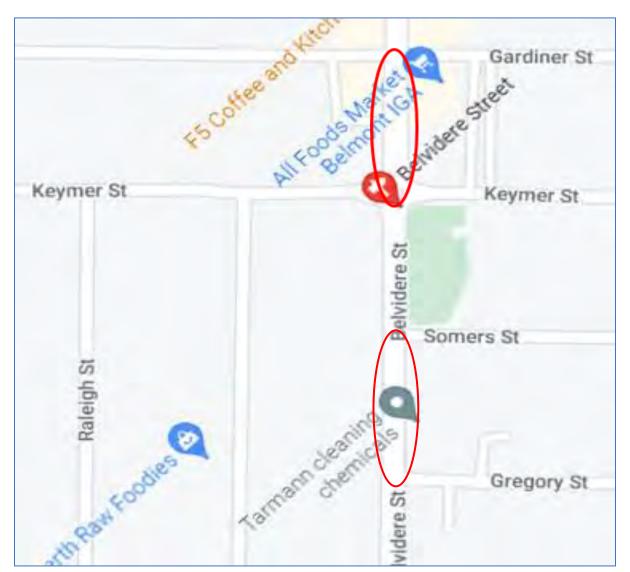
Duration of Stay

"Duration of Stay" represents how many times each vehicle was counted (sequentially by hour).





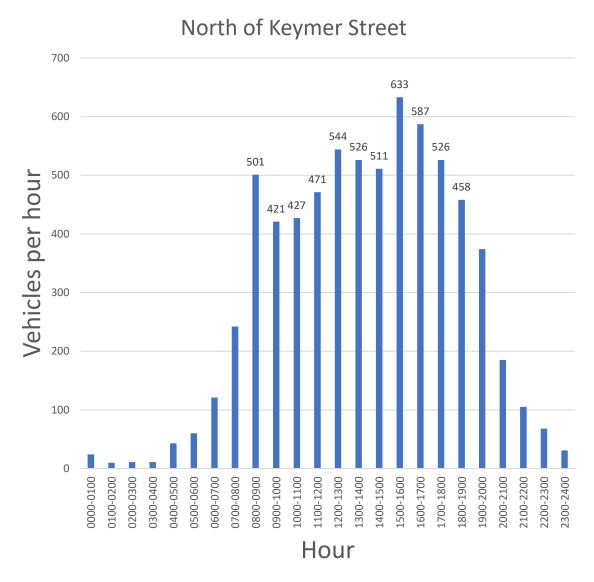
Traffic volumes and vehicle speeds

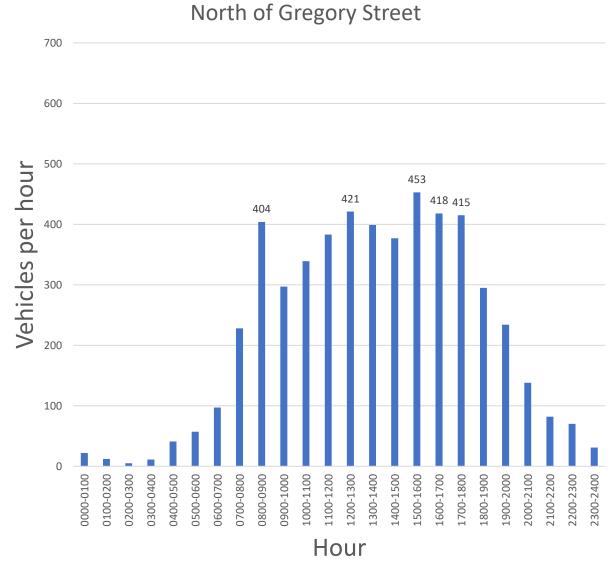


Location 1: Belvidere Street, north of Keymer Street

Location 2: Belvidere Street, north of Gregory Street

Traffic Volumes – Friday 16th September



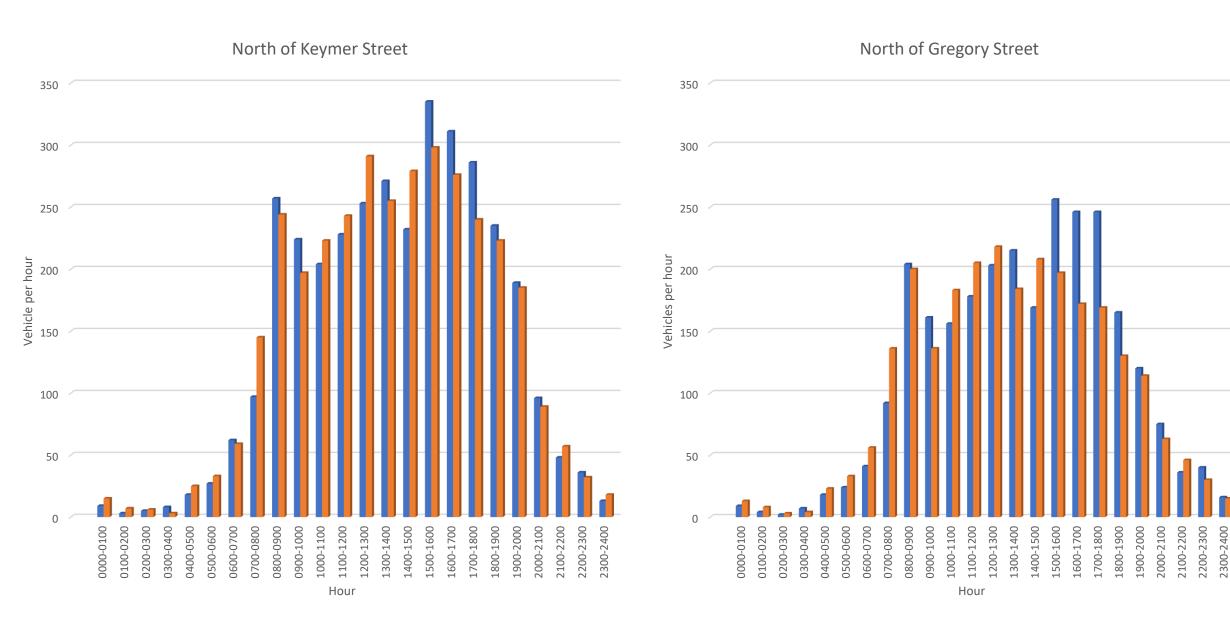


Total over 24hrs: 6890 vpd

Total over 24hrs: 5229 vpd

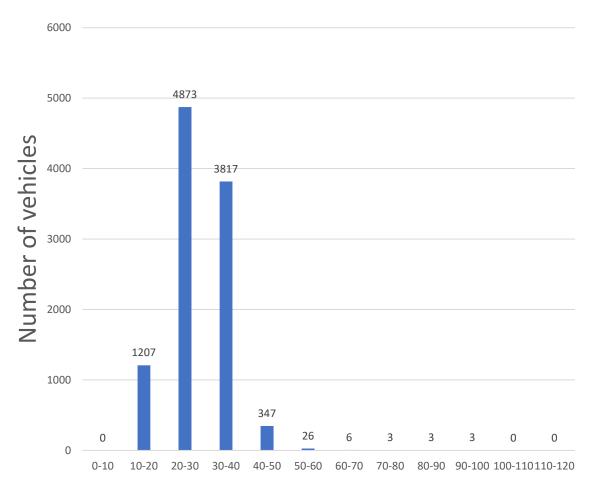
Northbound versus southbound traffic



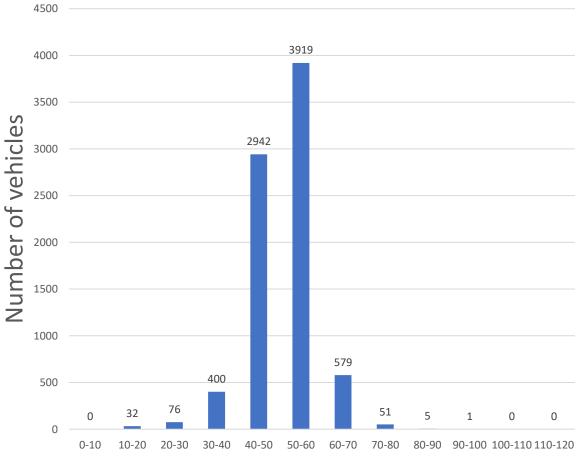


Speed compliance

North of Keymer Street, 99% of vehicles drive below the posted speed limit of 50km/h.

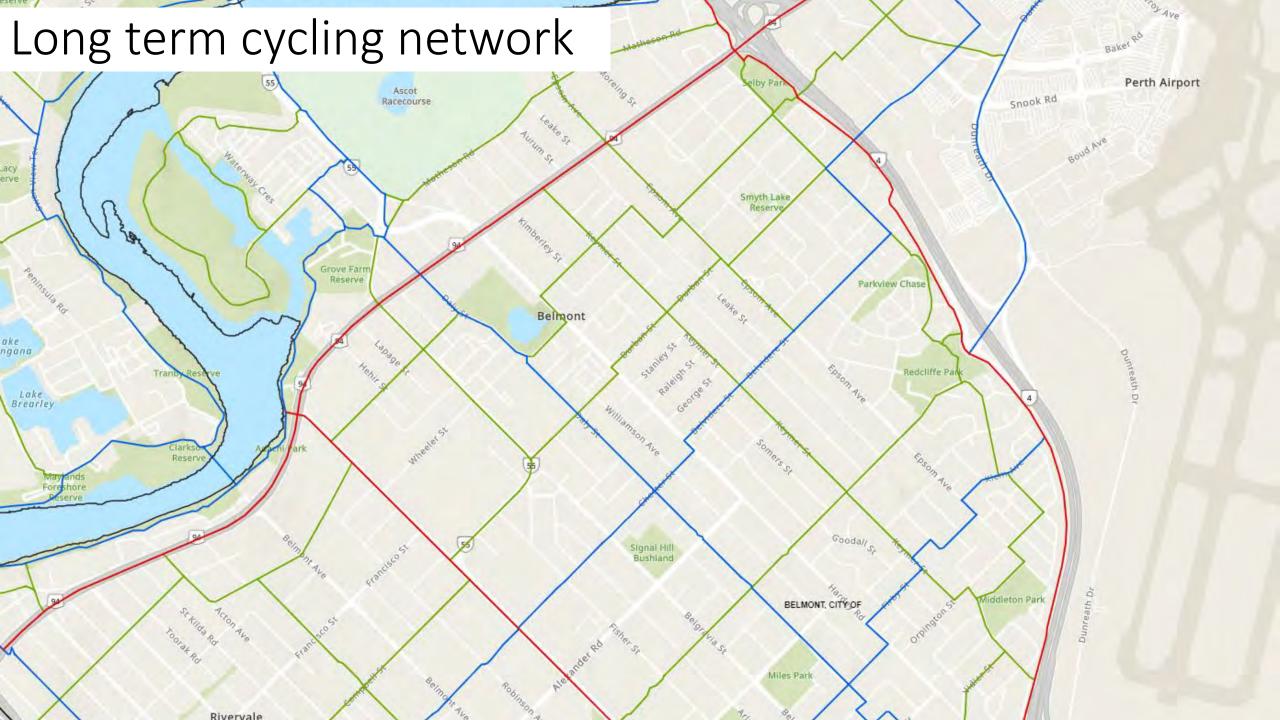


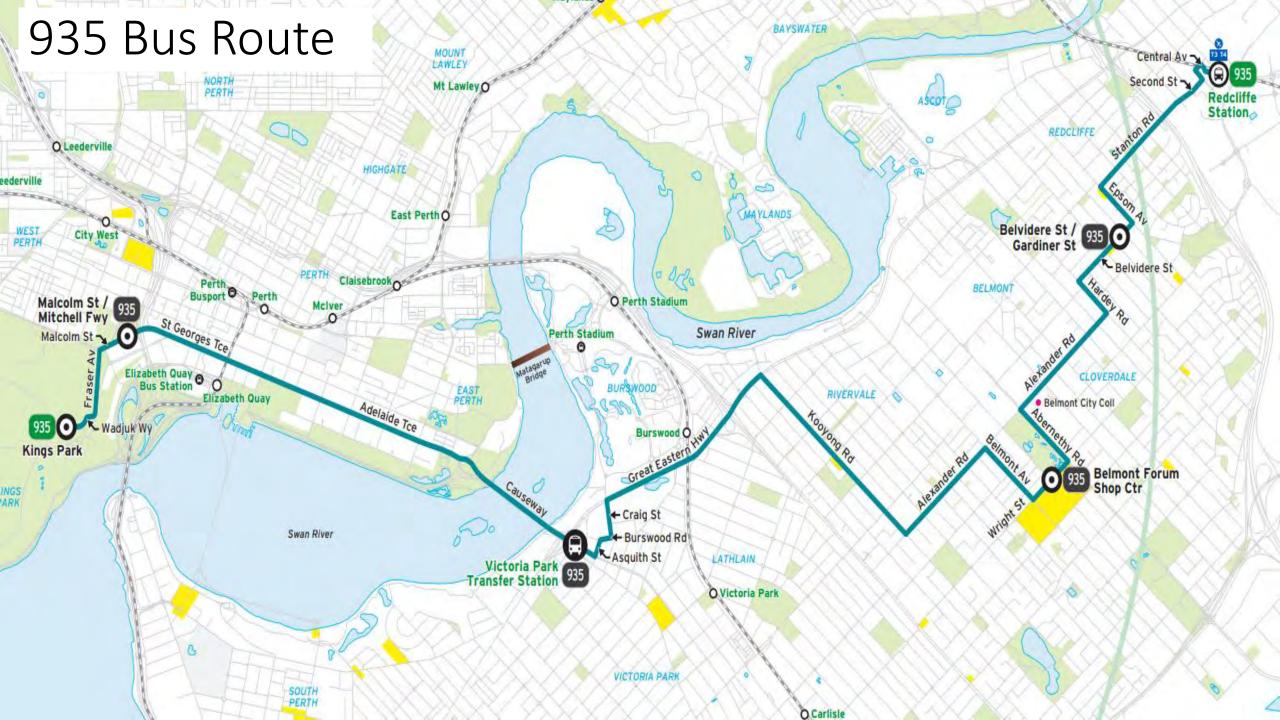
North of Gregory Street, only 43% of vehicles drive below the posted speed limit of 50km/h. A significant number of vehicles travel between 50km/h and 60km/h.



Speed

Speed





Appendix 4 Community Engagement Summary



Title	Belvidere Street Revitalisation Plan Community Engagement Summary - Survey Responses		
Project	Belvidere Street Revitalisation Plan		
Prepared For:	City of Belmont		
Status:	Final		
Version:	A		
Date Of Release:	07/03/2023		
Approved By:	Andrew Brodie		

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Introduction

Purpose of this Report

As part of the Belvidere Street Activity
Centre Revitalisation project the
community was given the chance to
provide feedback on the draft concept
scenarios for Belvidere Street. The
purpose of this report is to summarise
the community feedback and use it
as a guide to help select a preferred
concept scenario and/or combination of
scenarios.

A comprehensive Public Life, Parking and Traffic Analysis informed the formulation of key guiding principles for the revitalisation of Belvidere Street Activity Centre. In response, three concept scenarios were investigated and put forward for community consultation (refer to page 5). The aim of the consultation is not just to identify a preferred scenario but to also test draft analysis findings with the community and to drill down into specific features of each scenario to understand likes and dislikes.

Within the community engagement process, the three scenarios were published online and participants had the chance to provide feedback through a community survey. The survey was accessible online via Belmont Connect between Monday 5th December and 22nd January, 2023.

The survey received a strong response from a broad range of user groups with a total of 169 participants that filled out the survey and provided valuable feedback. In addition, there was one written submission that was handed in as part of the consultation process.

For most of the participants, this online survey was the first involvement they had in the revitalisation of Belvidere Street to date.

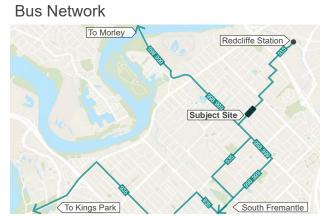


Background

Project Objectives

The Belvidere Street Activity Centre Revitalisation project aims to transform the public space within the Belvidere Street Activity Centre into an active main street which improves activation, balances movement and attracts private investment into an important local hub.

- To act as a catalyst for private development
- 2 To attract high quality businesses
- To enhance safety, image and brand
- 4 To instil community pride
- 5 To attract residential development
- 6 To activate the street
- 7 To balance movement and place









The 3 scenarios subject to the survey are summarised below:



Scenario I

- · Retention of overhead power-lines
- Footpath widening adjacent to supermarket and tavern
- Some landscape, lighting and CCTV improvements
- Lower intervention and Cost



Scenario 2

- Under-grounding of power-lines
- · Footpath widening throughout
- Significant landscape and lighting improvements + additional CCTV
- Protected cycle lanes as part of future cycle network improvements
- · Higher Intervention and cost
- Some landscape and lighting improvements



Scenario 3

- Under-grounding of power-lines
- Small park and community focal point
- Slow speed shared space that prioritises pedestrians and cyclists
- Significant landscape and lighting improvements + additional CCTV
- Higher Intervention and cost

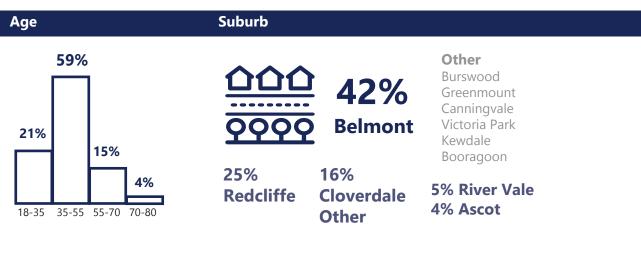
Survey Participants

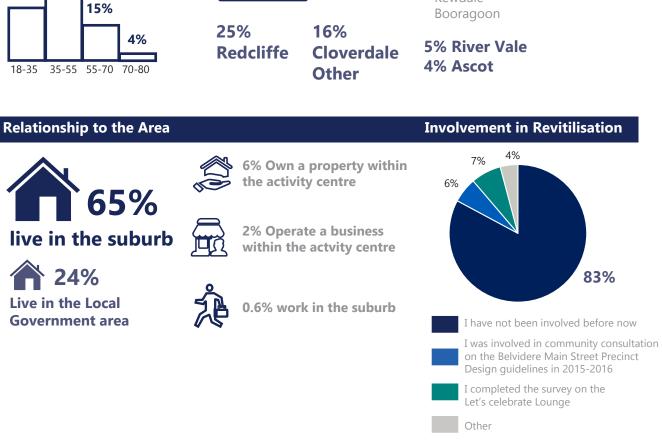
Respondent Snapshot

Within the engagement process, there were respondents representing most age brackets, with 35-55 representing the majority of participants (59%) and with about 21% of the respondents being under 35 years old.

Most of the participants live in immediate proximity to Belvidere Street such as in Belmont, Redcliffe or surrounding suburbs and therefore shared their daily experiences and local insights of the project area. The feedback was provided by residents, property owners, business owners, visitors or people that work within the Belvidere Street Activity Centre.

83% of the survey participants did not have involvement in any previous activity involved in the revitalisation of the centre.





Guiding Principles

Overall Ranking

As described previously, six key principles have been used to guide the design scenarios which reflect the key findings of the Public Life, Parking and Traffic studies conducted on site.

There was a strong support for the proposed Scenario Guiding Principles with a total of 144 participants (85%) that somewhat or strongly support and only 12 participants (7%) that somewhat or strongly oppose the key principles.



Slow Traffic



Increase Visitation



Add Greenery and Amenity



Prioritise Pedestrians and Cyclists



Enhance Safety and Image



Create a Point of Difference

Scenario Detailed Findings

Scenario I

Features that received support were:

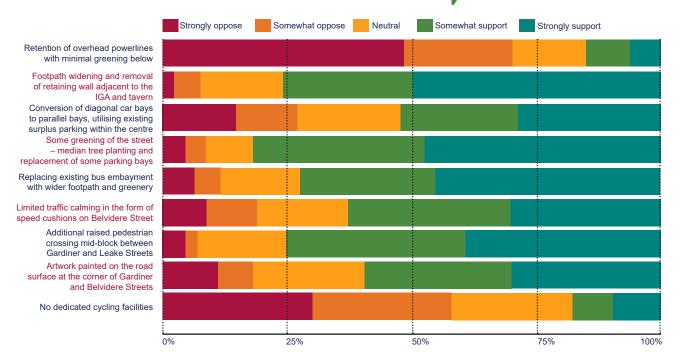
- Some greening of the street median tree planting and replacement of some parking bays to tree and shrub planting (82% strongly support/ support)
- Footpath widening and removal of retaining wall adjacent to the IGA and tavern (76% strongly support/support)
- Additional raised pedestrian crossing mid-block between Gardiner and Leake Streets (75% strongly support/ support)
- Replacing bus embayment with wider footpath and greenery (72% strongly support/support)
- Limited traffic calming in the form of speed cushions on Belvidere Street (63% strongly support/support)

The following features were ranked negatively:

- Retention of overhead powerlines with minimal greening below (70% strongly oppose/oppose)
- No dedicated cycling facilities (58% strongly oppose/oppose)

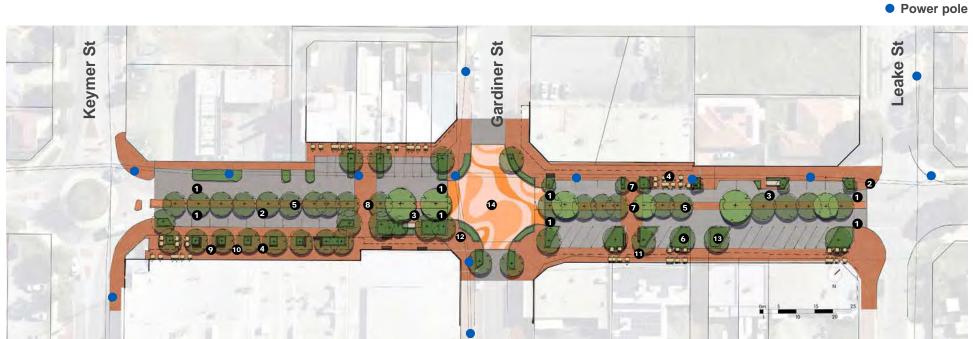
Although Scenario 1 has the lowest cost, I am not convinced it will have a big enough impact.

Please don't go the minimal intervention route - changing it up entirely would entice far more people to come to and stay in the area!



Belvidere Street Revitalisation Plan

Scenario I





Slow Traffic

- 1. Traffic calming (+ 40km/hr speed limit)
- 2. Some narrowing of vehicle space
- 3. Bus stop in traffic lane

A Increase Visitation

4. Limited new flexible alfresco and public seating areas



Add Greenery and Amenity

- 5. Median tree planting
- 6. Shrub and tree planting (replacing some parking)
- 7. Some small tree planting near overhead powerlines



Prioritise Pedestrians and Cyclists

- 8. Raised pedestrian crossing
- 9. Limited footpath widening (and wall removal)

Enhance Safety and Image

- 10. Limited additional people presence within street
- 11. New Lighting on this side of the street
- 12. Additional CCTV
- 13. Limited improvements to streetscape look & feel

Create a Point of Difference

14. Road surface artwork

Scenario Detailed Findings

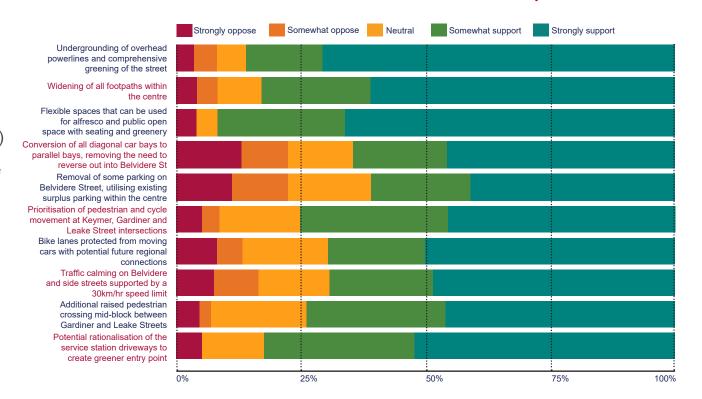
Scenario 2

The proposed design elements in scenario 2 generally received significant support by the respondents. Features that were most popular are:

- Flexible spaces that can be used for alfresco and publicly accessible open space with seating and greenery (92% strongly support/support)
- Undergrounding of overhead powerlines and comprehensive greening of the street (86% strongly support/support)
- Widening of all footpaths within the centre (83% strongly support/support)
- Potential rationalisation of the service station driveways to create greener entry point (82% strongly support/ support)
- Prioritisation of pedestrian and cycle movement at Keymer, Gardiner and Leake Street intersections with Belvidere Street (75% strongly support/support)

 Additional raised pedestrian crossing mid-block between Gardiner and Leake Streets (74% strongly support/ support) Scenario 2 represents the clearly best scenario as a visitor.

I do not support Scenario 1 simply because there is a small improvement, and there will probably be an equally small investment in the social issues of the area. I opt for Scenario 2 overall in a stage approach.



Scenario 2





Slow Traffic

- 1. Traffic calming (+ 30km/hr speed limit)
- 2. Narrower vehicle space (carriageway and trees)
- 3. Tighten intersection geometries
- 4. Bus stop in traffic lane

Increase Visitation

- 5. On street parking bays
- 6. Significantly improved cyclist access and parking
- 7. Flexible alfresco and public seating areas



Add Greenery and Amenity

- 8. Median tree and shrub planting
- 9. Verge tree and shrub planting
- 10. Parking nib tree and shrub planting



Prioritise Pedestrians and Cyclists

- 11. Zebra crossings at raised side streets
- 12. Raised pedestrian crossing
- 13. Cyclist priority on raised side streets14. Dedicated cycle lanes through roundabout
- 15. Overall footpath widening (& wall removal here)

Enhance Safety and Image

- 16. Replace all reversing parking with parallel bays
- 17. Enhanced people presence within the street
- 18. Enhanced streetscape look and feel
- 19. New Lighting throughout the street
- 20. Additional CCTV



Create a Point of Difference

21. Highly pedestrian and cycle friendly

Scenario Detailed Findings

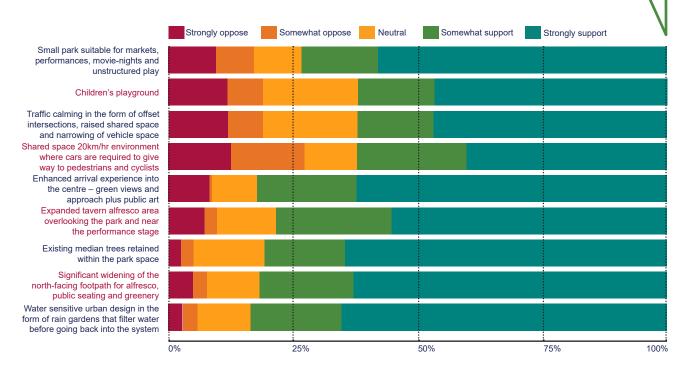
Scenario 3

Features that received support were:

- Water sensitive urban design in the form of rain gardens that filter water before going back into the system (83% strongly support/support)
- Enhanced arrival experience into the centre – green views and approach plus public art (82% strongly support/ support)
- Significant widening of the northfacing footpath between Gardiner and Leake Streets, for alfresco, public seating and greenery (82% strongly support/support)
- Existing median trees retained within the park space (81% strongly support/ support)
- Expanded tavern alfresco area overlooking the park and near the performance stage (79% strongly support/support)
- Small park suitable for markets, performances, movie-nights and unstructured play (74% strongly support/support)

 Traffic calming in the form of offset intersections, raised shared space and narrowing of vehicle space (70% strongly support/support) My concern is that scenario 3 (my choice) is providing a entertainment park. With this, I fear that this will be used for unintentional use during the day and after hours. My question is - how will this be controlled.

Definitely the scenario 3 is more attractive and would provide an identity to the Belvidere Street for the next 20-30 years. This will help to unlock all the potential and allow people like me to invest and create sustainable businesses in the area.



Scenario 3





Slow Traffic

- 1. Traffic calming (+20km/hr speed limit)
- 2. Offset intersection to force cars to slow down
- 3. Narrower vehicle space (carriageway and trees)
- 4. Bus stop in traffic lane



Prioritise Pedestrians and Cyclists

- 13. Accessible flush surface shared space treatment
- 14. Cars give way to crossing pedestrians
 15. Cyclists share space with cars in safe 20km/hr environment
- 16. Cyclist & pedestrian priority crossing at side streets



Increase Visitation

- 5. Flexible green space markets, movie nights, unstructured play and performances
- 6. Stage entertainment and flexible seating
- 7. Children's playground with nature play element
- 8. Flexible alfresco and public seating areas

Enhance Safety and Image

- 17. Replace all reversing parking with parallel bays
- 18. Significantly enhanced people presence within the street
- 19. Significantly enhanced streetscape look and feel

Add Greenery and Amenity

- 9. Small local park
- 10. Median tree and shrub planting
- 11. Verge tree and shrub planting
- 12. Parking nib tree and shrub planting

Create a Point of Difference

- 20. Community, entertainment, play and relaxation
- 21. Green and public art views on arrival
- 22. North facing tavern alfresco with direct frontage to park and performance space

Preferred Scenario

Overall Ranking

Survey respondents were ask to nominate their preferred scenario overall.

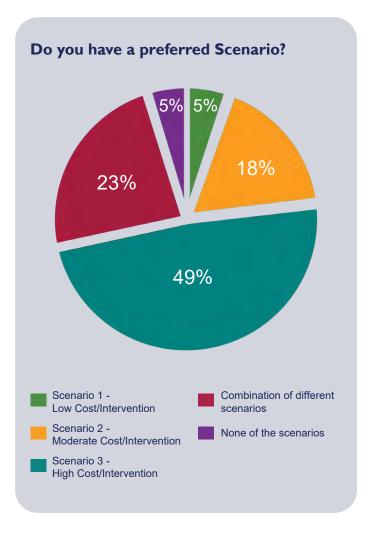
Scenario 3 "High Cost/Intervention" was ranked as the most popular scenario (82 votes), followed by the wish to combine elements of different scenarios (40 votes). Scenario 2 "Moderate Cost/Intervention" was preferred by 30 participants and Scenario 1 "Low Cost/Intervention" only had 9 supporters. 8 participants responded that they do not like any of the proposed scenarios.

Yes! Amazing! Let's get this precinct safer, more vibrant and get the community together to support locals!

The business owners' favourite

The three survey respondents that operate a business in the area indicate that their preferred option would be a combination of different scenarios with a tendency towards scenario 2. The business owners strongly support the undergrounding of the overhead powerlines and the creation of flexible spaces that can be used for alfresco and open space. Whilst they generally support the greening of the street and the enhancement of pedestrian paths and crossings, the business owners oppose the conversion and removal of too many parking spaces.

This is exactly what we need for this steet - lots of untapped potential



Popular elements

Scenario I	Scenario 2	Scenario 3
Comprehensive greening of the street	Comprehensive greening of the street	Existing median trees retained and integrated within designWater sensitive urban design
 Widening and improvement of footpaths Additional safe pedestrian crossings 	 Widening of all footpaths within the centre Additional safe pedestrian crossings Prioritisation of pedestrian and cycle movement 	 Significant widening of the north-facing footpath for alfresco, public seating and greenery Traffic calming and prioritisation of pedestrian and cycle movement
Transformation of some of the parking bays and traffic infrastructure in favour of wider footpaths and greenery	Flexible spaces that can be used for alfresco and publicly accessible open space	 Expanded tavern alfresco area Small park suitable for markets, performances, movie-nights and unstructured play
	 Greener and enhanced entry points to the area Undergrounding of overhead powerlines 	 Enhanced arrival experience into the centre Undergrounding of overhead powerlines

Scenario Detailed Findings

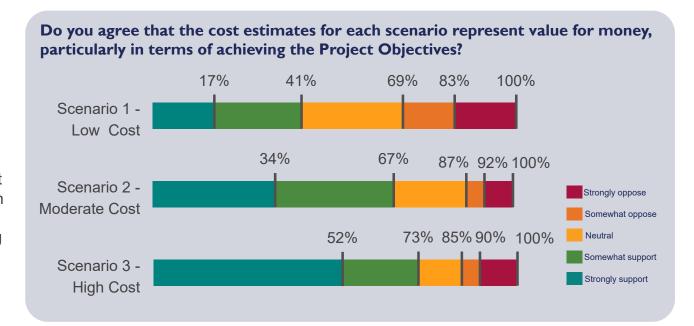
Value for Money

Scenario 3 was considered best value for money (73%), including 52% strong support.

The survey participants noted that there was a great difference in terms of costs between the three scenarios, especially scenario 1 in comparison in comparison to scenarios 2 and 3. Nevertheless, most participants agree that high investment in this project is needed in order to achieve real change and improvement in the long run.

Spend the money the area needs. Do all the major work in one hit. Advertise the work extensively and have a celebration launch on completion

I believe with ongoing investment and careful planning this area can be a successful and desirable area for residents and the public in general. We are in a great location.



Although scenario three is more expensive, I think in the long run it will give more bang for it's buck, so to speak, and will vastly improve the area, helping to foster a better community environment.

How can this sort of money be justified? How will it be budgeted for? Will rates have to go up to pay for it? If this is the case City of Belmont should be transparent and advise everyone of this.

Preliminary Cost Summary

	Scenario I	Scenario 2	Scenario 3
Demolition and New Works	\$650,000	\$2,863,000	\$3,724,000
Total Construction Costs	\$650,000	\$2,863,000	\$3,724,000
Design Contingency	\$65,000	\$287,000	\$373,000
Construction Contingencies	\$72,000	\$315,000	\$410,000
Professional Fees	\$119,000	\$416,000	\$541,000
Western Power Works P Sum	Excluded	\$1,843,000	\$1,843,000
Development Approval	\$12,000	\$12,000	\$13,000
Building Code of Australia Compliance	\$4,000	\$18,000	\$23,000
Public Artwork	Excluded	Excluded	\$46,000
Escalation (to Nov 2025)	\$135,000	\$841,000	\$1,019,000
Estimated Total Commitment (Excl. GST)	\$1,057,000	\$6,595,000	\$7,992,000

Belvidere Street Revitalisation Plan

Common Themes

General Comments

The data collated included qualitative feedback in the form of general comments and ideas submitted by the survey participants.

The following is a summary of the key take outs of the general comments received through the survey. Those key requirements and comments were structured in different key themes:

- Social Matters and Safety
- Process
- Placemaking and Streetscape Upgrade
- Traffic and Parking
- Business and Amenities

Social Matters and Safety

- Efficient and sustainable measures against anti-social behaviour such as CCTV, police presence and improved street lighting
- An active Community Engagement Strategy that includes consultation with residents and shop owners
- Inclusive design (disability access and inclusion of vulnerable user groups)
- Measures needed against negative side effects of gentrification process

Currently Belvidere street can be quite scary and intimidating to a single woman walking alone, it would be nice to have a welcoming and safe space for all to enjoy. The area needs to be people friendly for the locals as well as enticing visitors to the area. They should offer a safe environment for everyone.

The property owners and tenants need to be consulted with this process. There are many factors that need to be considered

Process

- Immediate/fast implementation of revitalisation process
- Powerlines to be put underground as an essential measure in the process
- Identification of the area's importance
- High investment needed to achieve real change and improvement by "Doing it very well"
- Transparent cost management within revitalisation process

This project is long overdue. We moved here years ago with promises of redevelopment, but nothing has happened. This is important! I honestly think this is the most pressing area for improvement for City of Belmont.

I 100% have seen over the years how absolutely necessary "doing it very well" has reaped the rewards for the community and the overall general positive feel and change in ideology it has brought to the area.

Streetscape Upgrade

- More integrated greenery in addition to the existing trees
- Additional open spaces and safe places for the community to gather
- Clean and well-maintained streetscape
- Appealing facades and welcoming shop fronts
- Street art and public art work
- Foster the local Sense of Place and make it a destination to be proud of

Traffic and Parking

- Retain popular parking lots and implement an efficient and accessible car parking strategy (focus on inclusion of vulnerable user groups/functionality)
- Improved cycling and pedestrian paths
- Reduced speed and creation of safer crossing points for pedestrians
- Promote usage and facilities for Electric Vehicles (EV)
- Avoid car congestion of surrounding streets through revitalisation process

Business and Amenities

- Support for existing shops which are highly frequented and appreciated
- Upgrade of shop fronts, especially in terms of the roller doors (safety issue)
- Increased visibility of shops through signage and designing an arrival point
- Additional and high quality alfresco options where it is logical
- Better zoning to avoid storage along Belvidere Street and to allow for larger businesses/developments

I love the idea of local art being displayed over the very off putting roller shutters.

Love the grassed area/alfresco idea. Also like the idea of powerlines underground but also know this will be significant cost. Not sure it will be worth it? Maybe with time

Everyone I know in the area is desperate for Belvidere Street to live up to its potential. I walk there from my home several times a week and have small children and would love to be able to stay a while and meet friends and turn it into a safe neighbourhood inviting and clean.

Less space for cars to drive through and parking kept behind the shopfronts, and more greenery/ cycling paths are ideal!

> Love for more shade and shared space with cyclists, to encourage safety and stop hoon drivers coming through.

Parking convenience is a priority for us.

PLEASE fix up our Belvidere street. We need a SAFE area for the residents to support local business. Let's get people driving to Belmont for the coffee shops, restaurants and green spaces. Just get it done. Don't waste time on it, the area is a haven for derelict behaviour, which is such a shame for the shop owners, because they ARE good shops...

A place to encourage communal interaction as well offering choice of independent shops, restaurants, cafes etc.

Project Delivery

Staging Preferences

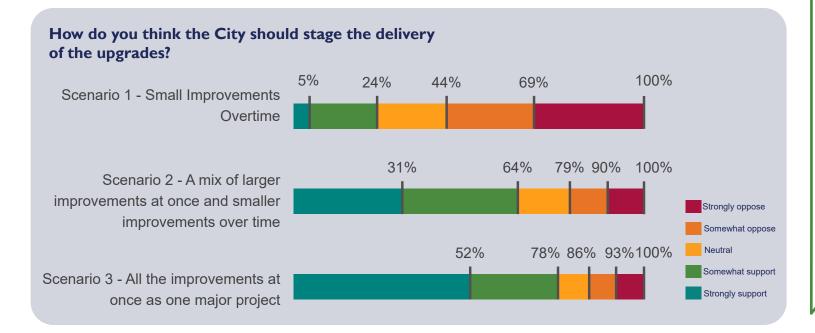
In selecting a preferred staging scenario, the majority of respondents preferred all the improvements occurring at once as one major project (78%), including 52% registering strong support. However, there were a large number of comments in favour of a staged approach.

A more staggered approach would give the opportunity to test and learn, while it is important to implement prioritised features, such as underground power lines, landscaping and safety measures, right from the beginning.

Therefore, a mix of smaller and larger improvements at once and over time would help to avoid negative outcomes such as an increase of anti-social behaviour and at the same time, they would have an almost instant positive impact.

Slow upgrade will add to asthetics and can monitor if this remains a positive scenario to continue for attendees to this location.

Demonstrates no large cost outlay for deminishing returns over time due to any damage of bigger upfront outlays by council.



The antisocial behaviour is the critical issue that will affect the successful outcome of any of the scenarios. The staged development, in my opinion, will provide all of us with an indication of whether we can get on top of the antisocial behaviour before there is a major financial commitment to the redevelopment. If the behaviour continues to be off-putting, then the development will be a waste of energy and resources.

Technical Considerations

There is a strong preference for existing powerlines on Belvidere Street to be put underground. This requires careful consideration in terms of managing costs as well as staging generally. Both Scenarios 2 and 3 require power to be under-grounded for the section of Belvidere Street between Keymer and Gardiner Streets, due to conflicts that would otherwise arise between new cycle paths or re-aligned road carriageways. However, for both of these scenarios, under-grounding of power is not required between Gardiner and Leake Street. This is not to say that it may not be preferred or that trenching should be established ready for future under-grounding.

Ultimately, for scenarios 2 and 3 a stage 1 section between Gardiner and Leake Streets could be delivered without relying on the under-grounding of powerlines. In any case, this location represents a logical stage 1 given the recent confirmation of the IGA's s intentions within the next 2 or 3 years to redevelop and relocate to the overflow car park on Belvidere Street between Keymer and Somers Streets. This way

a more integrated approach can be taken to the design of the built form, land use and public realm. An immediate positive impact would be seen if stage 1 upgrades were to occur between Gardiner and Leake Streets, with existing food and beverage businesses benefiting from additional alfresco space, which can help activate the street from day 1.

Main Roads WA (MRWA) were consulted on the three scenarios and their preference was for Scenario 3. They especially liked the shared space approach. For scenario 2, they raised concerns with the roundabout zebra crossings and on side streets would prefer to see zebra crossings for both priority cycle lanes and pedestrian crossings.

PTA will need to be consulted in relation to Scenario 3 and the proposed offset intersections. The recent Hay Street shared street improvements serve as a relevant local precedent, with offset intersections introduced to slow traffic on an existing bus route.





