



# Brimbank Climate Emergency Plan 2020-2025

**Annual Report Card 3**  
**1 July 2022 - 30 June 2023**

# Introduction

2022-2023 was year three of the implementation of the Brimbank Climate Emergency Plan 2020-2025 - Let's Co- Create Our Future (the Plan). Year three of the Plan saw new projects begin and ongoing projects continue to deliver positive results, showing Brimbank's continued commitment to the Climate Emergency.

The Plan recognised Council's responsibility to lead a socially just, science-based, coordinated public policy response to the crisis and sets a target of zero-net emissions for Council operations by 2030, and by 2040 for the municipality. The five themes for action under the Climate Emergency Plan are: People Power, 100% Renewable, Resilient Rebuild, Green and Cool and Circular Economy.

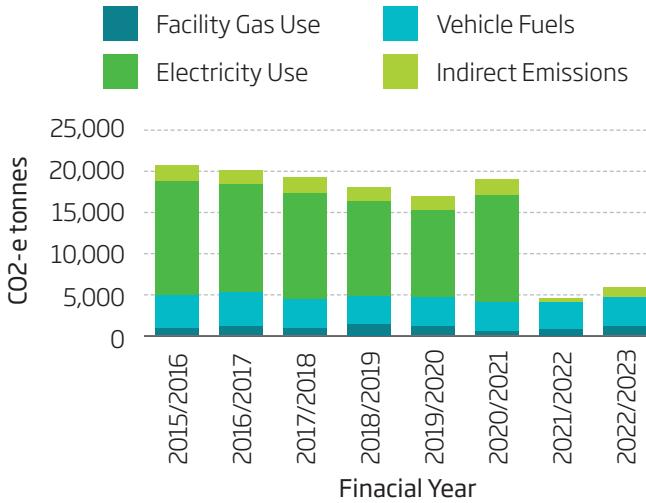
Brimbank Aquatic and Wellness Centre opens its doors

Another big success was the opening of the Brimbank Aquatic and Wellness Centre. This is a huge milestone for Brimbank City Council and proof that it is possible for these traditionally energy intensive council facilities to run off 100% renewable energy.

Compared to a conventional gas powered design, the all-electric and renewable energy powered centre is modelled to avoid 1,192 tonnes of greenhouse gas emissions per annum, approximately 17 per cent reduction of Council's overall annual greenhouse emissions.

## Brimbank City Council Corporate Emissions

Brimbank City Council's emissions have traditionally come largely from a combination of facility gas, vehicle fuels and electricity use. Council has reduced corporate greenhouse gas emissions by 78% over the last 10 years. We have achieved this largely by installing roof-top solar, energy efficiency upgrades and purchasing 100% renewable electricity via the Victorian Energy Collaboration (VECO).





# 100% Renewable: Growing our Energy

## Key evaluation question:

What evidence is there that Brimbank is moving towards 100% renewable energy by 2030 and is decarbonising to zero net emissions by 2040?

### Project wins and milestones

- The Brimbank Aquatic and Wellness Centre opened its doors on 12 September 2022 as Australia's first 100% renewable energy powered, zero greenhouse gas emissions aquatic centre. The following features enable the centre to run off all electric energy:
  - Four pipe heat pump for simultaneous use in pool and domestic water heating and space heating and cooling throughout the centre.
  - A 500kW onsite rooftop solar PV system, the largest of any aquatic centre in Australia.
  - A thermal energy storage system with a capacity of 88,000L
  - Remaining electricity needs for the centre provided from wind farms in regional Victoria via a long term contract with Red Energy as part of VECO - the Victorian Energy Collaboration.

The facility is 76% more efficient in energy use in operation than a typical equivalent gas powered facility. It is estimated that by being all-electric, Council has saved over \$353,000 over the first 10 months of operation. Modelling suggests that over \$2,100,000 will be saved over 5 years if current gas price trends continue.

Since opening, Brimbank has been facilitating tours of the centre and sharing information with councils and aquatic centres across Victoria and NSW.



Brimbank Aquatic and Wellness Centre

- Brimbank Council was successful in receiving \$500,000 in grant funding from the Federal Government for a Community Battery to be installed in Sunshine. The battery will be used to store energy generated from local renewable energy sources. Stored energy will then be dispatched for use when needed most.
- To complement Council's Street Lighting Project completed last year, 160 decorative street lights have been replaced with energy efficient LED. The new lighting is set to avoid 21 tonnes of carbon dioxide emissions per year.
- Council's Solar Pavilion program delivered three new solar systems on Council owned sporting facilities with a new 12.45kw system at McKenchie Pavilion, a 12.45kw system at Keilor Sports Club Pavilion and a 2.45kw system at Ainsworth Pavilion.
- Council are moving ahead with degasification and have conducted studies to prepare for the transition to all-electric at Sunshine West Community Centre and Keilor Community Hub.
- A feasibility study was completed for upgrading power infrastructure at Sunshine Multideck Carpark and Keilor Operations Centre to support the transition of Council's fleet to electric vehicles.
- Through the Western Alliance for Greenhouse Action (WAGA) Council made a submission to the federal governments Fuel Efficiency Standard Consultation paper with key recommendations advocating strong standards that encourage zero emissions vehicle update.
- Also through WAGA, Council made a submission to the federal governments proposed amendments to the Safeguard Mechanism aimed at the largest emitters in Australia. The submission advocated that the mechanism drive genuine carbon emissions reductions and not a reliance on offsets, as well as driving increased market participation.



# People Power: Growing our Voice

## Key evaluation question:

What evidence is there that the Brimbank community is more active in organising to respond to the climate emergency locally and more broadly, and that people are able to access quality education and other means to overcome barriers to sustainable living?

## Project wins and milestones



Brimbank City Council and the Western Alliance for Greenhouse Action partnered with renewable technology experts Renew for the first time in 2023 to hold an online workshop series providing expert, independent advice on sustainable solutions for households in the West. The topics presented as part of the 100% Renewable Brimbank program included all-electric homes, solar and batteries, energy efficiency, buying green power, electric vehicles and more.

- Antarctica: All To Lose photo exhibition by Lea Kannar-Lichtenberger, was one of a number of environmentally themed art exhibits held across Brimbank in 22/23. It explored how contemporary consumer culture through tourism is impacting the remote location.



Antarctica: All To Lose photo exhibition by Lea Kannar-Lichtenberger

- Council hosted over 50 environmental sustainability related events over 22/23 with over 1000 people attending. Events were hosted across Brimbank including at libraries, Neighbourhood Houses, online and in habitat and conservation reserves. They included planting days, renewable energy expert topic webinars and workshops on growing your own food and avoiding food waste to name a few.

- Five Energy Efficiency Kits and two Thermal Imaging Camera Kits were made available in Brimbank Libraries in 2023 for hire to help Brimbank residents make improvements to their home energy efficiency. Combined, the kits have been hired 25 times in total since their launch in early 2023 with a steady ongoing demand. These are set to help home owners and renters alike save on energy bills and cut energy use.

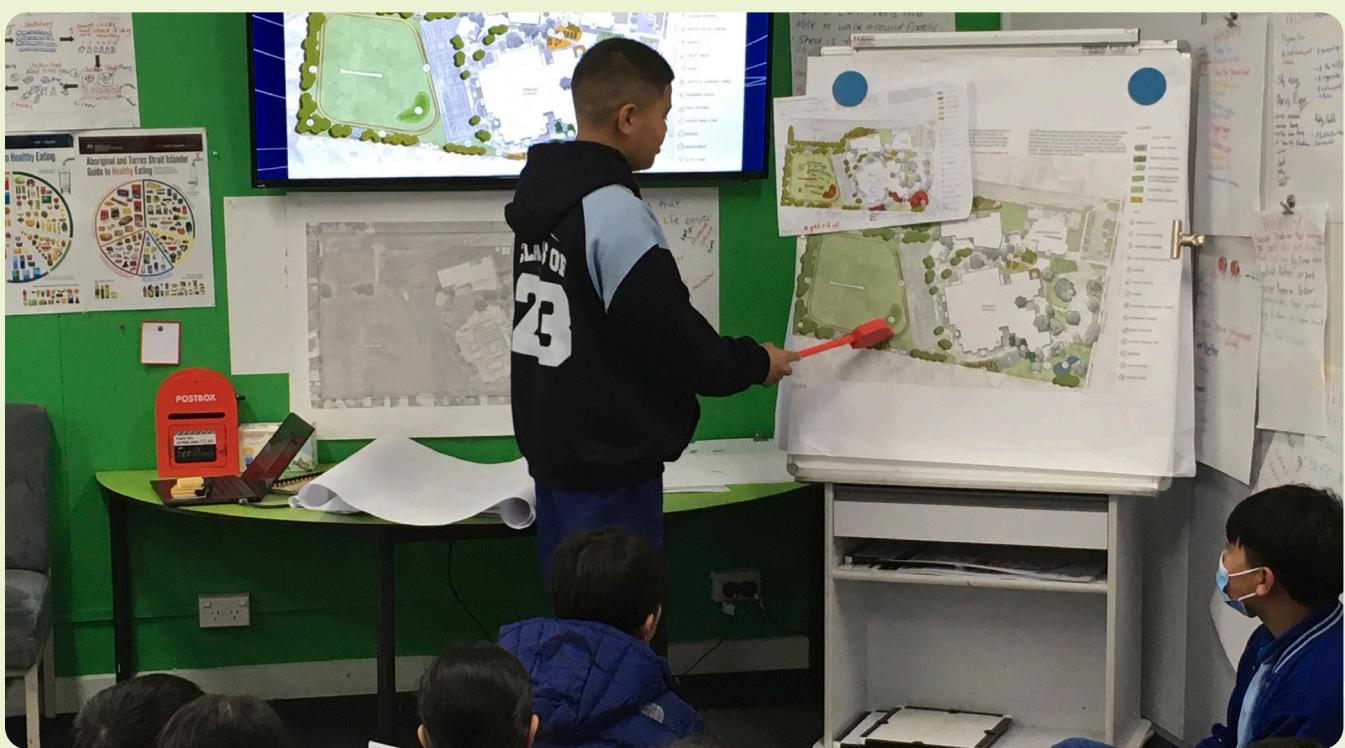
- Brimbank participated in the Heat Safe Spaces project in which six Council facilities were assessed for heatwave resilience to form the basis of a community resilience project. Council was awarded \$5,000 funding as part of the project, to be used to develop cool packs for community members who access Council facilities that are promoted as 'cooler spaces' during heat events.

- Brimbank youth collaboratively developed public messaging as part of the Youth Heatwave Awareness Program last year. This year, the messages were used during heat wave events and are now an ongoing community engagement tool as part of Council's Municipal Heatwave Plan.

- Brimbank participated in a nationwide Electrify Everything campaign to help promote the benefits of switching to all-electric energy in the household and made a Go Electric Plan available a part of the 100% Renewable Brimbank program.

## Heat wave action

A key theme explored this year is our response to heat wave emergencies. This includes actions we can take to improve community resilience by keeping our streets, schools and public places green and cool. Projects including the **Climate Oasis in Schools program**, the commencement of the **Heatwave Safe Spaces project** and our ongoing commitment to **increase tree canopy cover to 30% by 2046** through planting and maintaining canopy trees in the municipality are some ways we're working to address this.



Students working on a school masterplan as part of the Climate Oasis in Schools project



# Green and Cool

## Key evaluation question:

What evidence is there the municipality is getting greener and cooler, that habitat for threatened flora and fauna is protected and connected, and that people are adopting a climate and health friendly relationship with food?

## Project wins and milestones



The Climate Oasis in Schools program saw more than 50 students from Movelle Primary School and Copperfield College Junior Campus participate in five workshops to co-design landscape masterplans for their schools. The masterplans were developed with help from Landscape Architects from Pollen Studio and Brimbank City Council and are a first step for these schools to improve liveability, support local biodiversity and improve their resilience against the effects of heat waves.

As part of these workshops, students learnt about the climate emergency and the role of urban greening in creating a climate oasis. They also participated in activities to identify local flora and fauna and designed their own school masterplan

- A mix of over 74,000 trees, shrubs, wildflowers and grasses were planted in Brimbank in 22/23.
- A study into tree canopy cover over a four year period has shown despite densification increasing in the municipality, canopy cover has stayed stable or increased in 19 out of 25 of all suburbs within the Brimbank municipality.
- Improved urban streetscape projects are underway at Derrimut Street, Albion where a new pocket park is being established. New trees and passive irrigation garden beds are also being implemented as part of a new look Suffolk Road shopping strip in Sunshine North.

- Multiple tree planting events were held with schools and community groups in 22/23. An example of this was the tree planting days held with Sunshine Heights Primary School and Ardeer South Primary School Students in Sunshine West. Children from Grades 3 and 4 and from the Environment Committee participated to plant 200 seedlings across both schools. Following the event, an additional 3000 seedlings were planted at the school by Council contractors as part of our commitment to support the urban forest canopy cover and provide a cool and green environment for the school community.



Sunshine Heights Primary School tree planting



# Resilient Rebuild

## Key evaluation question:

What evidence is there that the resilient rebuild is occurring in Brimbank via sustainability improvements to the built environment, and that people are getting around more easily and often on foot, by bike, or by public transport?

## Project wins and milestones



In December 2022, Council endorsed the Draft Sunshine Energy Park Vision Plan for consultation.

The proposal for the 54 hectare Sunshine Energy Park is to serve the emerging Sunshine CBD to the south, as well as connect to the Sunshine Hospital precinct to the north. The park is directly adjacent to the 40 hectare Albion Quarter urban renewal precinct.

The Draft Plan includes proposals for:

- a sustainability and community hub
- a solar farm
- urban forest
- a state significant indoor stadium and
- new sports fields

In June 2023, consultation with community, surrounding landowners and key stakeholders commenced.



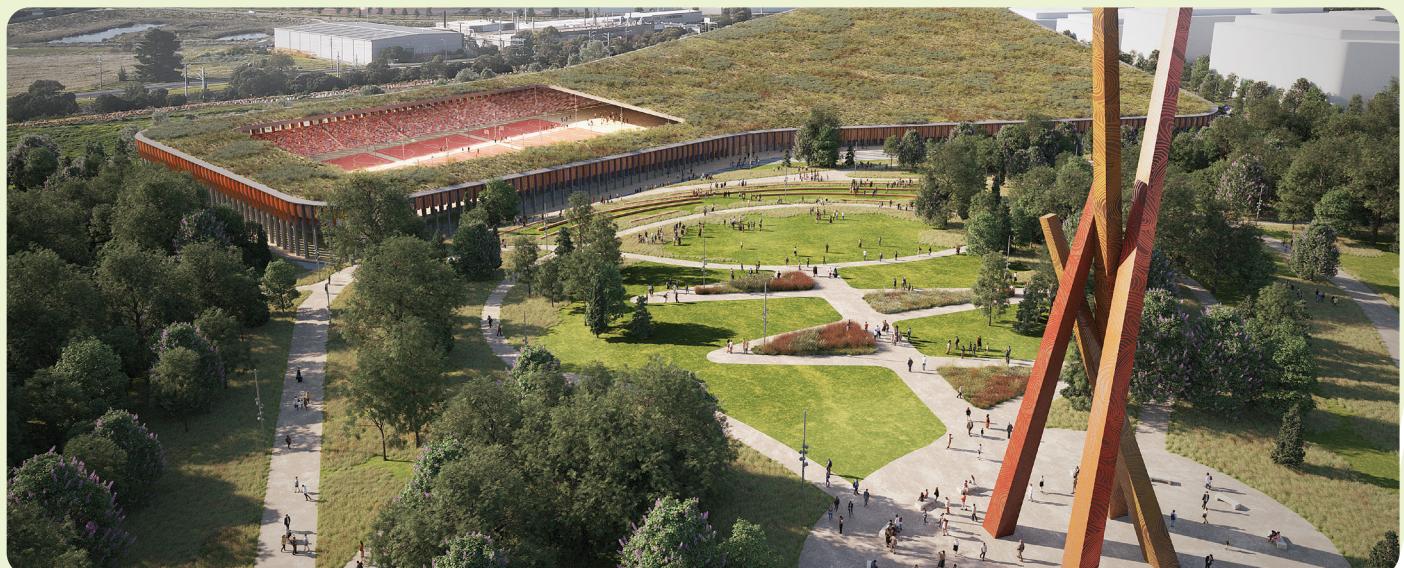
Brimbank Council has been provided with \$2.7 million for the delivery of a range of active transport projects and cycling connections across the Sunshine Precinct as part of the Sunshine Transport Precinct Activation Program.



Brimbank City Council was one of many voices as part of the CASBE alliance who contributed to the great outcome of strengthened state wide Environmentally Sustainable Design requirements. These will come into effect within the National Construction Code from October 2023 onwards. Changes include minimum 7 Star NatHers rating for all new builds and EV ready electrical infrastructure to be implemented in new apartment buildings.



Through the Australian Local Government Association, Council advocated to the federal government for strong leadership and financial support to improve disaster mitigation and resilience efforts to lessen the impacts on local assets and infrastructure through our Submission To The Emergency Response Amendment (Disaster Ready Fund) Bill and our submission into the Inquiry Into The Implications Of Severe Weather Events On Roads.



Artists impression from the Sunshine Energy Park Draft Vision Plan

# Circular Economy

## Key evaluation question:

What evidence is there that the Brimbank economy is reducing the amount of waste to landfill, and maximising the reuse and recycling of other products?

## Project wins and milestones



From 1 July 2022, food scraps were accepted in Council's opt-in green waste bin service, now making green bins inclusive of Food Waste and Organic Waste (FOGO). To help spread the word Council delivered a campaign focusing on the benefits of FOGO for the environment and to transition to a circular economy. Over the past year residents diverted over 15,000 tonnes of food and garden organics from landfill

Council held two Reusable Drop off Days this year where residents could donate unwanted household items in good condition, with the purpose of reuse. Items collected included kitchen and electrical appliances, bicycles, furniture, linen and clothing. A total of 168 residents participated over these events and charities including West Welcome Wagon, Helping Hands Mission and Green Collect collected reusable goods for redistribution.

22 Brimbank Council residents celebrated National Recycling Week 2022 by attending a tour of Veolia's organic processing facility. This facility uses Australian-made technology to turn thousands of tonnes of organic waste into high-grade compost and mulch. Participants witnessed what happens after their food and garden organics bin is emptied including processing and new products created.

Brimbank City Council, in partnership with the Australian Road Research Board (ARRB), Sustainability Victoria (SV) and the Victorian Department of Transport (DoT) is using recycled crushed glass and recycled asphalt as a replacement for natural sand to construct roads within the municipality. The new sustainable asphalt mix will be independently monitored for performance under a new research trial.

The sustainable asphalt mix will be used to resurface Newbury Street and Gould Street. The mix equates to 17 tonnes of recycled crushed glass - or that's 34,000 glass bottles collected from Brimbank recycling bins - and up to 34 tonnes of recycled asphalt.

Brimbank City Council's updated catering services tender specifications encourage sustainable environmental practices including low 'food mileage' and minimized packaging as part of requirements for businesses providing catering for Council events.

Brimbank's Bin Feedback program launched to help gather data on contamination rates in recycling and Food Organics and Garden Organics (FOGO) kerbside bins, as well as to help educate residents on how to improve. As part of this program Council will inspect 1000 recycling and FOGO bins each month. Residents will receive direct feedback via a bin tag and postcard.

Other exciting circular economy initiatives over 22/23 included:

- A reusable nappy education program for local families and Council maternal healthcare nurses. The program includes a reusable nappy starter pack for participants.
- Reusable Party Kits are now available for loan via five participating neighbourhood houses. Email [environment@brimbank.vic.gov.au](mailto:environment@brimbank.vic.gov.au) to make a booking.
- The Wash Against Waste initiative was rolled out at the annual Christmas Party, avoiding over 1,000 disposable pieces of catering ware.



Reusable Drop-off Day



Reusable Party Kit



Tour of the Veolia organic processing facility

# Challenges

Climate change is a pressing issue for Brimbank City Council that is already having social, economic and environmental impacts in our municipality. While we are taking steps to tackle these impacts, more needs to be done and some issues are tougher than others. Three key challenges for Council are:

## Getting off gas.

Natural gas is used in at least 38 Council facilities. Using gas as an energy source in Council means using a fossil fuel which, unlike our electricity, cannot be sourced renewably. Degasification of our facilities is a key step towards zero net emissions for Council operations by 2030 but comes with a significant up front cost as we switch over gas systems and appliances to electric alternatives. However, over the long term getting off gas is expected to save Council money.

To 'get off gas' we are implementing three key actions. The first is to ensure no new gas systems or appliances are installed in Council facilities. The second is to ensure an end-of-life gas appliance is replaced with an electric alternative. The third is to develop a degasification plan which prioritises the replacement of all gas appliances over time.

## Fleet transition to electric vehicles.

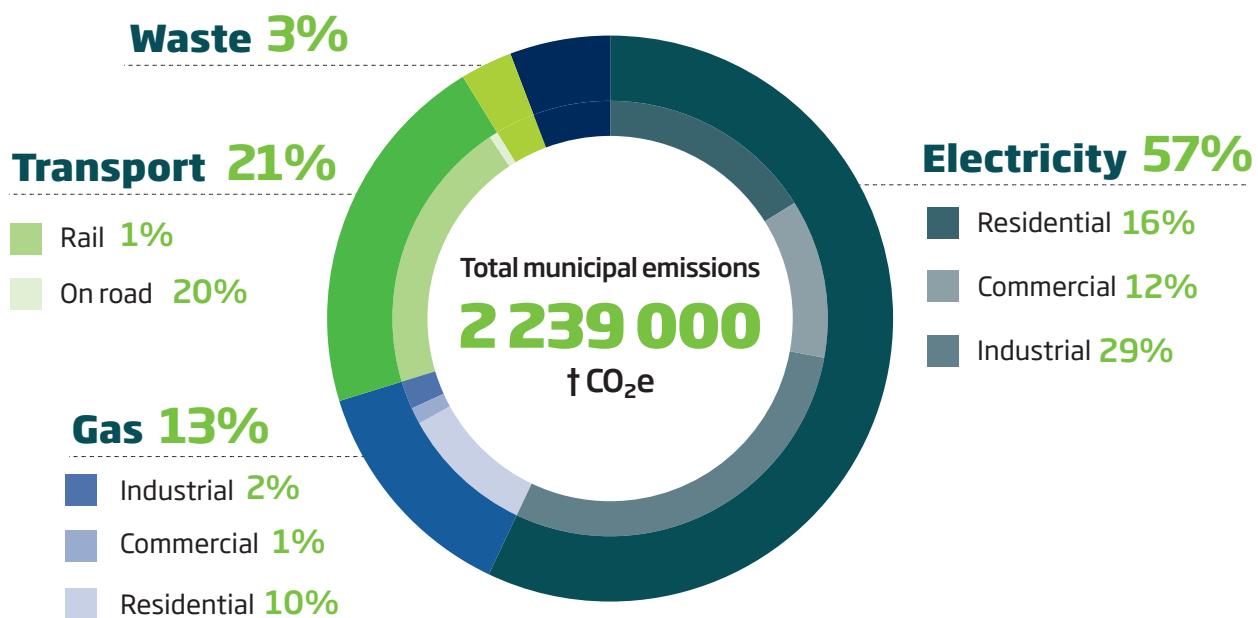
Council's fleet of vehicles includes passenger vehicles, utes, small & large trucks. The great majority of these are Internal Combustion Engine (ICE) vehicles powered by petrol or diesel. To meet zero net emissions for Council operations by 2030 means converting as many of these as possible to electric vehicles (EVs). The challenge with this is that currently, not all vehicles have an electric alternative and that for those that do, the electric version is generally much more expensive to purchase. However, EVs are cheaper to run and maintain.

## Net zero community emissions by 2040.

Our Climate Emergency Plan sets a target of net zero community emissions for the municipality by 2040. This will be an enormous challenge as Council has limited influence on the controlling factors for the majority of those emissions sources. The biggest source of emissions for the community in Brimbank is energy use (gas and electricity sourced from fossil fuels) and transport. Supporting the community to achieve net zero emissions is a high priority for Council.

The figure below shows that Brimbank's municipal emissions largely comes from a combination of electricity, gas and vehicle fuels.

## Total Municipal Emissions



Brimbank City Council's Annual Budget 2022-23 included a range of initiatives for building a more sustainable Brimbank.

**5.03% of the total budget was 'green tagged'**



### People Power



Environmental stewardship, education and community empowerment

**\$2.9M**

### Circular Economy



Recycling, food organics and garden organics (FOGO), reuse and circular economy programs

**\$2.9M**

**Green tagged annual budget 2022-23**

**\$ 14.5M**

## Building a sustainable Brimbank



### Cool and Green



Urban design, parks, integrated water management, ecological management and rehabilitation

**\$5.6M**

### 100% Renewable



Solar PV and electrification, lighting and appliance upgrades

**\$1M**

### Resilient Rebuild



Walking and cycling infrastructure, pedestrian facilities, environmentally sustainable design

**\$2.1M**

# Brimbank City Council

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