

ESD REPORT

81-95 BURNLEY STREET AND 26-34 DOONSDALE STREET, RICHMOND

Prepared for
Astrodome Hire Pty Ltd

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INTRODUCTION

GIW Environmental Solutions has been engaged by Charter Keck Cramer on behalf of Astrodome Hire Pty Ltd to provide ESD consulting in relation to the proposed rezoning of land at 81-95 Burnley Street and 26-34 Doonside Street, Richmond. The land is proposed to be rezoned from Industrial 3 Zone to Mixed Use Zone.



Figure 1: Site at 81-95 Burnley Street and 26-34 Doonside Street, Richmond

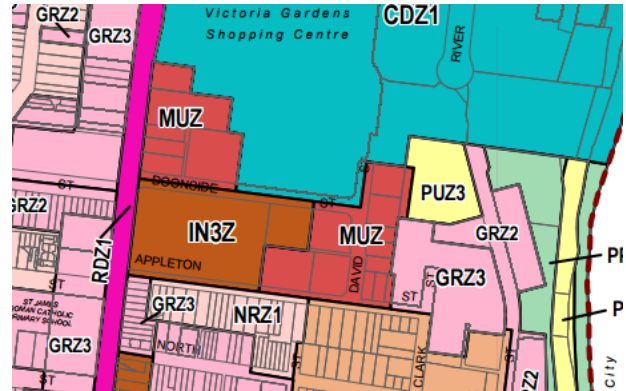


Figure 2: Existing zoning of site

This ESD Report identifies and summarizes the State and Local strategic and statutory policies that apply to environmentally sustainable development at this location; discuss the ESD benefits of rezoning and potential future redevelopment of the site as a mixed use offering. We will identify ESD objectives which are to be addressed as part of the proposed rezoning and which are to be instilled into any future development on the site such that the facilities demonstrate leading design and ESD best practice.

SITE CONTEXT

The site at 81-95 Burnley Street and 26-34 Doonside Street, Richmond is currently the location of a commercial building operated under the business name "Harry the Hirer". The site is comprised of several commercial storage buildings, office and showroom areas (part heritage listed), outdoor car parking and a small heritage listed building on the north-east extend of the site. The proposal is to rezone the property from Industrial 3 Zone to a Mixed Use zone, which is defined as:

"The Mixed Use Zone enables a range of residential, commercial, industrial and other uses which complement the mixed use function of the locality, providing housing at higher densities which responds to the existing or preferred character of an area." (Victoria Department of Environment, Land Water and Planning, 2013)

It is anticipated that the proposed mixed use site may incorporate the following uses:

- Residential
- Commercial
- Retail
- Home Office

POLICY FRAMEWORK BACKGROUND - STRATEGIC

The following State and Local policies set the strategic objectives by which the proposal to change the site zoning is to be contextualized.

STATE POLICY

Several strategic policy documents have been formulated by State Government which define the strategic vision and objectives for sustainable development. These include, but are not limited to:

Urban Sustainable Development

“Plan Melbourne 2017-2050” (2014) targets outcomes of making the Melbourne region more livable, resilient and encourages sustainable growth by effectively linking sustainable transport (walking, cycling and public transport) routes. It seeks to improve the environmental performance of the Melbourne region and create a greener city.

Energy

“Victoria’s Renewable Energy Roadmap” (2015) addresses the priority to encourage households and communities to generate renewable energy through the following strategies: provide support for pioneering community energy projects; ensure fair compensation for distributed generation and ensure fair treatment of distributed generation customers.

Water

In order to secure a strong and resilient water future, State Government is currently developing a final water plan based on the “Water for Victoria White Paper” (2016). In this strategy the need for responding to climate change and developing resilient and livable cities and towns, is addressed. The discussion paper proposes to ensure a range of water sources to support urban livability, developing place-based solutions with input from communities to deliver, safe and secure supplies, wastewater management, flood resilience, healthy urban waterways, healthy urban landscapes, integrated water management, with water corporations working in partnership with local government, engaging and empowering the community to help achieve water management outcomes together.

Waste

In 2015 State Government published the “Statewide Waste and Resources Recovery Infrastructure Plan”. This plan will form a roadmap to achieve the following four goals:

- Goal 1: Landfills will only be for receiving and treating waste streams from which all materials that can be viably recovered have been extracted.
- Goal 2: Materials are made available to the resource recovery market through aggregation and consolidation of volumes to create viability in recovering valuable resources from waste.
- Goal 3: Waste and resource recovery facilities including landfills are established and managed over their lifetime to provide best economic, community, environment and public health outcomes for local communities and the state and ensure their impacts are not disproportionately felt across communities.
- Goal 4: Targeted information provides the evidence base to inform integrated statewide waste and resource recovery infrastructure planning and investment at the state, regional and local levels by industry, local government, waste and resource recovery groups, government agencies and the broader community.

Ecology and Biodiversity

The EPA state environmental protection policies (SEPPs) consist of policies concerning the protection of air quality, land and groundwater, noise nuisance and water.



LOCAL POLICY

City of Yarra has a well-developed and comprehensive Environmental Strategy titled “Yarra Environment Strategy 2013-2017” (2013) which seeks to ensure a sustainable future. This document outlines the following vision for the City of Yarra:

“Yarra is a resilient and sustainable city where current and future populations enjoy a high quality of life within our fair share of the earth’s resources, whilst ensuring we co-exist harmoniously with the natural environment.”

The environmental focus of this strategy is on the following categories:

- Sustainable Living and Working
- Ecology and Natural Environment
- Sustainable Transport
- Sustainable Business
- Sustainable Built Environment
- Waste Management
- Greenhouse Gas Emission
- Water Consumption and Quality
- Climate Change Resilience and Food Systems

Sustainable Living and Working

City of Yarra aims to enhance community awareness and increased engagement with Yarra’s local environment and nature. Moreover, Yarra seeks to support and connect neighbours to take collective action for sustainable consumption and lifestyles.

Ecology and Natural Environment

City of Yarra’s Open Space Strategy (2006) seeks to stimulate open space, completing the gaps in the linear trail networks along the waterways, providing more park infrastructure i.e. seats, tables, shelters, toilets etc., improving the environmental values along the waterway corridors including the Yarra River, incorporating environmental sustainability principles into future park design, maintenance and management practices.

Sustainable Transport

City of Yarra has produced different strategic documents including “Strategic Transport Statement” (2006), “Encouraging and Increasing Walking Strategy” (2005), “Bicycle Strategy” (2010) and “Parking Management Strategy” (2013) that aim to reduce car dependency by promoting walking cycling and public transport use as a viable and preferable alternatives.

Sustainable Business

City of Yarra is committed to support sustainable business operations in order to increase efficiency and reduce environmental impact. To that end the Yarra Energy Foundation has been created with the express charter to inspire and empower the Yarra community to reduce their carbon footprint to zero.



Sustainable Built Environment

In 2011 the Sustainable Design Assessment in the Planning Process (SDAPP) framework was introduced to ensure Councils' achieve their environmental targets in regards to sustainability in the built environment. SDAPP describes 10 key sustainability categories that need to be addressed in planning applications and seeks to go beyond the requirements as prescribed in the Building Code of Australia (BCA).

- Indoor Environment Quality
- Energy Efficiency
- Water Efficiency
- Stormwater Management
- Building Materials
- Transport
- Waste Management
- Urban Ecology
- Innovation
- Construction and Building Management

Furthermore, several strategic documents "City of Yarra Urban Design Strategy" (2011), "Open Space and Recreation Shading" (2011), "ESD Building Policy" (2014), "Asset Management Policy" (2011) have been introduced to ensure sustainable infrastructure and built form.

Waste Management

The waste strategy developed in "City of Yarra Waste and Resource Recovery Strategy 2014-2018" (2014) is guided by three objectives; generate less waste, increase the amount of materials which are recycled and reduce damage to our environment caused by waste.

Greenhouse Gas Emission

City of Yarra has set the following targets for Greenhouse Gas reduction by 2020:

- 20% reduction of Greenhouse gasses by the commercial and industrial sector.
- Carbon Neutral operations for City of Yarra.

Furthermore, greenhouse gas reduction in the built environment is to be guided by SDAPP which is currently prescribing a 10% reduction of greenhouse gas for new building and extensions against the provided benchmark.

Water Consumption and Quality

City of Yarra has made a commitment to provide leadership in sustainable water management. In order to achieve this target the following overarching objectives have been formulated in the "Water Action Plan" (2006): Reduce water consumption, improve stormwater quality entering the Yarra River and local creeks, and demonstrate positive change within Council to facilitate community action in water conservation and stormwater quality improvement.

This strategy was reinforced and expanded upon in the "Water Sensitive Urban Design Guidelines" (2011) in which Council commits to the following goals: reduction of potable water use, maximising water re-use, reduction of wastewater discharge, minimisation of stormwater pollution before discharge to receiving waters, and protection of groundwater.

Climate Change Resilience and Food Systems

City of Yarra aims to stimulate Urban Agriculture through the introduction of the "Urban Architecture Strategy 2014-2018" (2014). The strategy seeks to strengthen and facilitate education and training in the area of urban agriculture, support community leaders in developing urban agriculture in their local communities, facilitate opportunities for the inclusion of urban agriculture into the community.



POLICY FRAMEWORK BACKGROUND - STATUTORY

The consideration for ESD at the rezoning phase presents an opportunity to inform the framework plan such that the site and its site context facilitate an holistic ESD approach. Any future development of the site is to address the following statutory planning scheme objectives under the Yarra Planning Scheme:

21.05 Built Form focusses on protecting heritage places and a built form that maintains identified local character, encourage community interaction and activity and protect and enhance landscape qualities.

21.06 Transport aims to reduce car dependency by promoting walking, cycling and public transport.

21.07 Environmental Sustainability has the objective to promote environmentally sustainable development, protect wildlife, balance ecological and recreational values of waterway corridors and improve water quality and flow characteristics of storm water run-off.

22.10 Built Form and Design Policy addresses environmental sustainability as one of the building blocks that guide built form and design. The following environmental sustainable design objectives are formulated; ensure that new development is environmentally sustainable, minimise the use of energy and natural resources in the construction and operation of buildings, facilitate on-site stormwater infiltration or collection for reuse, reduce the impact of stormwater run-off on the drainage system, reduce the impact of stormwater on the water quality of the Yarra River, Darebin and Merri Creeks.

22.16 Stormwater Management (Water Sensitive Urban Design) prescribes that all new building, extensions (larger than 50m²) and subdivision in business zones will need to implement a water sensitive urban design strategy in order to achieve improved stormwater quality and reduce the impact of urban development on waterways and receiving water bodies.

22.17 Environmentally Sustainable Development prescribes that all residential and non-residential buildings will need to achieve a best practice standard in environmental sustainable development from the design stage through to construction and operation. Buildings will be benchmarked against the Built Environment Sustainability Scorecard (BESS) that is based on the SDAPP framework.

52.06 Car parking has the objective to ensure an appropriate number of car parking spaces have been provided to the development in accordance with table 1 to Clause 52.06-5.

52.34 Bicycle Facilities prescribes that all new buildings are required to implement bicycle facilities in accordance with this Table 1 to Clause 52.34-3 in order to encourage cycling as a mode of transport.



SITE SPECIFIC RESPONSE

The site at 81-95 Burnley Street and 26-34 Doonside Street, Richmond is proposed to be rezoned from an Industrial 3 Zone to a Mixed Use Zone. An indicative framework plan has been developed by Tract Consultants that indicates the locations and site uses of a proposed development at the site. Refer figure 1 below.

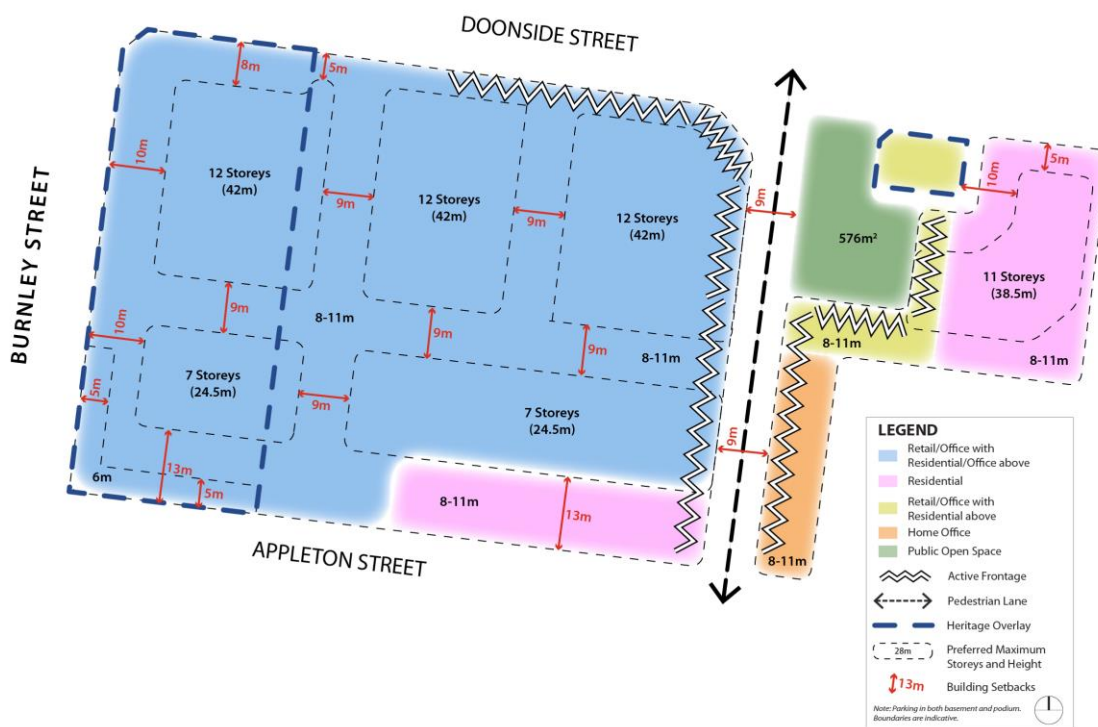


Figure 3: Indicative Framework Plan

The indicative framework will be reviewed against the State and Local strategic objectives, and Local statutory ESD related policies. For the purposes of this exercise the categories prescribed under the City of Yarra - "Environmental Strategy 2013-2017" have been applied.

Sustainable Living and Working

The rezoning of the site will create interconnectedness and stimulate social cohesion by combining all proposed uses identified, on one site. Additionally, the site includes open landscaped areas available for residents, employees and the public to stimulate increased engagement with the local environment and nature. Adjacent to the open landscaped area is a communal activity area, located in the heritage building, which should be provided for residents and the local community. It is proposed to have a workshop which in itself references the heritage usage of this building.

The rooftops of the proposed residential buildings should be activated for communal activities, engaging with nature and on-site renewables.

Ecology and Natural Environment

With the rezoning of the site a commitment should be made to incorporate public open space that will include seating options and extensive native vegetation. The proposed site will provide an improved connection with the Yarra river bicycle trail and waterways corridors which will stimulate local residents and visitors to use these facilities on a more frequent basis.

A commitment should be made to include sufficient permeable area on site and integrate native vegetation and vegetable gardens on rooftops and greening of building facades.

The existing tree along Doonside Street is to be retained and shall become a focal point for social gatherings.

Sustainable Transport

The site is in close proximity of public transport, bicycle trails and primary walking ways which connect the site to shops, local activities and the Melbourne CBD. From a sustainable transport perspective this location is very suitable for mixed use development.

The proposed development will promote cycling and pedestrian activity through the following:

- Residents will be stimulated to reduce their car dependency by incorporating 1 secure bicycle space per apartment and a site design that promotes the use and accessibility of the Yarra river bicycle trail and on street bicycle paths;
- Commercial tenancy parking to be provided at a ratio of 1 bicycle space per 100m² of food and drinks tenancy and 1 bicycle space per 300m² of office space;
- Sufficient visitor bicycle parking spaces will be provided on-site.
- Walkway connectivity through the implementation of on-site primary and secondary throughout the site and connecting with the adjacent site to the north.

Sustainable Business

The on-site commercial spaces should make an effort to increase their energy efficiency and reduce their environmental impact.



Sustainable Built Environment

The proposed development and any future development at 81-95 Burnley Street and 26-34 Doonside Street, Richmond should seek to achieve a total BESS score $\geq 60\%$, with no critical category (Management, Energy, Water, Stormwater, IEQ) achieving below 50%.

Any development will take into consideration the following built form priorities:

- The majority of apartments have been designed to take advantage of north solar gains.
- Buildings are of mid- to high-rise and demonstrate residential densities in line with Plan Melbourne 2017-2050 Outcome 2.
- Consider natural cross-flow ventilation strategies to apartments.
- Consider spacing of apartment blocks to minimise overshadowing.

Waste Management

A commitment should be made to recycle 90% of demolition and construction waste when redeveloping the site. In a bid to minimise demolition waste, all heritage listed structures should be retained thus reducing landfill.

All future buildings should be equipped with separate on-site general, recycling, green and hard waste areas easily accessible for all occupants and tenants.

Greenhouse Gas Emission

The rezoning will likely increase the greenhouse gas emissions of the site, but the following measures will secure efficient use of fossil fuels:

- Existing commercial areas will be retrofitted to achieve a 20% energy efficiency improvement on the reference case defined in BCA Section J;
- Any development will integrate on-site renewable energy generation;
- Passive design strategies will be incorporated in any future development;
- The development will seek to install energy efficient systems.

Water Consumption and Quality

The rezoning will likely increase the total potable water use and contamination of stormwater runoff of the site, but the following measures will secure efficient use of potable water and sufficient water sensitive urban design strategies:

- 10% reduction of total potable water use relative to the BESS benchmark;
- A water efficient fire test system should be included by installing onsite recapture of test water;
- Rainwater should be harvesting from all roof areas and reticulated to rainwater tanks on site;
- Any development is to achieve $\geq 100\%$ STORM score for the total site.

Climate Change Resilience and Food Systems

As we continue to see pattern of global rising temperatures and fluctuations in weather patterns it is important that the development take due consideration of climate change risk and also makes provision for on-site self-sufficient food systems. Any future development will consider:

- The rooftops of the residential buildings should be used in part for food cultivation and composting of green waste.
- Through the inclusion of on-site rainwater harvesting and reuse we mitigate the risk of water shortages as a result of El Niño.
- Passive solar design will seek to address temperature rise by providing a high efficiency thermal envelope.

