#### 6.1 CLOSURE OF BIRRELL STREET

### Attachments:

- 1. MRWA Permanent Closure of Birrell St for SBR, Green St Roundabout
- 2. Local Government Act 1995 Section 3.50
- 3. MRWA Scarborough Intersection Upgrade
- 4. Community Consultation Outcomes SBR, Green St and Brady St
- 5. City of Stirling Agenda Item 26 March 2024
- 6. Road Closure Birrell Street Public Notice Feedback Confidential

### **RECOMMENDATION:**

### **That Council:**

- 1. APPROVES the request from Main Roads WA (see Attachment 1) for the permanent closure of Birrell Street, converting it to a cul-de-sac at the intersection of Scarborough Beach Road, in accordance with section 3.50 of the *Local Government Act 1995*; and
- 2. REQUESTS Administration to explore options with the Main Roads WA project team, to turn the cul-de-sac into a space that supports sustainable modes of transport including walking and cycling.

### PURPOSE OF REPORT:

To consider a request by Main Roads WA (MRWA) for the permanent closure of Birrell Street, at the intersection of Scarborough Beach Road and Green Street, in accordance with section 3.50 of the Local Government Act.

#### **DELEGATION:**

Permanent closure of thoroughfares to vehicles under Section 3.50 of the *Local Government Act 1995* requires determination by Council in accordance with Council's adopted register of delegations, authorisations, and appointments section 2.2.8 Closing thoroughfares to vehicles.

### **BACKGROUND:**

The configuration of the Scarborough Beach Road, Green Street and Brady Street intersections has been a long-standing road safety concern and is a *Blackspot* area. MRWA has taken the lead on this road safety project with input from both the City of Vincent and City of Stirling, the local governments impacted by the project. In May 2020 MRWA prepared a concept design which was presented to the community, feedback from this consultation was provided to Main Roads WA.

MRWA provided further design drawings for both the City of Vincent and the City of Stirling to comment on in mid to late 2022. Feedback was provided and meetings were held with the parties into 2023.

Both affected local governments identified technical issues regarding traffic and transport related matters and while MRWA addressed these during this period, some issues remain unresolved. In September 2023, MRWA formally wrote to the City of Vincent requesting consent to commence proceeding the closure of Birrell St in accordance with section 3.50 of the *Local Government Act 1995*.

In November 2023 MRWA presented a project update to Council which focused on the closure of Birrell Street and outlined the road safety project timeline towards completing the design and commencing construction in 2024.

Following this, MRWA and the City Administration discussed the process to seek Council's consent for the closure of Birrell St in accordance with section 3.50 of the Local Government Act 1995.

The City Administration sought that any remaining technical issues/concerns be addressed prior to a request being presented to Council, however given the committed timeline for delivery, MRWA proposed that these be dealt with into the 100% design phase and post-construction of the project.

As a consequence, Council approval is being sought for the permanent closure of Birrell Street, which currently allows Local Traffic to turn into Birrell Street from Scarborough Beach Road.

### **DETAILS:**

Birrell Street is a one-way access from Scarborough Beach Road as detailed in the below aerial image.



Aerial Imagery - Birrell Street / SBR intersection

Birrell Street is classified as a Local Access Road in the Metropolitan Road Hierarchy adopted by MRWA. The maximum desirable traffic volume on a Local Access Road is up to 3,000 vehicles per day (vpd). The legal speed limit is 40km/h.

Detailed following is traffic data collected from 10 March 2021 to 17 March 2021:

### Traffic volume:

Average 5 days = 263 vpd (vehicle per day)

### Speed:

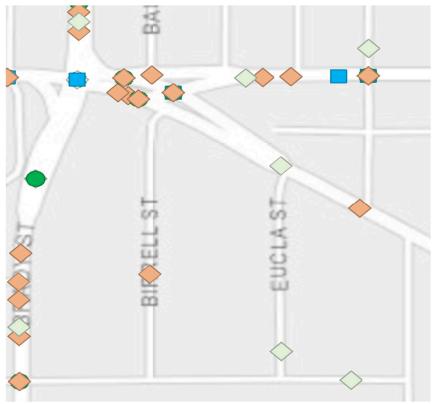
85% = 45.5km/h (The 85<sup>th</sup> percentile speed is the speed that 85% of vehicles are travelling at, or slower, under free-flowing conditions)

Average speed = 35.1km/h

### Class:

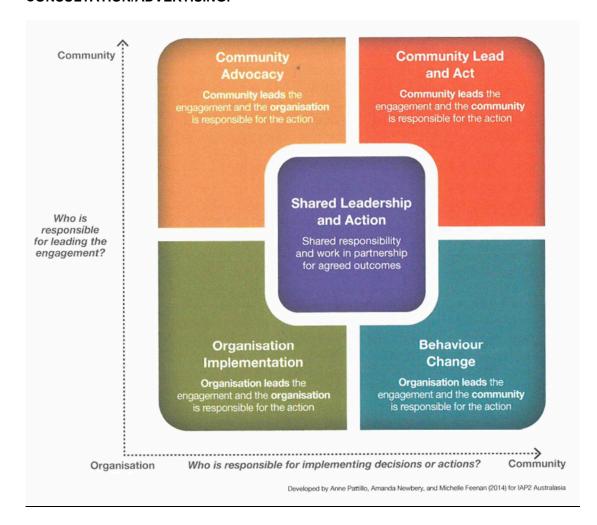
Heavy vehicles = 5.8%

Crash data over the last 5 years shows one minor property damage crash on Birrell Street. No crashes are recorded at the intersection of Birrell Street and Scarborough Beach Road however the street is 80m away from the intersection of Scarborough Beach Road, Brady Street and Green Street that has a high number of crashes as stated within the image below.



Recording of vehicle crashes - SBR, Green and Brady

### **CONSULTATION/ADVERTISING:**



### Organisation Implementation

Engagement is used to both inform the community about the proposed policy, project or propositions, and to provide some input to the shape or execution of the policy, project or proposition.

**Tension:** People feel forced leading to an unresponsive process.

Mitigation: Increasing the level of influence, and implementing a transparent, robust process.

Required under regulations/legislation

## Communicate how community and stakeholder input has influenced the decision-making or implementation

**HOW DO WE MEASURE SUCCESS?** 

Community consultation for the City of Vincent residents (see Attachment 4) opened on 1 May 2020 and closed 15 May 2020 see link for details Scarborough/Green Intersection Upgrade | The City of Vincent

City of Stirling community consultation can be viewed within its Council agenda item (see Attachment 5) for 26 March 2024, see link <u>Agenda of Ordinary Meeting of Council - Tuesday, 26 March 2024</u> (stirling.wa.gov.au)

MRWA was provided with these results for their review and interpretation. Due to majority of respondents within the City of Stirling and the City of Vincent strongly supporting and somewhat supporting, MRWA progressed with the project and design.

In accordance with delegation 2.2.8 (Function 2) public notice was given on 15 April 2024 for a reasonable period of 21 days, providing details of the proposal, including the location of the thoroughfare and where, when, and why it would be closed, inviting submissions from any person who wished to make a submission.

Five (5) Submissions were received as follows and detailed in confidential Attachment 6:

- Three (3) out of the five (5) submissions were made by property owners on Birrell Street, all supporting the cul-de-sac option with two (2) suggesting the location of the cul-de-sac could be moved to allow for heavy vehicles to service businesses at the corner of Brady Street and Scarborough Beach Road.
- One (1) submission received was from a property owner on Tasmin Street in support of the road closure.
- One (1) submission from a property owner on Eucla Street did not speak on the proposed closure however raised concerns relating to the MRWA roundabout project potentially causing rat running down Eucla, Egina, Federation and Merredin Streets.

There were no submissions received objecting to Birrell Street being permanently closed and becoming a cul-de-sac at the Scarborough Beach Road end.

### LEGAL/POLICY:

Road Traffic Act 1974 Local Government Act, Section 3.50

### **RISK MANAGEMENT IMPLICATIONS**

Low: It is low risk for Council to approve the closure of Birrell Street, converting it to a cul-de-sac, where it intersects with Scarborough Beach Road.

### STRATEGIC IMPLICATIONS:

This is in keeping with the City's Strategic Community Plan 2022-2032:

### Accessible City

We have better integrated all modes of transport and increased services through the City.

### Innovative and Accountable

Our decision-making process is consistent and transparent, and decisions are aligned to our strategic direction.

#### SUSTAINABILITY IMPLICATIONS:

This does not contribute to any environmental sustainability outcomes. This action/activity is environmentally neutral. This is a MRWA road safety project which focuses on elimination and mitigation of crashes.

### **PUBLIC HEALTH IMPLICATIONS:**

This is in keeping with the following priority health outcomes of the City's Public Health Plan 2020-2025:

Reduced injuries and a safer community

### FINANCIAL/BUDGET IMPLICATIONS:

There is no financial cost to the City of Vincent beyond the cost of advertising and in-house administration.

#### **COMMENTS:**

Administration has no concerns following the review of traffic data relating to the impact of closing access onto Birrell Street from Scarborough Beach Road. Community feedback received will be provided to MRWA regarding the proposed closure of Birrell Street, creating a cul-de-sac at the Scarborough Beach Road end.

It should be noted that the City Administration hold similar technical concerns as the City of Stirling regarding the high risk of negative impacts on surrounding local roads resulting post construction of the Scarborough Beach Road, Main Street and Green Street intersection roundabout. The City of Vincent and the City of Stirling will continue to work through these technical issues with MRWA which has committed to complete further traffic analysis and assist in solving any residual issues post construction.



Enquiries: Jemma Van Der Loo on 9323 6327

Our Ref: D23#852023, 20/3265

Your Ref: N/A

6 September 2023

Chief Executive Officer City of Vincent 244 Vincent Street Leederville WA 6007

Dear Sir

# PERMANENT CLOSURE OF BIRRELL STREET FOR SCARBOROUGH BEACH ROAD, GREEN ST ROUNDABOUT PROJECT

The State Government has committed funding to upgrade the intersection of Scarborough Beach Road and Green Street to address safety and traffic concerns.

It is anticipated that the construction of this project will commence Spring 2024 and is expected to be completed in Autumn 2025.

In order to accommodate the new roundabout, it is necessary to permanently close Birrell Street, converting it to a cul-de-sac, where it intersects with Scarborough Beach Rd.

Given that the intersection of Scarborough Beach Rd and Birrell St comes under the jurisdiction of the City of Vincent, Main Roads Western Australia hereby requests your consent to commence the proceeding for the closure of Birrell St in accordance with the section 3.50 of the Local Government Act 1995.

If you would like to discuss this matter please do not hesitate to contact Project Manager, Jemma Van Der Loo on (08) 9323 6327.

Yours sincerely

P. Jacobs

Peter Jacobs

PROJECT DIRECTOR

action in a court of competent jurisdiction, recover from the alleged offender —

- if the goods are not sold under section 3.47, the expenses incurred by the local government in removing and impounding them and in disposing of them if they are disposed of under section 3.47; and
- if the goods are confiscated and sold under section 3.47, (b) the amount, if any, by which the money received from the sale and credited to the municipal fund under section 3.47(6) is insufficient to meet expenses incurred by the local government in removing, impounding, and selling them; and
- (c) if the goods are not confiscated but are sold under section 3.47, the amount, if any, by which the money received from the sale is insufficient to meet the costs and expenses referred to in section 3.47(4) or (5), as the case requires.

[Section 3.48 amended: No. 64 of 1998 s. 13.]

### **Subdivision 5** — Certain provisions about thoroughfares

*[3.49.*] Deleted: No. 64 of 1998 s. 14(1).]

#### 3.50. Closing certain thoroughfares to vehicles

- A local government may close any thoroughfare that it manages (1) to the passage of vehicles, wholly or partially, for a period not exceeding 4 weeks.
- (1a) A local government may, by local public notice, order that a thoroughfare that it manages is wholly or partially closed to the passage of vehicles for a period exceeding 4 weeks.
- The order may limit the closure to vehicles of any class, to (2) particular times, or to such other case or class of case as may be specified in the order and may contain exceptions.
- I(3)deleted]

Part 3 Functions of local governments

**Division 3** Executive functions of local governments

s. 3.50

- (4) Before it makes an order wholly or partially closing a thoroughfare to the passage of vehicles for a period exceeding 4 weeks or continuing the closure of a thoroughfare, the local government is to
  - (a) give local public notice of the proposed order giving details of the proposal, including the location of the thoroughfare and where, when, and why it would be closed, and inviting submissions from any person who wishes to make a submission; and
  - (b) give written notice to each person who
    - (i) is prescribed for the purposes of this section; or
    - (ii) owns land that is prescribed for the purposes of this section;

and

- (c) allow a reasonable time for submissions to be made and consider any submissions made.
- (5) The local government is to send to the Commissioner of Main Roads appointed under the *Main Roads Act 1930* a copy of the contents of the notice required by subsection (4)(a).
- (6) An order under this section has effect according to its terms, but may be revoked by the local government, or by the Minister, by order of which local public notice is given.
- [(7) deleted]
- (8) If, under subsection (1), a thoroughfare is closed without giving local public notice, the local government is to give local public notice of the closure as soon as practicable after the thoroughfare is closed.
- (9) The requirement in subsection (8) ceases to apply if the thoroughfare is reopened.

[Section 3.50 amended: No. 1 of 1998 s. 11; No. 64 of 1998 s. 15; No. 49 of 2004 s. 26.]

### 3.50A. Partial closure of thoroughfare for repairs or maintenance

Despite section 3.50, a local government may partially and temporarily close a thoroughfare, without giving local public notice, if the closure —

- is for the purpose of carrying out repairs or maintenance;
- (b) is unlikely to have a significant adverse effect on users of the thoroughfare.

[Section 3.50A inserted: No. 64 of 1998 s. 16.]

#### 3.51. Affected owners to be notified of certain proposals

(1) In this section —

> person having an interest, in relation to doing anything, means a person who —

- is the owner of the land in respect of which that thing is done, or any land that is likely to be adversely affected by doing that thing; or
- (b) is shown on the title to any of the land mentioned in paragraph (a) as holding an interest in any of that land;
- is prescribed for the purposes of this section. (c)
- (2) This section applies to
  - fixing or altering the level of, or the alignment of, a (a) public thoroughfare; or
  - (b) draining water from a public thoroughfare or other public place onto adjoining land.
- Before doing anything to which this section applies, a local (3) government is to —
  - (a) give notice of what is proposed to be done giving details of the proposal and inviting submissions from any person who wishes to make a submission; and

## **Scarborough Intersection Upgrade**

## Scarborough Beach Road, Main Street, Brady Street and Green Street

Main Roads is providing technical input and project management support to City of Vincent and City of Stirling on the development and design of an appropriate treatment for the project location at the intersection of Scarborough Beach Road with Green Street, and minor modifications at the intersection of Main Street and Brady Street. City Of Vincent and City of Stirling will be leading all stakeholder engagement and deliver the agreed scheme.

### **Key Design Features**

### Proposed roundabout at Scarborough Beach Road / Green Street intersection

- Based on extensive community feedback, the proposed **full movement roundabout** will greatly improve safety and efficiency for all road users at this location by:
  - Providing a safe right-turn from westbound Scarborough Beach Road onto Green Street. This would eliminate rat-running through Merredin Street, which adversely impacts the local residents and causes road safety issues; and
  - o Eliminating the existing two-stage road crossing from westbound Green Street onto Scarborough Beach Road. This would allow the intersection to be more 'free-flowing', thus enhancing traffic flow and improving safety for all users.

### Pedestrian/Cycling facilities and connectivity

- Shared Path south of Scarborough Beach Road between Main Street / Brady
   Street intersection and the new proposed Green Street roundabout;
- Extension of the on-road cycle lanes along Scarborough Beach Road, eastbound and westbound, and connecting to the proposed shared path; and
- A raised pedestrian crossing on Scarborough Beach Road and a cut-through facility on Green Street, providing pedestrian safety and improved connectivity.

### Access:

- Existing accesses remain unchanged on Bauxite Lane, Waterloo Street, Eanun Lane and Eucla Street;
- Allowing right-turn movement from eastbound Scarborough Beach Road to Brady Street reduces rat-running through Eucla Street, which adversely impacts the local residents.
- The current one-way access into the Birrell Street will be closed off to accommodate the proposed roundabout whilst also improving safety for pedestrians and bike riders on the new Shared Path on the south side of Scarborough Beach Road. Birrell Street will turn into a cul-de-sac, with local access for residents maintained through Milton Street and the local street network.

- **Landscaping treatments** are proposed to create attractive public spaces for people through amenities and features such as:
  - Planting with rest stops for pedestrians and cyclists south of Scarborough Beach
     Road along the new proposed Shared Path; and
  - Planting and parklet opportunities on the eastern corner of the proposed
     Scarborough Beach Road / Green Street roundabout.

# Modifications at the Signalised Intersection of Scarborough Beach Road / Main Street / Brady Street

- **Minor modifications** at the existing signalised intersection will improve safety and enhance traffic flow. These include:
  - Allowing the right-turn movement and installing a turn pocket on Scarborough Beach Road eastbound to Brady Street. This will reduce rat-running through Eucla and Milton Streets, which adversely impacts the local residents; and
  - Realigning the left turn pocket on Brady Street northbound to improve sight distances and swept paths; making this movement safer and reducing delays by changing traffic control to Give Way.

### Pedestrian/Cycling facilities and connectivity

- Upgrading signalised pedestrian crossing facilities at the intersection of Scarborough Beach Road / Main Street / Brady Street to include walk / don't walk signals on all legs; and
- Installing zebra crossings on the left turn pockets of Brady Street and Main Street, to improve pedestrian movements.

### Landscaping treatment

- Additional planting and landscaping around Gibney Avenue cul-de-sac to improve the public area;
- o Shrubs in front of currently vacant car dealership on the north-west corner; and
- Together with the parklet on the north-east corner of the intersection, and the enhancements at the Green Street roundabout, the project area will be transformed into an attractive, pedestrian friendly space.

### **Interim Treatment**

In parallel to the above proposals, Main Roads, the City of Vincent and the City of Stirling have collaborated on interim traffic management to enhance the road alignment and safety by installing new pavement markings and signage, which have already been completed.

This interim traffic management provides a single lane entry into Scarborough Beach Road eastbound, and improves delineation from Green Street to Scarborough Beach Road westbound.

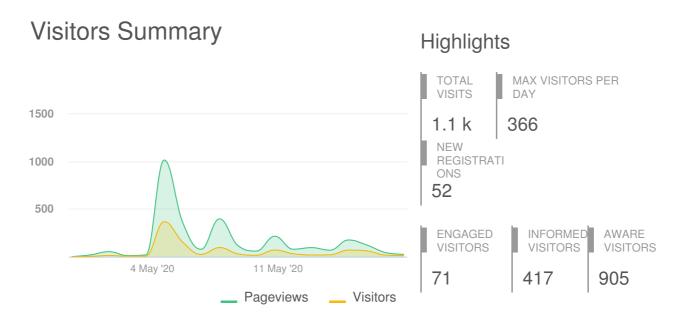
# **Project Report**

24 May 2017 - 17 May 2020

# The City of Vincent

# Scarborough/Green Intersection Upgrade





Aware Participants	905	Engaged Participants	71		
Aware Actions Performed	Participants	Engaged Actions Performed	Registered	Unverified	Anonymous
Visited a Project or Tool Page	905		. rogiotoroa	0000	7
Informed Participants	417	Contributed on Forums	0	0	0
Informed Actions Performed	Participants	Participated in Surveys	69	0	2
Viewed a video	0	Contributed to Newsfeeds	0	0	0
Viewed a photo	270	Participated in Quick Polls	0	0	0
Downloaded a document	113	Posted on Guestbooks	0	0	0
Visited the Key Dates page	0	Contributed to Stories	0	0	0
Visited an FAQ list Page	0	Asked Questions	0	0	0
Visited Instagram Page	0	Placed Pins on Places	0	0	0
Visited Multiple Project Pages	341	Contributed to Ideas	0	0	0
Contributed to a tool (engaged)	71				

## **ENGAGEMENT TOOLS SUMMARY**



Tool Type	Engagement Tool Name	Tool Status Visito	Visitors	Contributors		
			Viole	Registered Unverified		Anonymous
Survey Tool	Scarborough Intersection Upgrade	Published	177	69	0	2

## **INFORMATION WIDGET SUMMARY**



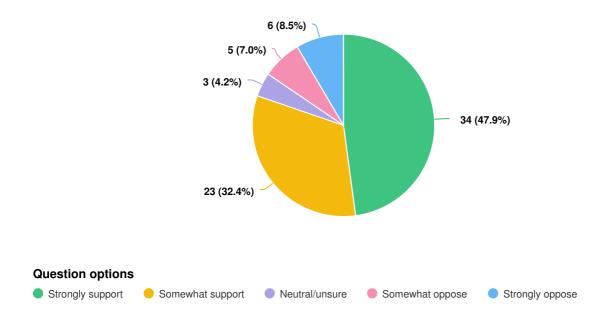
Widget Type	Engagement Tool Name	Visitors	Views/Downloads
Photo	Draft concept design_1	250	265
Photo	Draft concept design_2	136	143
Photo	Draft concept design_3	115	121
Document	Scarborough Intersection Upgrade - Key Features	113	121

### **ENGAGEMENT TOOL: SURVEY TOOL**

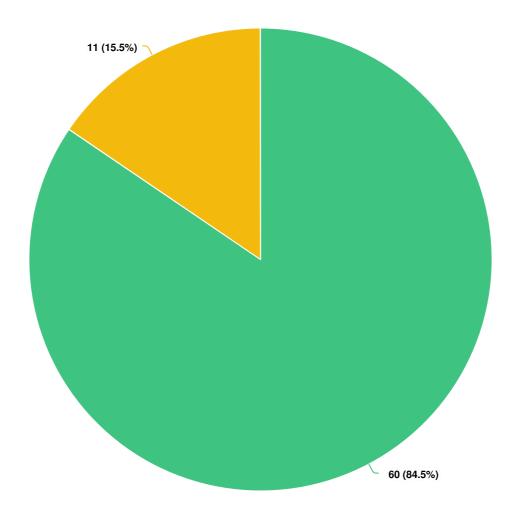
## Scarborough Intersection Upgrade



Do you support the design proposed by Main Roads for upgrades to the Scarborough Beach Road/Green Street/Main Street inters...

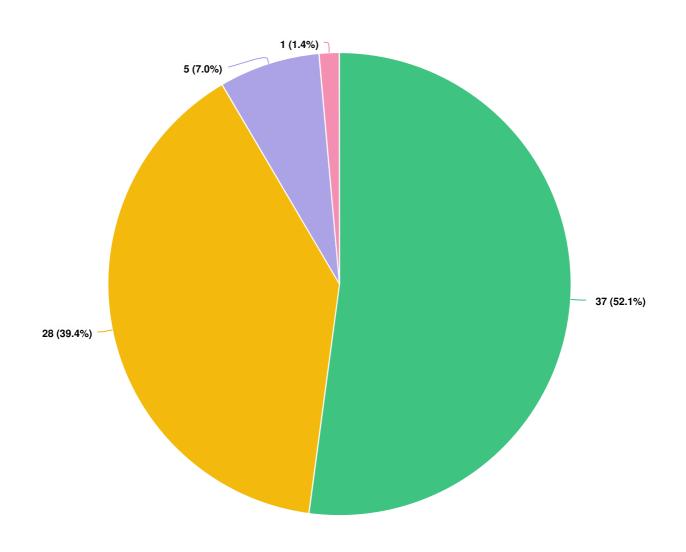


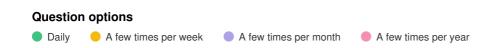
# Do you live near the Scarborough Beach Road/Green Street intersection (within approximately 2 kms)?



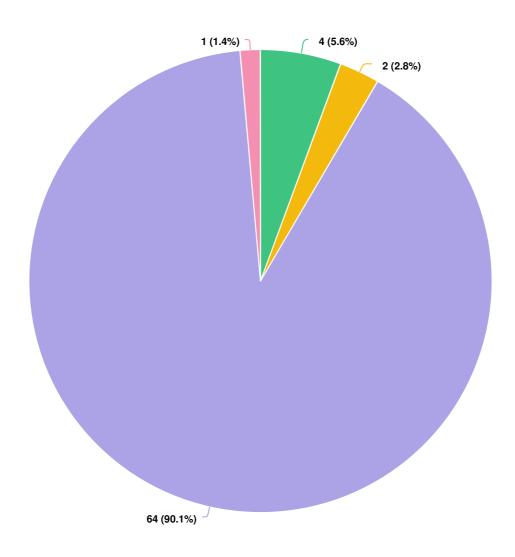


### Approximately how often do you use the intersection?



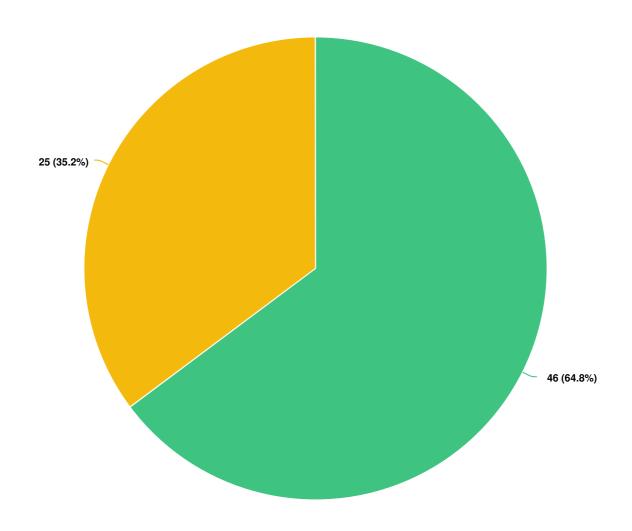


By what mode of transport do you most frequently use the intersection?



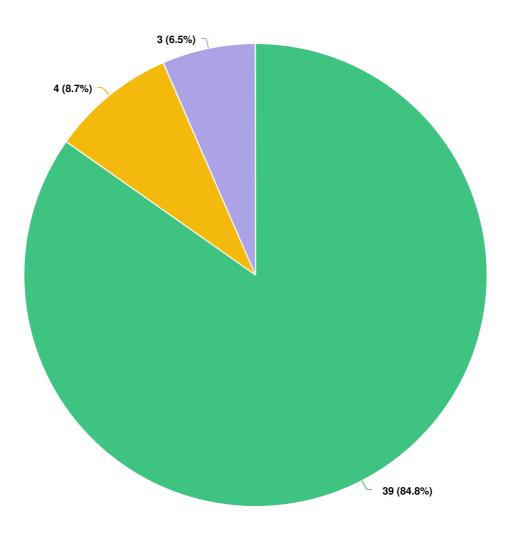


# Is the Scarborough Beach Road/Green Street intersection part of your regular commute?





### How do you normally commute?







### 13.1 PROPOSED ROUNDABOUT - SCARBOROUGH BEACH ROAD AND GREEN STREET, JOONDANNA

Business Unit:	Engineering Services	Service: Transport Services
Ward:	Osborne	Location: Intersection of Scarborough Beach Road and Green Street
Applicant:	Not Applicable	

### Role

Executive - Governing the City and the community through executive powers.

### Recommendation

That Council ADVISES Main Roads WA that it supports the Scarborough Beach Road / Green Street 100% detailed design, SUBJECT to further microsimulation traffic modelling by Main Roads WA which demonstrates an adequate level of service along the adjoining roads of Scarborough Beach Road, Main Street, Brady Street and Green Street, Joondanna.

### **Purpose**

To provide a comprehensive overview of the 100% design for the proposed roundabout at the intersection of Scarborough Beach Road and Green Street in Joondanna.

### **Details**

### **Background**

The Member for Balcatta, Mr David Michael MLA, and the Member for Perth, Mr John Carey MLA, have been advocating for major upgrades to the intersection since the 2017 State Election. The proposed upgrade at the intersection is funded entirely by the State Government as an election commitment.

The project was initially tasked to the City of Stirling and the City of Vincent to manage. However, the Minister for Transport, The Hon Rita Saffioti MLA, requested in late 2019 for the project to be transferred to Main Roads WA (MRWA), which was accepted by both Cities. MRWA accepted responsibility for construction of the project in 2021/2022 and have indicated that preliminary works (service relocations) at this intersection are imminent.



Scarborough Beach Road, Main Street and Green Street are all classified as District Distributor (A) roads. Main Street, Green Street and Scarborough Beach Road west have a posted speed limit of 60 km/h, and Scarborough Beach Road east has a 50km/h speed limit.

Under the existing intersection configuration, vehicles heading westbound on Green Street need to cross Scarborough Beach Road eastbound into a small median refuge, then onto the westbound lanes of Scarborough Beach Road. This causes delays to motorists and a potential safety issue due to the low approach angle, resulting in motorists obstructing the access holding point area. The small median refuge area has also resulted in bus routes being diverted (by the Public Transport Authority) to avoid this manoeuvre.

The project aims to improve safety for all road users, with the design based on traffic data, accident and congestion statistics, engineering design standards and community consultation.

### Concept Design

A concept design was prepared by MRWA which included a roundabout at the intersection of Scarborough Beach Road and Green Street as well as traffic signal modifications at the intersection of Scarborough Beach Road / Main Street / Brady Street, as shown on the schematic plan in Figure 1.

This plan was the subject of extensive resident consultation by both the City of Stirling and the City of Vincent. The details of the City's consultation are described further in the Stakeholder Engagement section of this report. There was significant majority support from the community for the concept design as a means of improving safety for motorists and pedestrians.





Figure 1 - Concept Design Plan of Proposed Intersection Modifications



### **Detailed Design**

There were several significant changes implemented by MRWA between the concept design and the detailed design, which included:

- The vertical alignment of the roundabout was amended to apply fill only to minimise impacts to services and improve constructability and construction staging.
- The wombat crossing on Scarborough Beach Road east was relocated further east so that the existing driveways could be maintained on Scarborough Beach Road and to accommodate bus stop re-locations.
- The footpath was amended to avoid existing trees.
- Rationalisation of driveways and the cul-de-sac closure of Birrell Street (in the City of Vincent).
- The turning pocket at the Main Street intersection was lengthened to provide additional storage.
- Approaches to the roundabout were modified to provide more deflection, aligning more closely with Austroads Guidelines, and reducing the risk of vehicles entering the roundabout at high speeds and cutting lanes.
- The drainage design removed the pipe crossing of Main Street and connected to the existing drainage network east of the intersection to avoid issues with construction through a busy intersection.
- The drainage design was altered following receipt of service relocation requirements, additional potholing and to take account of recent drainage survey works undertaken by the City of Vincent. This included routing portions of the drainage network through the same drainage trenches as the existing network (which will be replaced) and replacing some pipes which were shown to have significant faults from recent CCTV investigations undertaken by the City of Vincent.
- Addition of loops on the western leg approach to the roundabout for monitoring of traffic queue lengths towards the Main Street intersection.

Following completion of a detailed design by MRWA, the cost estimate for the project had far exceeded the funding commitment provided by the two local Members of Parliament. The project was subsequently reduced in scope by MRWA to works limited to the roundabout with an emphasis on reducing service impacts and improving the constructability. MRWA have now prepared a detailed design for a roundabout at the intersection of Scarborough Beach Road and Green Street, as shown in Figure 2.





Figure 2 - Detailed Design Plan of Proposed Intersection Modifications



### City Comments on Detailed Design

The City has been requested by MRWA to provide final comments regarding the 100% design shown in Figure 2. The City has maintained its concerns for some time regarding the extent of modelling undertaken by MRWA, and the uncertainty about the potential impacts within the surrounding local road network.

The City considers that microsimulation traffic modelling should be undertaken, as it would play an important role in assessing the traffic impacts of a new roundabout and could give some guidance as to how the network would operate. The traffic effects could extend up to 500-plus metres along each of the legs along Main Street, Scarborough Beach Road and Brady Street. Microsimulation modelling would need to include the following key considerations:

- Detailed Assessment: Microsimulation provides a granular view of traffic behaviour by simulating individual vehicles, pedestrians, and cyclists. It would allow a better understanding of how they interact within the vicinity of the roundabout.
- Predicting Traffic Flow: Traffic flows around the roundabout can be predicted, including entry, exit, and circulating movements. It helps
  identify potential congestion points and bottlenecks. (What would happen in the scenario where a substantial number of vehicles
  travelling eastbound along Scarborough Beach Road wished to use the roundabout to travel south down along Brady Street south
  bound). It is recommended that MRWA do some sensitivity testing on extra right turn movements along Scarborough Beach Road at the
  roundabout westbound and eastbound.
- Safety Evaluation: Microsimulation helps assess safety aspects. It predicts conflict points like in the point above, such as potential
  collisions or near-misses, allowing the roundabout design to be optimised for safety.
- Queue Lengths and Delays: The model estimates queue lengths at entry points and calculates delay times for vehicles waiting to enter the roundabout. This information aids in optimising signal timings and lane configurations. The queuing lengths for the roundabout appear highly unlikely as it shows in Appendix of the design report.
- Pedestrian and Cyclist Behaviour: Microsimulation considers pedestrian crossings and cyclist interactions. It evaluates waiting times, crossing distances, and potential conflicts with vehicles.
- Scenario Testing: Modelling can simulate various scenarios, such as adjusting lane widths, changing signal phasing, or modifying entry/exit geometries. This helps optimize the roundabout design to minimize traffic impacts.
- Environmental Impact: Microsimulation assesses fuel consumption and emissions based on vehicle behaviour. It aids in understanding the environmental impact of the roundabout.
- Validation and Calibration: Modellers would need to validate the model using real-world data (e.g., traffic counts, travel times). Calibration ensures that the simulated results align with observed behaviour.



In summary, the City considers that microsimulation modelling should be scoped into the design checks, as it would provide a detailed and dynamic understanding of traffic behaviour, enabling informed decisions during the planning and design of the new roundabout. In turn this information may assist the City of Stirling and the City of Vincent with future project submissions while allaying major traffic queuing concerns from residents.

At this stage there is no further State Government funding commitment in addressing the traffic signals at Main Street / Scarborough Beach Road / Brady Street, and it would be proactive to plan with the State Government in delivering the next stage of works. Black Spot funding normally requires a treatment to be reassessed on its impact after five years of operational use.

If microsimulation modelling is not carried out prior to these works being undertaken and problems such as congestion / queuing are not resolved or become worse due to the proposed design, the Cities will be expected to consider further works as these are local roads and not under the control of MRWA.

### **Financial Assessment and Implications**

The State Government initially committed \$3 million in funding for the project, which resulted from a State Government election commitment made by David Michael MLA and John Carey MLA. There were significant cost escalations during the detailed design stage, primarily due to service relocations costs, and additional funding was made available by the State Government. The City understands the costs have continued to escalate during the design stage. MRWA has advised that based on the confirmed service relocation costs and 100% design, the project cost for the roundabout is now in the order of \$21 million. If the project was to proceed, it would be based on being 100% funded by the State Government.

### **Stakeholder Engagement**

The City, in conjunction with the City of Vincent and the local Members of Parliament, have engaged with the local community to provide feedback to MRWA on a new roundabout configuration, signalling upgrades and improved pedestrian crossing facilities.

During the concept design stage in 2020, the City undertook consultation with the surrounding community of Osborne Park and Joondanna to determine the level of support for the Concept Design shown in Figure 1. The consultation included direct letters sent to surrounding residents, notices on the City's website and several social media posts.

A total of 56 responses were received during the consultation period, with 79% of respondents indicating support for the plans put forward by MRWA. Further details on the survey responses are provided in Attachment 1.

No specific public consultation has been undertaken on the final design.



### **Options Summary**

The following options were considered.

	OPTIONS						
1.	That the City SUPPORTS the Scarborough Beach Road / Green Street 100% detailed design, subject to further microsimulation traffic modelling by Main Roads WA which demonstrates an adequate level of service along the adjoining roads of Scarborough Beach Road, Main Street, Brady Street and Green Street.						
2.	That the City DOES NOT SUPPORT the Scarborough Beach Road / Green Street 100% detailed design due to the uncertainty of impacts on the local road network.						

### **Recommended Action**

The City is generally supportive of the proposed upgrades to the intersection, as this location has been the subject of numerous queries and concerns over many years. However, there are still outstanding concerns and the City considers that further investigation is warranted.

It is recommended that approval of the 100% design is provided to MRWA, subject to traffic modelling which demonstrates that the traffic queuing / congestion along Main Street, Scarborough Beach Road, Brady Street and Green Street be no worse than prior to the inclusion of the roundabout and secondary treatments associated with the 100% detailed design.

### **Relevant Policies, Legislation and Council Resolutions**

Local Government Act 1995

### **Sustainable Stirling 2022-2032**

Key Result Area: Our built environment

**Objective:** An accessible and connected City

**Priority:** Provide and maintain safe and accessible roads and parking



### Strategic Risk

Strategic Risk	Risk Appetite
Reputation	The City will ensure that any decisions that may affect the City's reputation are made at the appropriate level with stakeholders remaining informed and engaged.
Community	The City will ensure that it engages with the community in accordance with its Community and Stakeholder Engagement Plan.
Funding	The City will take sufficient financial risk to enable it to achieve its strategic objectives, providing it does not significantly impact on the long term financial sustainability of the City.

### **Relevant Documents and Information**

**Attachments** 

Attachment 1 - Results of Community Consultation <a>J</a>

Available for viewing at meeting

Nil

**Linked Documents** 

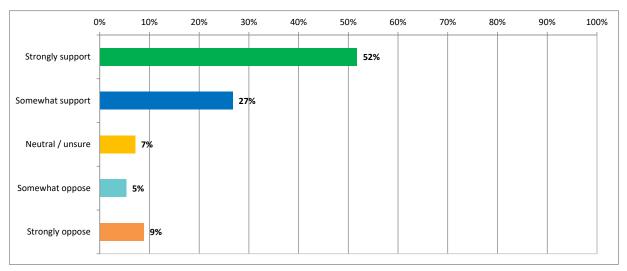
Nil





Do you support the design proposed by Main Roads for upgrades to the Scarborough Beach Rd/Green St/Main St intersection?

Answers	Responses	%
Strongly support	29	52%
Somewhat support	15	27%
Neutral / unsure	4	7%
Somewhat oppose	3	5%
Strongly oppose	5	9%
Total	56	

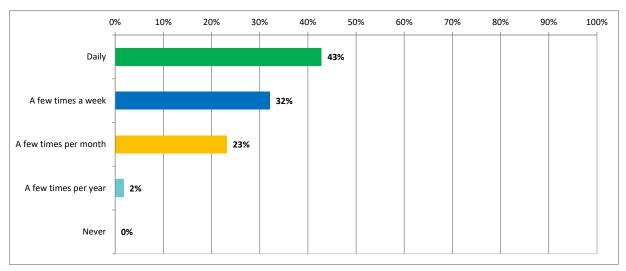






Approximately how often do you use the intersection?

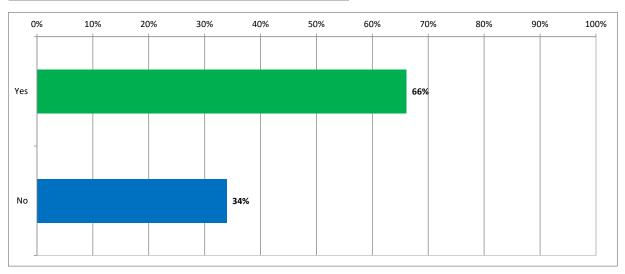
Answers	Responses	%
Daily	24	43%
A few times a week	18	32%
A few times per month	13	23%
A few times per year	1	2%
Never	0	0%
Total	56	





Do you live near the Scarborough Beach Road/Green Street intersection (within approximately 2 kms)?

Answers	Responses	%
Yes	37	66%
No	19	34%
Total	56	

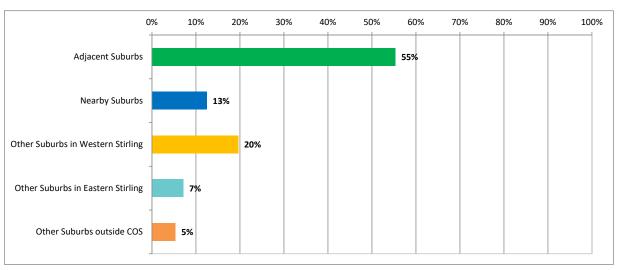






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Categories	Responses	%	
Adjacent Suburbs	31	55%	Joondanna, Osborne Park, Glendalough, Mt Hawthorn
Nearby Suburbs	7	13%	Tuart Hill, Stirling, Wembley, Yokine
Other Suburbs in Western Stirling	11	20%	Doubleview, Innaloo, Scarborough, Wembley Downs, Karrinyup, North Beach
Other Suburbs in Eastern Stirling	4	7%	Dianella, Mirrabooka, Nollamara
Other Suburbs outside COS	3	5%	Floreat, West Perth, Noranda
Total	56		

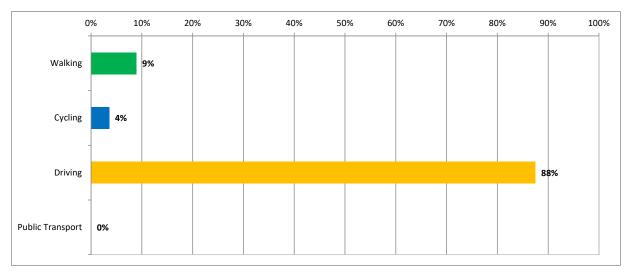






By what mode of transport do you most frequently use the intersection?

Answers	Responses	%
Walking	5	9%
Cycling	2	4%
Driving	49	88%
Public Transport	0	0%
Total	56	

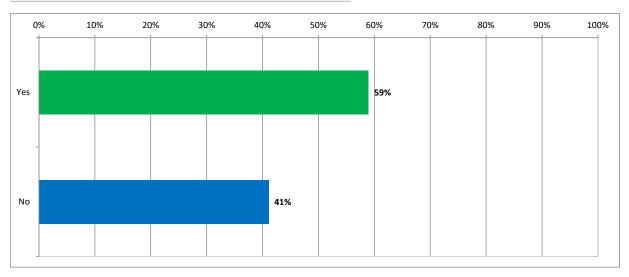






Is the Scarborough Beach Road/Green Street intersection part of your regular commute?

Answers	Responses	%
Yes	33	59%
No	23	41%
Total	56	

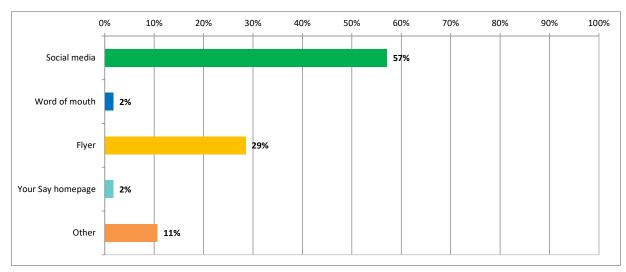






How did you hear about this project?

Answers	Responses	%
Social media	32	57%
Word of mouth	1	2%
Flyer	16	29%
Your Say homepage	1	2%
Other	6	11%
Total	56	







Would you like to be kept informed about this project?

Answers	Responses	%
Yes	47	84%
No	9	16%
Total	56	

