

APPLICATION ON NOTIFICATION - CATEGORY 3

Applicant:	City of Mount Gambier			
Development Number:	381/E012/19			
Nature of Development:	Construction of an integrated multi-purpose community sport, events/function and recreation hub			
Type of Development:	Merit			
Zone / Policy Area:	Recreation Zone			
Subject Land:	10-18 O'Halloran Terrace, Mount Gambier (Olympic Park)			
Contact Officer:	Janine Philbey			
Phone Number:	08 7109 7062			
Start Date:	3 January 2020			
Close Date:	17 January 2020			

During the notification period, hard copies of the application documentation can be viewed at the Department of Planning, Transport and Infrastructure, Level 5, 50 Flinders St, Adelaide, during normal business hours. Application documentation may also be viewed during normal business hours at the local Council office (if identified on the public notice).

Written representations must be received by 17 January 2020 and can either be posted, faxed, hand-delivered or emailed to the State Commission Assessment Panel.

Any representations received after the close date will not be considered.

Postal Address:

The Secretary

State Commission Assessment Panel

GPO Box 1815 ADELAIDE SA 5001

Street Address:

Planning and Land Use Services

Department of Planning, Transport and Infrastructure

Level 5, 50 Flinders St ADELAIDE SA 5000

Email Address: scapreps@sa.qov.au

South Australian DEVELOPMENT ACT, 1993 REPRESENTATION ON APPLICATION – CATEGORY 3

Applicant	:		City of Mount Gambier				
Developm	nent N	umber:	381/E012/19				
Nature of	Deve	opment:	Construction of an integrated multi-purpose community sport, events/function and recreation hub				
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Contact Officer:			Janine Philbey				
Phone Nu	mber:		08 7109 7062				
Close Dat	e:		17 January 2020				
My Name:			My phone number:				
Primary m	ethod(s) of contact:	Email:				
			Postal Address:	Postcode:			
			ominated PRIMARY METHOD(s) OF CONTACT if you in Assessment Panel in support of your submission.	ndicate below that you wish to			
My interes			owner of local property				
			occupier of local property				
			a representative of a company/other organisation a	ffected by the proposal			
			a private citizen				
Γhe address o	of the p	property affec	ted is:				
				Postcode			
My interes			I support the development				
			I support the development with some concerns				
			I oppose the development				
Γhe specific a	spects	of the applica	tion to which I make comment on are:				
l:		wish to be h	eard in support of my submission				
(please tick one)		do not wish (Please tick or	to be heard in support of my submission <i>e)</i>				
Ву:		appearing pe	ersonally				
(please tick one)		being repres (Please tick or	ented by the following person (e)				
Signature:							
Date:							

Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide, SA 5001 /or

Email: scapreps@sa.gov.au



Development Application Form

Applicant:	City of Mount Gambier						
Postal Address:	P O Box 56						
Email:	city@mountgambier.sa.gov.au						
Contact Person:	Andrew Meddle						
Contact Number:	0887212555	Mobile	Number:				
Are you lodging as Owner/Builder? Yes/No Builder: To be Confirmed Postal Address: Email: Are the Owner / Applicant details the same? Yes/No Owner: Postal Address: Email:							
License Number:				er:			
REQUEST ASSESS	MENT FOR:		Annah te la de	10.19			
	oproval (Planning & Building Cons Consent (Building Only)	ent)	_	nent Plan Consent (Plann evelopment Approval	ing Only)		
PROPOSED DEVEL	OPMENT:						
	^{6 & 18} Lot No Str			ce			
Proposed Developme	ent: To construct a community	recreat	ion centre				
Existing Use of Prope	erty: Recreational reserve and a	associa	ted recreational	facilities			
Cost of Development	\$ <u>40,000,000</u>		(Do not include f	t out costs)			
CITB receipt provided	d (Required for all development over \$40	,000)	NC				
Does the Developme	nt require a new/additional Invert	or Cros	ssover? YE	S			
MATERIALS TO BE	USED:						
Floor:	Roof:		Wall:	Frame:			
Floor area of propose	Floor area of proposed structure:m² Floor area of existing structure:m²						
WASTE WATER SY	STEM			19 F. A. S.			
	ve a SA Water mains sewer conn wastewater disposal system is required)	ection?		YES]		
Is there an existing on-site wastewater disposal system on the property? (e.g Septic) [NO] [NO]							
lf No, has an applicat	No, has an application for an on-site wastewater system been lodged with Council?						
	acknowledge that copies of this application and supporting documentation may be provided to interested persons in accordance with the Development Regulations 2008.						
Z	\$0700 A D			11/-/	1,0		



Title Register Search LANDS TITLES OFFICE, ADELAIDE

For a Certificate of Title issued pursuant to the Real Property Act 1886

REGISTER SEARCH OF CERTIFICATE OF TITLE * VOLUME 5874 FOLIO 335

COST : \$18.00 (GST exempt) PARENT TITLE : CT 1369/191

REGION : EMAIL AUTHORITY : CONVERTED TITLE

AGENT : LGE3P BOX NO : 000 DATE OF ISSUE : 21/06/2002

SEARCHED ON: 30/09/2009 AT: 12:43:45 EDITION: 1

CLIENT REF OLYMPIC PARK

REGISTERED PROPRIETOR IN FEE SIMPLE

CITY OF MOUNT GAMBIER OF PO BOX 56 MOUNT GAMBIER SA 5290

DESCRIPTION OF LAND

ALLOTMENTS 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34 AND 35 DEPOSITED

PLAN 2150

IN THE AREA NAMED MOUNT GAMBIER

HUNDRED OF BLANCHE

EASEMENTS

NIL

SCHEDULE OF ENDORSEMENTS

NIL

NOTATIONS

DOCUMENTS AFFECTING THIS TITLE

NIL

REGISTRAR-GENERAL'S NOTES

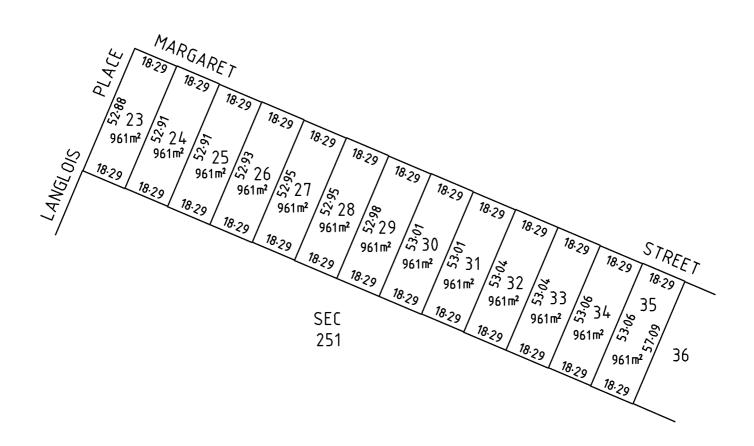
CONVERTED TITLE-WITH NEXT DEALING LODGE CT 1369/191

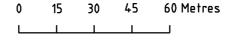
END OF TEXT.



LANDS TITLES OFFICE ADELAIDE SOUTH AUSTRALIA DIAGRAM FOR CERTIFICATE OF TITLE VOLUME 5874 FOLIO 335







Page 2 of 2

SEARCH OF CROWN RECORD

* VOLUME 5637 FOLIO 191 *

COST : \$18.00 (GST exempt) NO PARENT TITLE

REGION: EMAIL AUTHORITY: RT 8648541
AGENT: LGE3P BOX NO: 000 DATE OF ISSUE: 22/03/1999

SEARCHED ON: 30/09/2009 AT: 13:00:57 REGISTRATION: 1

CLIENT REF OLYMPIC PARK

OWNER

THE CROWN

CUSTODIAN

CITY OF MOUNT GAMBIER OF PO BOX 56 MOUNT GAMBIER SA 5290

DESCRIPTION OF LAND

SECTION 251

HUNDRED OF BLANCHE

IN THE AREA NAMED MOUNT GAMBIER

TOTAL AREA: 5.059 HECTARES CALCULATED

DIAGRAM BOOK PAGE: 129

EASEMENTS

SUBJECT TO THE EASEMENT AS DESCRIBED IN GG 24/4/1985 PAGE 1313 TO THE MINISTER FOR INFRASTRUCTURE

SCHEDULE OF INTERESTS

LAND DEDICATED FOR RECREATION PURPOSES PURSUANT TO THE CROWN LANDS ACT, $1929\ \text{BY}$ GAZETTE 24.4.1985

NOTATIONS

DOCUMENTS AFFECTING THIS TITLE

NIL

REGISTRAR-GENERAL'S NOTES

NIL

CONT.

SEARCH OF CROWN RECORD * VOLUME 5637 FOLIO 191 *

NO PARENT TITLE

REGION: EMAIL AUTHORITY: RT 8648541
AGENT: LGE3P BOX NO: 000 DATE OF ISSUE: 22/03/1999

SEARCHED ON: 30/09/2009 AT: 13:00:57 REGISTRATION: 1

ADMINISTRATIVE INTERESTS AND CROWN NOTES

AUTHORITY DOCKET D.L. 2721/84

PLANNING COMM CONDITION SEE DEPT OF E & P 381/0126/90 PLANNING COMM CONDITION SEE DEPT OF E & P 381/0258/94 PROPOSED LAND DIVISION SEE DEPT OF E & P 381/D027/99 PROPOSED LAND DIVISION SEE DEPT OF E & P 381/D014/95 PROPOSED LAND DIVISION SEE DEPT OF E & P 381/D016/87 PROPOSED LAND DIVISION SEE DEPT OF E & P 381/D023/00 PROPOSED LAND DIVISION SEE DEPT OF E & P 381/D028/09

END OF TEXT.

DEVELOPMENT REGULATIONS 2008 Form of Declaration (Schedule 5 clause 2A)



To: State Commission Assessment Panel
From: City of Moune Gambier
Date of Application: 25111 1 2019 + 10,12,14, 16 \$ 18 0' Halloran Terrace
Location of Proposed Development: 5 B Maranet Object Mount Combies
House No: 58 Lot No: 23-35 Street: O'Halloran Terrace and Margaret Street
Town/Suburb: Maint Gambier
Section No (full/part): <u>151</u> Hundred: <u>Blanshe</u>
Volume: <u>5637</u> Folio: <u>191</u> 5874 335
Nature of Proposed Development: To construct a community recreation centre
I <u>Hndrew Medalle</u> being the ap plicant/ a person acting
on behalf of the applicant (delete the inapplicable statement) for the development
described above declare that the proposed development will involve the construction of a building which would, if constructed in accordance with the plans submitted, not
be contrary to the regulations prescribed for the purposes of section 86 of the
Electricity Act 1996. I make this declaration under clause 2A(1) of Schedule 5 of the Development Regulations 2008.
Signed: Date: 17/12/19
2400

Mount Gambier Sports and Recreation Centre

Margaret Street, Mount Gambier Transport Impact Assessment

Prepared by: GTA Consultants (SA) Pty Ltd for DesignInc

on 29/08/19

Reference: S153700

Issue #: A



Mount Gambier Sports and Recreation Centre

Margaret Street, Mount Gambier Transport Impact Assessment

Client: DesignInc

on 29/08/19

Reference: S153700

Issue #: A

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A-Dr	29/08/2019	Draft	Greg Pollard	Paul Froggatt	Paul Froggatt	
Α	29/09/2019	Final	Greg Pollard	Paul Froggatt	Paul Froggatt	Paul Crogget



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Traffic Impact Assessment

1. INTRODUCTION





1.1. Background

A Development application is currently being sought for a proposed community Sports and Recreation Centre development on the site of the existing Mount Gambier Aquatic Centre and Olympic Park Netball Courts. The proposed development incorporates a two-storey building with 6 indoor basketball courts, an eight lane indoor pool, a play area pool, additional parking, fitness/meeting room facilities along with retaining existing outdoor netball/tennis courts and the existing outdoor pool.

GTA Consultants was engaged by the DesignInc on behalf of the City of Mount Gambier (Council) to undertake a transport impact assessment of the proposed development.

1.2. Purpose of this Report

This report sets out an assessment of the anticipated transport implications of the proposed development, including consideration of the following:

- 1. Existing traffic and parking conditions surrounding the site
- 2. Parking demand likely to be generated by the proposed development
- 3. Suitability of the proposed parking in terms of supply (quantum) and layout
- 4. Traffic generation characteristics of the proposed development
- 5. Proposed access arrangements for the site
- 6. Transport impact of the development proposal on the surrounding road network.

1.3. References

In preparing this report, reference has been made to the following:

- Mount Gambier (City) Development Plan (Consolidated 21 April 2016)
- Australian Standard/ New Zealand Standard, Parking Facilities, Part 1: Off-Street Car Parking AS/NZS 2890.1:2004
- Australian Standard, Parking Facilities, Part 2: Off-Street Commercial Vehicle Facilities AS 2890.2:2002
- Australian Standard / New Zealand Standard, Parking Facilities, Part 6: Off-Street Parking for People with Disabilities AS/NZS 2890.6:2009
- Plans for the proposed development prepared by DesignInc
- Traffic surveys provided by Council as referenced in the context of this report
- Various technical data as referenced in this report
- An inspection of the site and its surrounds
- Other documents as nominated.



2. EXISTING CONDITIONS





2.1. Subject Site

The subject site is located between Margaret Street and O'Halloran Terrace in Mount Gambier. The site of approximately 59,200m² has frontages of 250m to Margaret Street and 250m to O'Halloran Terrace.

The site is located within a Recreation Zone and is currently occupied by an existing sports precinct.

The sports precinct currently comprises:

- an existing outdoor swimming pool with 8 lanes;
- 2 play pools,
- 12 netball courts; and
- 9 tennis courts.

The surrounding properties include a mix of residential and commercial land uses. There is also a primary school and police station adjacent the site. The City Centre is within proximity to the site with walking connections through Mount Gambier Railways Lands.

The location of the subject site and the surrounding environs is shown in Figure 2.1.

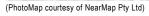
Mount Gambier
Railway Lands

Mangaret Street

Subject Site

Police Station of Station of Station of Halloran Terrace

Figure 2.1: Subject Site and its Environs





2.2. Road Network

2.2.1. Adjoining Roads

The streets which surround the existing sports precinct are detailed below: Margaret Street

Margaret Street is a local road managed and maintained by the Council. The roadway is aligned in an east-west direction and is configured with a travel lane in each direction. Margaret Street is approximately 12 metres wide and set within an 18 metre wide road reserve (approx). There is shared bicycle and parallel parking lanes on both sides of Margaret Street, with parking un-restricted. There is one existing access point to the subject site from Margaret Street which is shown in Figure 2.2.

Margaret Street has a default urban speed limit of 50km/h.

Figure 2.2: Existing Margaret Street entry point east facing (Two-way entry/exit movement)



O'Halloran Terrace

O'Halloran Terrace is a local road managed and maintained by the Council. The roadway is aligned in a north-east to south-west direction and is configured with a travel lane in each direction. O'Halloran Terrace is approximately 12m wide and set within an 18m wide road reserve (approx). There is unmarked unrestricted parallel parking on both sides of O'Halloran Terrace. Two existing access points to the subject site join O'Halloran Terrace which are shown in Figure 2.3. One access point will be removed as part of the proposed development. O'Halloran Terrace has a default urban speed limit of 50km/h. There is also a koala crossing approximately 115m west from the south-west corner of the subject site on O'Halloran Terrace.



Figure 2.3: Existing O'Halloran Terrace entry point



Bay Road (Riddoch Highway)

Bay Road is an arterial road managed and maintained by Department of Planning, Transport and Infrastructure (DPTI). The roadway is aligned in a north-south direction and is configured with a travel lane in each direction. Bay Road is approximately 13.2m wide and set within an 20m wide road reserve (approx). There is marked unrestricted parallel parking on both sides of Bay Road. Bay Road has a default urban speed limit of 50km/h. Both Margaret Street and O'Halloran Terrace join Bay road at two separate unsignalized T- Junctions as shown in Figure 2.4 and Figure 2.5

Figure 2.4: O'Halloran Terrace/Bay Road looking north





Figure 2.5: Margaret Street/Bay Road looking south



2.2.2. Traffic Volumes

Average weekday two-way vehicle volumes were collected by Council between 7th-21st of November 2016 for Margaret Street and 12th – 21st of December 2018 for O'Halloran Terrace. Estimated daily traffic volumes for Bay Road were obtained by Location SA from 2017 base year. The following traffic volumes are shown below:

Table 2.1: Vehicle volumes on adjoining roads

Road	AM Peak Volumes	PM Peak Volumes	Daily Volumes
O'Halloran Terrace	133	99	984
Margaret Street	263	356	2,856
Bay Road	N/A	N/A	13,700

2.2.3. Crash Statistics

A review of the reported crash history for the roads and intersections adjoining the subject site has been sourced from DPTI through Location SA. Figure 2.6 shows locations of crashes around the subject site on adjoining roads. A summary of the accidents for a five year period between 2013 and 2017 is shown in Table 2.2.





Figure 2.6: Crash statistics from 2013-2017 (5 years)

Table 2.2: Crash History

Location	Crash Type	No. of crashes
O'Halloran Terrace (Near police Station)	Hit fixed object	1
O'Halloran Terrace/Bay Road	Rear End	1
Margaret Street Near Bay Road side	Hit Parked Vehicle	1
Margaret Street/Wehl Street	Right Angle	2
Total		5

Source: VicRoads

Based on the above, there have been no accidents within the immediate vicinity of the site, with a very low crash history in the surrounding road network.

2.3. Car Parking

2.3.1. Supply

The site has a current parking provision of 240 off-street car parking spaces within the site. 43 parking spaces are in the southern car parking located near the sink hole and 35 parking spaces near the police station. The remaining 162 parking spaces are in the northern car park in the subject site. Site observations were conducted by GTA on Thursday 18th of July 2019 at 9:50am showing approximately 10% of the northern car park occupied with parking and both southern car parks empty. On-street parking available on Margaret Street, O'Halloran Terrace and other surrounding streets had minimal parking occupancy at the time of the site observations.



Timing of observations would not have been at a peak parking time during the day however, with abundant supply of nearby on-street parking, GTA assumes nearby streets would accommodate additional parking demand.

2.4. Sustainable Transport Infrastructure

2.4.1. Public Transport

The Mount Gambier Bus Service is a five day per week operation (Monday to Friday) offering three different "loops" traversing various sectors of the City (i.e. North East, North West and South East Loops).

Each "loop" commences and terminates in Ferrers Street at the bus stop opposite Target, on the hour from 9.00am to approximately 5.15pm, with services approximately hourly.

Figure 2.7 shows the subject site in relation to existing bus routes within its vicinity.

DISSON CONTROL OF THE PROPERTY OF THE PROPERTY

Figure 2.7: Public Transport Map

2.4.2. Pedestrian Infrastructure

There are footpaths located on both sides of Margaret Street and O'Halloran Terrace.

There are pedestrian refuge crossings located at O'Halloran Terrace/Wallace Terrace and O'Halloran Terrace/Power Street T-Junctions.



There is a pedestrian link from O'Halloran Terrace to the netball courts, which also provides an internal link to the existing swimming pool and Margaret Street.

A pedestrian route is provided through the Mount Gambier Railway Lands connecting the site to the town centre, although the connections across Margaret Street are incomplete.

2.4.3. Cycle Infrastructure

There is currently shared parking/bicycle painted lanes located on Margaret Street. A shared pedestrian/bicycle path is located within proximity to the subject site through the Mount Gambier Railway Lands as shown in Figure 2.8.

Figure 2.8: Cycling infrastructure around subject site





3. DEVELOPMENT PROPOSAL





3.1. Land Uses

The proposal includes the construction of a two storey Recreation and Sports Hub building comprising of six indoor basketball courts, an eight lane swimming pool, play space pool area, fitness gym, two playgrounds and additional parking area whilst retaining outdoor tennis and netball courts, as summarised in Table 3.1.

Table 3.1: Development Schedule [1]

Use	Size/Quantity	Existing	Proposed	Change
Outdoor Netball Courts	12 courts	12	9	-3 courts
Indoor Basketball/Netball Courts	6 courts	0	6	+ 6 courts
Outdoor Swimming Pool	8 lanes	1	1	Unchanged
Indoor Swimming Pool	8 lanes	0	1	+ 8 lanes
Gym	270 sq.m	0	1	+270sqm
Existing Tennis Courts	9 courts	9	9	Unchanged
Playgrounds	2 sites	1	2	+ 1 Playground
Creche	85sqm	0	1	+85sqm
Sports Offices	2 rooms	0	2	+ 2 Rooms
Sport Allied Health Tenancy	4 Rooms	0	4	+ 4 Rooms
Function Rooms	TBC	0	2	+ 2 Rooms
Exercise Room	TBC	0	1	+ 1 Room

The site is also complimented with ancillary facilities including a main entry foyer, reception, meeting rooms and management offices.

3.2. Car Parking

269 spaces have been provided within the site. This represents a net increase of 29 spaces. 200 spaces will be provided at the northern part of the subject site that joins to Margaret Street and 69 spaces will be provided at the southern part of the subject site that joins to O'Halloran Terrace. The two car parks are not connected internally.

3.3. Vehicle Access

The existing car parking access points will be maintained in their location but modified to facilitate the proposed design vehicle. A new access road has been provided from O'Halloran Terrace.

3.4. Bicycle Facilities

The provision of bicycle parking spaces is to be made within the site, with the location, format and number to be identified as part of the design development stage.

3.5. Pedestrian Facilities

Pedestrian access will be provided between Margaret Street and the main building foyer, providing good connections between the street and the site. Within the car park, a designated walkway has been proposed with a crossing, which would link the car park to the main plaza.



3.6. Loading Areas

Loading would occur with access via primarily via O'Halloran Terrace. Vehicles up to MRV would be able to access the site as a general access vehicle using the existing western car park access road and the proposed new service road along the eastern side of the site. On rare occasions for specific events, vehicles up to HRV and 19 metre Semi Trailers would require access from O'Halloran Terrace, which would be undertaken under on-site traffic management conditions. Small delivery vans can also use the access, car park and drop-off area from Margaret Street.



4. CAR PARKING





4.1. Development Plan Parking Requirements

Whilst the Mount Gambier (City) Development Plan (Consolidated 21 April 2016) outlines parking rates identified in Table Cam/1 of the document, it does not state parking requirements for a sports centre. The only component of the development that is identified within the Development Plan document is tennis courts. The Development Plan requires 3 parking spaces per tennis court that are existing and will remain as part of this development

4.2. Empirical Assessment of Parking Demand

4.2.1. Background

To assess the likely parking demand associated with the new components of the Sports and Recreation Centre, GTA Consultants has undertaken an empirical assessment of car parking demand utilising a variety of typically accepted analysis methods, as follows:

- Car parking demand surveys of similar uses
- Standard empirical car parking data sources
- Traffic engineering first principles.

Generally, the assessment has assumed that evening demand would be associated with sports training and that weekends would be associated with sports competition. Learn to swim pools would typically operate in both periods with higher demand at weekends.

4.2.2. Basketball Courts

Umpires/officials per Court:

In order to determine the likely car parking demand for the additional basketball courts, GTA Consultants anticipates the following demand patterns per court:

2

Players per Court:14

• Coaches per Court: 2

Spectators per Court:
 Ancillary.

To allow for car share, drop-off and non-car access, the total parking demand is assumed to be 80% of the person demand. This provides an estimate of 14 parking spaces per court.

4.2.3. Gym

In order to determine the likely car parking demand for the new gym use, guidance on the parking generating characteristics for the use has been sourced from:

- RTANSW parking data
- Planning SA parking data.

RTANSW

The nominated RTANSW reference represents the most comprehensive traffic and parking generation data set compiled in Australia to date. This document nominates a minimum and desirable peak design parking rate of 4.5 and 7.5 car spaces per 100sq.m for a gymnasium use, respectively.

Planning SA



The nominated Planning SA document provides a variety of parking rates for land uses within South Australia. This document nominates a peak design parking rate of 12 spaces per 100sq.m for a gymnasium use.

Given that the Gym is not proposed to operate as a dedicated gymnasium and therefore generate the high parking demands anticipated by the Planning SA guide, an average of the Planning SA and high and low RTA rates above has been adopted for the proposed development.

Application of the above rate (eight (8) spaces per 100sq.m) to the proposed floor area of 355sq.m anticipates a peak parking demand in the order of 29 car spaces.

4.2.4. Allied Health Rooms

GTA consultants understands that 4 Allied Health rooms are to be used for sport related health tenancy. It is anticipated that these rooms will primarily be used for physio, massage and other therapies and treatments for players attending the sports precinct as well as for the general public use. Parking required for the rooms will therefore be required for staff and occasional external public use but will otherwise be ancillary related to the sports functions.

4.2.5. Function Rooms/Clubrooms

GTA Consultants understands that the proposed function rooms will be available to the public for seminars, community groups and small educational classes during the weekday daytime and some evenings whilst its function will be ancillary to the main sporting events for post-training/game functions on Friday and weekend peak times.

Further it has been conservatively assumed that the Function Rooms have the potential to accommodate dance studios.

Guidance on the parking generating characteristics for the use has been sourced from car parking surveys undertaken of typical function centres as compiled by various traffic consultants. The parking survey results collated for the function rooms suggest an average peak parking demand in the order of 0.36 spaces per seat.

Application of the above rate to the proposed floor area of 325 sq.m (or 80 people) anticipates a peak parking demand in the order of 29 car spaces. However, this peak would be expected to occur during weekday daytimes and evenings and not during the Friday evening and weekend sporting peak periods, where the use will largely be ancillary.

4.2.6. Swimming Pool

It is anticipated that use of the indoor swimming pool for learn to swim classes will provide the most intensive use of the pool in terms of parking demand. This is anticipated to be provided by State Swim or a similar provider.

Advice provided to GTA Consultants by State Swim indicates that the peak parking period state-wide generally occurs on a Saturday morning during child swim classes with the following theoretical peak patron numbers being representative of this period:

Instructors per Lane:2

• Children per Lane: 8

Other staff (at any one time): 3

GTA Consultants has previously undertaken car parking demand surveys at existing State Swim Centres at Unley and Seaford during a typical Saturday (8.00am – 10.00am) peak period.

The survey results suggested an average peak parking demand in the order of 9.6 spaces per lane.

Application of the above rate (9.6 spaces per lane) to the proposed development of an eight (8) lane swimming pool anticipates a peak parking demand in the order of 77 spaces during peak times.



4.2.7. Ancillary Staff

In order to determine the likely car parking generated by the ancillary services provided within the proposed centre, it is anticipated that the following staff would be on site based on the development proposal:

Reception
Café and Kitchen Staff
Sports Hall Staff
Creche
Community Coordinator
2

4.3. Shared Car Parking Assessment

A shared assessment of car parking demand has been undertaken for the proposed development.

Based upon the information on individual uses detailed above, the peak car parking periods for assessment are as follows:

- Friday PM peak period between 5.00pm and 9.00pm
- Saturday AM peak period between 7.00am and 11.00am.

For the peak periods identified above, GTA Consultants has utilised traffic engineering first principles and relevant survey information to determine an approximate 'percentage occupancy profile' at half-hour intervals for each use, i.e. the parking demand for each use at any one time as a percentage of the maximum.

The results of this assessment indicated car parking peaks between 6.00pm and 7.00pm on a Friday evening and 11.00am to 12.00pm on a Saturday morning respectively, as outlined in Table 4.1.

Table 4.1: Shared Parking Demand - Post Development Conditions

Use	Percentage Occupancy Profile		Friday PM Peak @ 6.30pm	Saturday AM Peak
056	Friday PM	Saturday AM	Filluay Fili Feak @ 0.30pili	@ 11.30am
Basketball Courts	80%	80%	24 spaces	24 spaces
Consulting Rooms	50%	100%	2 spaces	4 spaces
Gym	100%	25%	29 spaces	8 spaces
Function Rooms/Clubrooms [1]	50%	0%	14 spaces	0 spaces
Swimming Pool	25%	100%	20 spaces	77 spaces
Ancillary	50%	100%	5 spaces	10 spaces
TC	TAL		119 spaces	123 spaces

^[1] Function Room activity will peak throughout the day, whilst Clubroom activity in the evening and weekend is considered primarily ancillary.

Table 4.2 above indicates that the proposed development would be anticipated to generate an additional car parking demand of 119 and 123 spaces during the Friday PM and Saturday AM peak periods, respectively. It is anticipated that these figures will fluctuate throughout the year based on sporting seasons and weather conditions in relation to use of the outdoor swimming pool and outdoor courts.



4.4. Adequacy of Parking Supply

Based on the above, the anticipated parking generated from new components to the sports precinct will be within the anticipated parking demand generated by the site. An additional 29 car parking spaces are to be constructed on site as part of the development. It is believed not all facilities will be operating at full capacity at the same time due to seasons of the year and timing of the day and this can allow for sharing of parking. If, however demand is overcapacity at peak times, there is considerable parking supply on-street on Margaret Street and O'Halloran Terrace. In the case of large concert events, there is also ample amount of parking in the town centre that is within walking distance the subject site.

4.5. Event Parking Demand

The proposed development is expected to showcase performances/expos/major events from time to time and it is understood that this could have an expected maximum capacity of up to 2,500 patrons. This could include end of season basketball finals using a single show court, music concerts or theatre shows. It is anticipated that events will occur throughout the year from time to time and parking demand will exceed the available parking spaces. Due to the nature of the events, it is anticipated that car occupancy would be relatively high at an average of 3 occupants per vehicle and therefore full capacity events could be expected to generate parking demand for around 800 vehicles.

It is expected that overflow parking will spill into the adjoining streets and the city centre due to its proximity. Due to the expected low number of times this will occur throughout a year, it is not expected that additional parking would be require on site for these circumstances.

4.6. Car Parking Layout

The proposed parking layout is consistent with the dimensional requirements as set out in the Australian/New Zealand Standards for Off Street Car Parking (AS/NZS2890.1:2004 and AS/NZS2890.6:2009).



5. SUSTAINABLE TRANSPORT INFRASTRUCTURE





5.1. Bicycle End of Trip Facilities

Based on the Mount Gambier (City) Development, 53 bicycle spaces are required. However, this rate is considered high given the nature of the development and the likely demand.

GTA recommends the installation of 10 bicycle loops (providing 20 Spaces) which is anticipated to more than facilitate bicycle parking demands. The bicycle racks should be covered and provided in a location with good passive surveillance near the main entrance.

However, space to accommodate additional bicycle parking should be identified should demand increase.

5.2. Walking and Cycling Network

The location of the subject site has potential of people walking to and from the town centre as they are within proximity to each other as shown in Figure 5.1. A pedestrian link connects the town centre through the Mount Gambier Railway Lands to the subject site. However, a kerb ramp is missing on the subject site side of Margaret Street as shown in Figure 5.2. There is also no signage/line-marking to stop parked vehicles from obstructing the pedestrian ramp. It is recommended to construct a kerb ramp on the southern side of Margaret Street and install no standing signage or yellow line marking adjacent to both kerb ramps. It is further recommended to monitor this location post development and investigate whether there is a need to provide pedestrian crossing safety treatments or a formal pedestrian crossing.

Figure 5.1: Walking/Cycling link from Town Centre to subject site

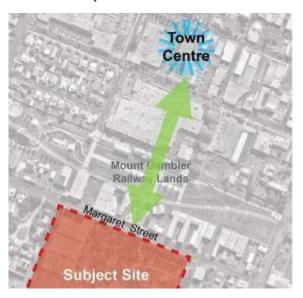


Figure 5.2: Margaret Street missing kerb ramp on subject site side



5.3. Public Transport

As discussed, there is a Mount Gambier bus loop, with the site located 500metres from the nearest southern bus loop stop.



6. LOADING FACILITIES

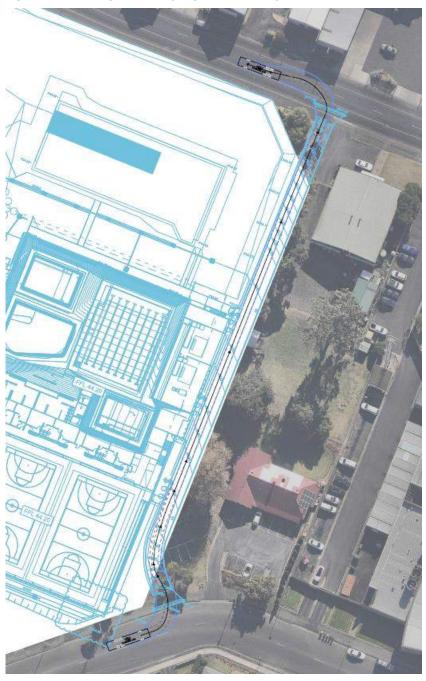




6.1. Deliveries

Deliveries will typically be conducted by vehicles up to a Medium Rigid Vehicle (MRV) in size, with trucks entering and exiting via the new services yard from O'Halloran Terrace along the eastern side of the site precinct. Swimming pool deliveries will also be undertaken via this route which is proposed as a cul-de-sac and will be designed to enable access for trucks up to a 12.5 metre Heavy Rigid Vehicle (HRV). The entry and exit turn paths are shown in Figure 6.1. Deliveries will typically take place outside of peak hours to minimise the traffic impact.

Figure 6.1: Loading Area Heavy Rigid Vehicle Entry





For major events, occasional use of the site will be required by HRVs and Semi-trailers through the southern car park under managed conditions. Although the HRV will not directly impact on the parking areas, the semi-trailer will require temporary closure of some parking spaces. The exit routes for both vehicles will also require minor kerb flaring changes to the proposed layout.

Figure 6.3 and Figure 6.4 show the HRV entry and exit routes respectively, noting that the access road can also continue to be used by light vehicles.

Figure 6.2: Heavy Rigid Vehicle Entry

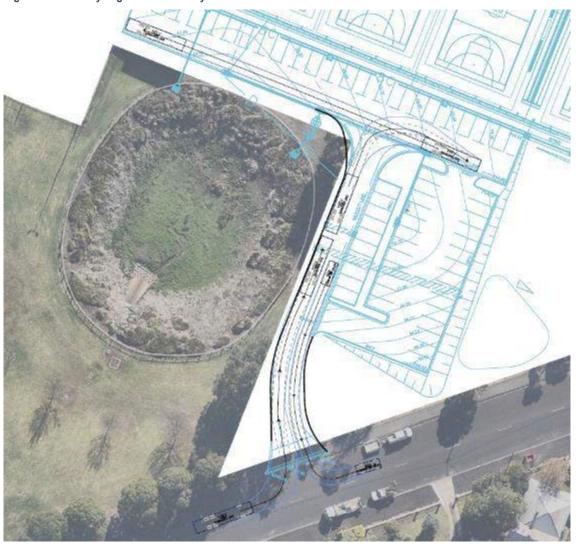




Figure 6.3: Heavy Rigid Vehicle Exit



The semi-trailer would however need to utilise the full width of the O'Halloran Terrace crossover as well as requiring up to 12 spaces to manoeuvre internally. For the major events when semi-trailer use is anticipated, this access is expected to occur early in the morning such that it would not impact on day to day operations. These spaces would have temporary bollards installed prior to the truck arrival to ensure this space is available.

Figure 6.5 and Figure 6.6 show the semi-trailer access and exit paths, identifying the temporary parking restrictions and minor kerb adjustments required.



Figure 6.4: 19m Semi Trailer Entry





Figure 6.5: 19m Semi Trailer Exit



6.2. Refuse Collection

Refuse collection will be conducted by vehicles equivalent in size to an 8.8 metre long Medium Rigid Vehicle (MRV), with vehicles entering and exiting via the O'Halloran Terrace service access point. As the site will accommodate HRV access, refuse vehicles will comfortably be able to access and manoeuvre within the site.

6.3. Bus Access

Buses will enter and exit via Margaret Street, with a drop off and pick up area proposed within the car park. The circulation route is shown for a 12.5 metre bus in Figure 6.7.



Figure 6.6: 12.5 metre Bus Circulation





7. TRAFFIC IMPACT ASSESSMENT





7.1. Traffic Generation

7.1.1. Design Rates

Traffic generation rates for the proposed new components within the development have been sourced from previous GTA surveys related to other sports and leisure centre uses. Table 7.1 summarises the rates for each of the uses and the assumptions on utilisation in each of the Friday and Saturday peak hours. For all uses staff are assumed to be either included within the traffic generation rate or already on-site before and after the peak traffic generation periods.

Figure 7.1: Traffic Generation

Use	Rate	Utilisation		Traffic Generation		
		Friday	Saturday	Friday	Saturday	
Basketball	18 per court	80%	80%	29	29	
Allied Heath rooms	0.5 per room ¹	50%	100%	1	2	
Gym	9 per 100sqm	100%	25%	32	8	
Function Rooms	0.09 per seat	50%	0%2	4	4	
Swimming Pool	nming Pool 6.1 per lane ³		100%	12	49	
Total				78	88	

Notes:

- 1 Allied health rooms rate only includes non-ancillary visitors
- 2 Function Rooms assumed to be 100% ancillary to other uses on Saturday
- 3 Splash pool will be linked to swimming pool trips, and not considered as a separate trip.

7.2. Traffic Impact

Based on the above, the site would be anticipated to generate an additional 78 trips during the Friday evening peak hour and 88 trips during the Saturday morning peak hour. These trips are expected to be split across the two access points in proportion to the existing traffic volumes using the adjoining streets as this will provide an indication of current access routes to the centre as well as the wider town centre. Distribution of the traffic east and west along Margaret Street and O'Halloran Terrace is then anticipated to be similar to the existing directional traffic flows along the two roads.

On the above basis, Figure 7.2 and Figure 7.3 have been prepared to show the likely additional traffic at the two site accesses, along Margaret Street and O'Halloran Terrace and approaching the intersections with Bay Road.



Reidy Park
Primary School

OHalloran Terrace

8

Mount Gambier
Railway Lands

City
Centre

20

Subject Site

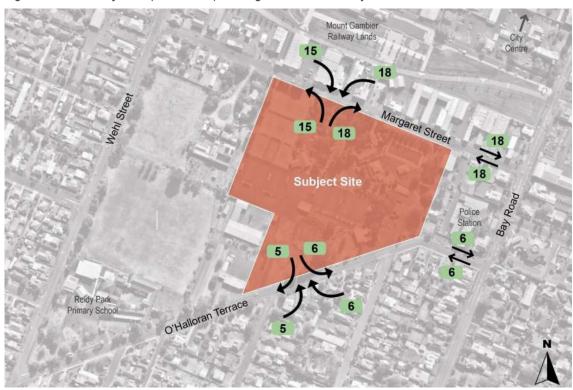
Police
Slation
3

Reidy Park
Primary School

OHalloran Terrace
6

Figure 7.2: Friday Peak (6pm-7pm) traffic generation from subject site





Based on the existing traffic volumes, the above traffic generation and distribution is not considered to adversely impact the surrounding road network.



8. CONCLUSION





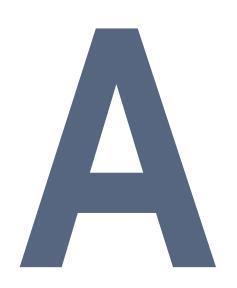
CONCLUSION

Based on the analysis and discussions presented within this report, the following conclusions are made:

- 1. The proposed development will replace the existing sports centre, providing additional indoor sports hall, swimming and ancillary uses.
- 2. The new components of the development are estimated to generate a parking demand of 119 spaces on a Friday evening peak and 123 spaces on a Saturday peak based on empirical or first principles parking rates.
- 3. The proposed supply of 269 spaces is considered sufficient to meet the overall demand for the existing and proposed facilities given the likely seasonal variation in the use of the swimming pools and other sports facilities.
- 4. The proposed larger sporting and other events will require use of existing on-street and town centre parking capacity but are expected to be infrequent in nature. Improved pedestrian connections will be required across Margaret Street to accommodate access to such events.
- 5. The proposed parking layout is consistent with the dimensional requirements as set out in the Australian/New Zealand Standards for Off Street Car Parking (AS/NZS2890.1:2004 and AS/NZS2890.6:2009).
- 6. Provision for bicycle facilities will be included within the site and an initial supply of 10 covered bicycle racks in a location with good passive surveillance near the main entrance is recommended. This will provide 20 bicycle parking spaces.
- 7. The regular loading and deliveries will be accommodated via a specific service road along the eastern side of the precinct, enabling access for vehicles up to Heavy Rigid Vehicles for swimming pool servicing, refuse collection and general deliveries.
- 8. The site is expected to generate up to 78 and 88 additional vehicle movements in the Friday evening and Saturday morning peak hours respectively.
- 9. There is adequate capacity in the surrounding road network to cater for the anticipated additional traffic generated by the proposed development



A. TRAFFIC COUNT DATA





OHalloran Terrace virtual week report (WEST DIRECTION ONLY).txt

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-48 -- English (ENA)

Datasets:

Site: [O'Halloran Terrace] 100m West of Wallace St

Attribute:

Direction: 8 - East bound A>B, West bound B>A. Lane: 0

Survey Duration: 14:45 Wednesday, 12 December 2018 => 16:05 Monday, 14

January 2019,

Zone:

File: O'Halloran Terrace 0 2019-01-14 1606.EC0 (Plus) Identifier: ND2876ZR MC5900-X11 (c)MetroCount 15Aug16

Algorithm: Factory default axle (v5.02)

Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 14:46 Wednesday, 12 December 2018 => 17:00 Friday, 21 December

2018 (9.09306)

Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

Speed range: 10 - 160 km/h.

Direction: West (bound), P = East, Lane = 0-16 Separation: Headway > 0 sec, Span 0 - 100 metre

Name: Default Profile

Scheme: Vehicle classification (AustRoads94)

Units: Metric (metre, kilometre, m/s, km/h, kg, tonne)

In profile: Vehicles = 4110 / 26738 (15.37%)

lack

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-48

Site: O'Halloran Terrace.0.1EW

Description: 100m West of Wallace St

Filter time: 14:46 Wednesday, 12 December 2018 => 17:00 Friday, 21 December

2018

Scheme: Vehicle classification (AustRoads94)

Filter: Cls(1-12) Dir(W) Sp(10,160) Headway(>0) Span(0 - 100) Lane(0-16)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Averages							4
5 1 - 7							1 -
Hour							1
0000 0100	2.0	1.0	1.0	1.0	4 5	2.0	2.0.1
0000-0100 1.3 1.6	2.0	1.0	1.0	1.0	1.5	3.0	2.0
0100-0200	1.0	1.0	1.0	0.5	1.0	0.0	3.0
0.9 1.0							

0Hall	oran Te	errace virt	tual week	renort	(WEST DIRE	CTTON ONL	V) +y+
9200-0300	0.0	2.0	1.0	0.0	1.0	3.0	0.0
	0.0	2.0	1.0	0.0	1.0	5.0	0.0
	0 0	1.0	2.0	0.0	2.0	1.0	4.0.1
300-0400	0.0	1.0	2.0	0.0	2.0	1.0	1.0
1.0							
9400-0500	1.0	1.0	3.0	0.5	1.0	2.0	2.0
1.1							
9500-0600	4.0	4.0	6.0	3.0	6.5	0.0	0.0
1.7 3.7			0.0	3.0	0.5	0.0	0.0
	<i>c</i> 0	0.0	7.0	о г	10.0	2.0	ا م م ا
0600-0700	6.0	9.0	7.0	8.5	10.0	3.0	0.0
6.9							
700-0800	20.0	23.0	30.0	26.5	25.0	12.0	7.0
25.1 21.7							
800-0900	40.0	43.0	31.0	72.5	69.5	27.0	11.0
6.9 48.4							
		21 0	20.0	ງວ ດ	24 E	20.0	12 A I
9900-1000	25.0	21.0	20.0	23.0	24.5	29.0	13.0
3.0 22.6		<u> </u>				<u>.</u>	
.000-1100	38.0	23.0	32.0	23.5	34.0	14.0	25.0
9.7 27.4							
.100-1200	39.0	21.0	36.0	47.0	29.0	26.0	26.0
5.4 33.3						-	- / - 1
200-1300	35.0	33.0	40.0	35.0	35.0	27.0	15.0
		33.0	40.0	33.0	33.0	27.0	13.0
5.4 32.2							
.300-1400	45.0	39.0	32.0	33.5	51.0	32.0	15.0
0.7 36.9							
.400-1500	23.0	19.0	14.0	31.0	55.0	26.0	18.0
30.3 28.6							•
.500-1600		21.0	57.0	52.0	36.0	17.0	26 A I
	31.0	21.0	37.0	32.0	30.0	17.0	26.0
12.8 38.5							
.600-1700	38.0	38.0	34.0	33.5	39.0	33.0	24.0
6.1 34.6							
.700-1800	30.0	37.0	40.0	32.5	47.0	17.0	22.0
37.0 33.1							
	16.0	10 A	44.0	27 0	25 0	24.0	10 A I
.800-1900		18.0	44.0	27.0	25.0	24.0	19.0
8.7 27.1					_		
.900-2000	19.0	18.0	33.5	16.5	18.0	6.0	15.0
2.1 19.6							
2000-2100	11.0	5.0	6.5	13.0	13.0	1.0	14.0
9.2		- · ·	- • •			_, ,	
	2 0	7.0	4.0	0 0	12 0	6.0	12 0 1
100-2200	3.0	7.0	4.0	8.0	12.0	6.0	13.0
7.2							
200-2300	6.0	4.0	4.5	2.0	5.0	6.0	7.0
.0 4.6							
300-2400	4.0	1.0	1.5	4.0	9.0	4.0	7.0
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otals							
•							1
							I
700 1000	200 0	226.0	410.0	427.0	470 0	204.2	224 0 1
700-1900	380.0	336.0	410.0	437.0	470.0	284.0	221.0

	OHalloran	Terrace vi	irtual week	report	(WEST DIRE	CTION ONL'	Y).txt
421.1	384.5			-			•
0600-220	0 419.0	375.0	461.0	483.0	523.0	300.0	263.0
468.0	427.4						
0600-000	0 429.0	380.0	467.0	489.0	537.0	310.0	277.0
475.6	435.9						
0000-000	00 437.0	390.0	481.0	494.0	550.0	319.0	285.0
485.3	445.4						
AM Dools	0000	0000	1100	0000	0000	0000	1100 l
AM Peak	0800	0800	1100	0800	0800	0900	1100
	40.0	43.0	36.0	72.5	69.5	29.0	26.0
	40.0	45.0	50.0	12.5	05.5	23.0	20.0
							1
							'
PM Peak	1300	1300	1500	1500	1400	1600	1500
							•
	45.0	39.0	57.0	52.0	55.0	33.0	26.0

^{* -} No data.

OHalloran Terrace virtual week report (EAST DIRECTION ONLY).txt

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-47 -- English (ENA)

Datasets:

Site: [O'Halloran Terrace] 100m West of Wallace St

Attribute:

Direction: 8 - East bound A>B, West bound B>A. Lane: 0

Survey Duration: 14:45 Wednesday, 12 December 2018 => 16:05 Monday, 14

January 2019,

Zone:

File: O'Halloran Terrace 0 2019-01-14 1606.EC0 (Plus) Identifier: ND2876ZR MC5900-X11 (c)MetroCount 15Aug16

Algorithm: Factory default axle (v5.02)

Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 14:46 Wednesday, 12 December 2018 => 17:00 Friday, 21 December

2018 (9.09306)

Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

Speed range: 10 - 160 km/h.

Direction: East (bound), P = East, Lane = 0-16 Separation: Headway > 0 sec, Span 0 - 100 metre

Name: Default Profile

Scheme: Vehicle classification (AustRoads94)

Units: Metric (metre, kilometre, m/s, km/h, kg, tonne)

In profile: Vehicles = 4167 / 26738 (15.58%)

lack

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-47

Site: O'Halloran Terrace.0.1EW

Description: 100m West of Wallace St

Filter time: 14:46 Wednesday, 12 December 2018 => 17:00 Friday, 21 December

2018

Scheme: Vehicle classification (AustRoads94)

Filter: Cls(1-12) Dir(E) Sp(10,160) Headway(>0) Span(0 - 100) Lane(0-16)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Averages							
5 1 - 7 Hour							1 -
							1
0000-0100 0.6 0.9	1.0	0.0	1.0	0.5	0.5	3.0	1.0
0100-0200 0.1 0.3	0.0	0.0	1.0	0.0	0.0	1.0	1.0

		_					
		errace virt		-			•
0200-0300	0.0	1.0	0.0	0.0	0.0	3.0	0.0
0.1 0.4							1
0300-0400	0.0	0.0	0.0	0.0	0.5	0.0	0.0
0.1 0.1							
0400-0500	1.0	1.0	1.0	0.5	1.0	0.0	3.0
0.9 1.0							
0500-0600	4.0	4.0	2.0	1.5	2.5	0.0	3.0
2.6 2.3							
0600-0700	6.0	8.0	5.0	8.5	14.0	6.0	1.0
9.1 7.9							•
0700-0800	22.0	19.0	21.0	25.0	21.5	9.0	3.0
22.1 18.6							3.5
0800-0900	36.0	37.0	32.0	110.5	103.0	16.0	16.0
76.0 62.7		37.0	32.0	110.5	103.0	10.0	10.0
		17.0	20.0	25 5	40 F	12.0	10 0 l
0900-1000	32.0	17.0	39.0	25.5	40.5	13.0	18.0
31.4 27.9		22.0	24 0	20 5	27.0	22.0	22.0.1
1000-1100	31.0	23.0	31.0	28.5	27.0	22.0	32.0
28.0 27.8						.	
1100-1200	28.0	22.0	28.0	29.5	31.5	29.0	14.0
28.6 27.0							
1200-1300	34.0	41.0	38.0	40.5	41.0	30.0	13.0
39.4 35.4							
1300-1400	28.0	32.0	32.0	37.0	25.5	24.0	19.0
31.0 28.9							•
1400-1500	28.0	21.0	12.0	28.5	86.0	20.0	17.0
37.8 33.9							
1500-1600	29.0	23.0	90.0	74.0	34.0	19.0	28.0
56.0 49.5	23.0	23.0	30.0	74.0	34.0	10.0	20.0
1600-1700	25.0	39.0	34.0	39.0	32.5	19.0	19.0
		39.0	34.0	39.0	32.3	19.0	19.0
34.4 31.3		22.0	47.0	46 5	41 0	22.0	20 0 1
1700-1800	35.0	32.0	47.0	46.5	41.0	23.0	20.0
42.1 37.6							
1800-1900	17.0	20.0	32.5	16.0	29.0	23.0	17.0
23.3 22.6							
1900-2000	13.0	14.0	15.5	13.0	15.0	6.0	7.0
14.1 12.4							
2000-2100	4.0	6.0	4.0	8.0	13.0	5.0	13.0
6.7 7.2							
2100-2200	9.0	6.0	12.0	6.0	10.0	5.0	12.0
8.7 8.7							•
2200-2300	4.0	4.0	4.0	6.0	5.0	4.0	3.0
4.7 4.4				5.5	2.0		J. J
2300-2400	1.0	0.0	0.0	1.0	4.0	6.0	0.0
1.0 1.4	1.0	0.0	0.0	1.0	7.0	0.0	J.U
1.0							
Totals							
_							I
0700-1900	345.0	326.0	436.5	500.5	512.5	247.0	216.0

	OHalloran	Terrace vi	irtual week	report	(EAST DIR	ECTION ONL	Y).txt
450.1	403.0						
0600-22		360.0	473.0	536.0	564.5	269.0	249.0
488.8	439.3						
0600-00		364.0	477.0	543.0	573.5	279.0	252.0
494.6	445.1	270.0	402.0	545 5	F70 0	206.0	260 0 1
0000-000 499.0	00 388.0 450.3	370.0	482.0	545.5	578.0	286.0	260.0
499.0	450.5						1
							ı
AM Peak	0800	0800	0900	0800	0800	1100	1000
	36.0	37.0	39.0	110.5	103.0	29.0	32.0
							1
PM Peak	1700	1200	1500	1500	1400	1200	1500
Cak	1700	1200	1300	1500	1.00	1200	1500
	35.0	41.0	90.0	74.0	86.0	30.0	28.0

^{* -} No data.

OHalloran Terrace virtual week report.txt

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-44 -- English (ENA)

Datasets:

Site: [O'Halloran Terrace] 100m West of Wallace St

Attribute:

Direction: 8 - East bound A>B, West bound B>A. Lane: 0

Survey Duration: 14:45 Wednesday, 12 December 2018 => 16:05 Monday, 14

January 2019,

Zone:

File: O'Halloran Terrace 0 2019-01-14 1606.EC0 (Plus) Identifier: ND2876ZR MC5900-X11 (c)MetroCount 15Aug16

Algorithm: Factory default axle (v5.02)

Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 14:46 Wednesday, 12 December 2018 => 17:00 Friday, 21 December

2018 (9.09306)

Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

Speed range: 10 - 160 km/h.

Direction: North, East, South, West (bound), P = East, Lane = 0-16

Separation: Headway > 0 sec, Span 0 - 100 metre

Name: Default Profile

Scheme: Vehicle classification (AustRoads94)

Units: Metric (metre, kilometre, m/s, km/h, kg, tonne)

In profile: Vehicles = 8277 / 26738 (30.96%)

♠

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-44

Site: O'Halloran Terrace.0.1EW

Description: 100m West of Wallace St

Filter time: 14:46 Wednesday, 12 December 2018 => 17:00 Friday, 21 December

2018

Scheme: Vehicle classification (AustRoads94)

Filter: Cls(1-12) Dir(NESW) Sp(10,160) Headway(>0) Span(0 - 100) Lane(0-16)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Averages							1 -
5 1 - 7 Hour							
0000-0100 1.9 2.4	3.0	1.0	2.0	1.5	2.0	6.0	3.0
0100-0200 1.0 1.3	1.0	1.0	2.0	0.5	1.0	1.0	4.0

0200-0300	0.0	OHalloran 3.0	Terrace	virtual w	week report 1.0	.txt 6.0	0.0
0.9 1.3 0300-0400	0.0	1.0	2.0	0.0	2.5	1.0	1.0
1.1 1.1							
0400-0500 2.0 2.3	2.0	2.0	4.0	1.0	2.0	2.0	5.0
0500-0600	8.0	8.0	8.0	4.5	9.0	0.0	3.0
7.3 6.0 0600-0700 17.6 14.8	12.0	17.0	12.0	17.0	24.0	9.0	1.0
0700-0800 47.3 40.2	42.0	42.0	51.0	51.5	46.5	21.0	10.0
0800-0900 132.9 111.3	76.0	80.0	63.0	183.0	172.5	43.0	27.0
0900-1000 54.4 50.4	57.0	38.0	59.0	48.5	65.0	42.0	31.0
1000-1100 57.7 55.2	69.0	46.0	63.0	52.0	61.0	36.0	57.0
1100-1200 64.0 60.3	67.0	43.0	64.0	76.5	60.5	55.0	40.0
1200-1300 74.9 67.7	69.0	74.0	78.0	75.5	76.0	57.0	28.0
1300-1400	73.0	71.0	64.0	70.5	76.5	56.0	34.0
71.7 65.8 1400-1500	51.0	40.0	26.0	59.5	141.0	46.0	35.0
68.0 62.5 1500-1600	60.0	44.0	147.0	126.0	70.0	36.0	54.0
98.8 88.0 1600-1700 70.5 65.9	63.0	77.0	68.0	72.5	71.5	52.0	43.0
1700-1800 79.1 70.7	65.0	69.0	87.0	79.0	88.0	40.0	42.0
1800-1900 52.0 49.7	33.0	38.0	76.5	43.0	54.0	47.0	36.0
1900-2000	32.0	32.0	49.0	29.5	33.0	12.0	22.0
36.3 32.0 2000-2100 16.4 16.4	15.0	11.0	10.5	21.0	26.0	6.0	27.0
2100-2200	12.0	13.0	16.0	14.0	22.0	11.0	25.0
15.3 15.9 2200-2300	10.0	8.0	8.5	8.0	10.0	10.0	10.0
8.7 9.0 2300-2400	5.0	1.0	1.5	5.0	13.0	10.0	7.0
4.6 5.4							1
Totals						I	
_						1	
0700-1900	725.0	662.0	846.5	937.5	982.5	531.0	437.0

OHalloran	Terrace	virtual	week	report.t	xt
-----------	---------	---------	------	----------	----

871.3	787.5						
0600-2200	796.0	735.0	934.0	1019.0	1087.5	569.0	512.0
956.8	866.6						
0600-0000	811.0	744.0	944.0	1032.0	1110.5	589.0	529.0
970.1	881.1						
0000-0000	825.0	760.0	963.0	1039.5	1128.0	605.0	545.0
984.3	895.6						
AM Daala	0000	0000	1100	0000	0000	1100	1000
AM Peak	0800	0800	1100	0800	0800	1100	1000
	76.0	80.0	64.0	183.0	172.5	55.0	57.0
	70.0	80.0	04.0	103.0	1/2.5	33.0	37.0
							1
							ı
PM Peak	1300	1600	1500	1500	1400	1200	1500
· · · · · · · · · ·	1300	_000	_500	_500	00		_300
	73.0	77.0	147.0	126.0	141.0	57.0	54.0

^{* -} No data.

Margaret Street_VirtWeeklyVehicle-East Only.txt

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-68 -- English (ENA)

Datasets:

Site: [Margaret Street] Wehl St South to Bay Rd

Direction: 8 - East bound A>B, West bound B>A. Lane: 0

8:32 Monday, 7 November 2016 => 9:13 Monday, 21 Survey Duration:

November 2016

Zone:

Margaret Street21Nov2016.EC0 (Plus)

Identifier: V228PZP7 MC56-L5 [MC55] (c)Microcom 190ct04

Factory default (v3.21 - 15315)

Algorithm: Factory default (v3.21 - 15315)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 8:33 Monday, 7 November 2016 => 9:13 Monday, 21 November 2016

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 Included classes:

Speed range: 10 - 160 km/h. Direction: East (bound) Separation: All - (Headway)

Name: Default Profile

Scheme: Vehicle classification (AustRoads94)

Units: Metric (meter, kilometer, m/s, km/h, kg, tonne)

Vehicles = 18722 / 35230 (53.14%) In profile:

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-68

Margaret Street.0.0EW

Description: Wehl St South to Bay Rd

8:33 Monday, 7 November 2016 => 9:13 Monday, 21 November 2016 Filter time:

Scheme: Vehicle classification (AustRoads94)

Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(E) Sp(10,160) Headway(>0)

Averages	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Averages							1 -
5 1 - 7 Hour							I
0000-0100 0.9 2.3	1.0	0.5	0.5	1.0	1.5	2.5	9.0
0100-0200 1.6 1.9	0.5	0.5	1.5	3.5	2.0	2.0	3.0
0200-0300 0.5 1.4	0.5	0.5	0.5	0.5	0.5	3.5	4.0
0300-0400	0.0	0.5	0.5	1.0	1.0	1.5	5.0

•	garet Stre	et_VirtWe	eklyVehic	:le-East O	nly.txt		
0.6 1.4 0400-0500 1.0	1.0	2.0	2.0	2.5	0.0	1.0	
1.7 1.4 0500-0600 5.0	7.0	6.0	7.5	5.5	0.5	0.5	
6.2 4.6 0600-0700 20.5	21.5	23.0	19.5	21.5	7.5	4.5	
21.2 16.9 0700-0800 49.0	54.0	53.5	60.0	46.0	26.0	9.5	
52.5 42.6 0800-0900 110.3<	171.0<	176.5<	166.5<	159.5<	98.5	21.0	
152.5< 127.8< 0900-1000 86.7	126.5	114.0	133.0	134.5	129.5	34.0	
116.0 106.9 1000-1100 97.0	97.0	120.0	109.5	128.5	155.5<	59.0<	
110.4 109.5 1100-1200 104.5	104.0	117.0	134.0	117.5	117.5	58.0	
115.4 107.5 1200-1300 109.5	116.0	122.5	132.0	132.5	118.0<	54.5	
122.5 112.1 1300-1400 121.5	105.5	117.0	98.0	122.5	72.0	55.5<	
112.9 98.9 1400-1500 112.0	112.0	99.0	113.5	115.5	59.0	54.0	
110.4 95.0 1500-1600 200.5<	199.5<	207.5<	218.5<	188.0<	54.0	42.0	
202.8< 158.6< 1600-1700 155.0	154.0	144.0	162.0	131.0	59.5	44.5	
149.2 121.4 1700-1800 84.0	127.5	115.0	99.0	98.0	47.5	31.5	
104.7 86.1						•	
1800-1900 49.0 65.4 55.4	75.0	71.5	59.5	72.0	33.0	27.5	
1900-2000 29.0 31.8 28.4	25.5	27.5	39.0	38.0	25.5	14.5	
2000-2100 18.5 21.6 20.6	15.0	21.0	20.5	33.0	23.0	13.0	
2100-2200 7.0 10.1 9.7	10.5	13.0	8.0	12.0		7.5	
2200-2300 4.0 6.9 6.4	9.5	4.5	6.5	10.0	5.5	4.5	
2300-2400 5.5 4.4 4.1	2.5	4.0	4.5	5.5	5.5	1.0	
						I	
Totals							
_					<u></u> .		
0700-1900 1279.0	1442.0	1457.5	1485.5	1445.5	970.0	491.0	
1414.7 1221.7 0600-2200 1354.0 1499.4 1297.2	1514.5	1542.0	1572.5	1550.0	1036.0	530.5	

	Mar	garet Stre	eet_VirtWe	eeklyVehi	cle-East (Only.txt	
0600-0000	1363.5	1526.5	1550.5	1583.5	1565.5	1047.0	536.0
1510.7 13	307.7						
0000-0000	1371.5	1536.5	1561.5	1599.0	1578.5	1057.0	558.5
1522.2 13	320.5						
							l
AM Dools	0000	0000	0000	0000	0000	1000	1000 l
AM Peak	0800	0800	0800	0800	0800	1000	1000
	110.3	171.0	176.5	166.5	159.5	155.5	59.0
	110.5	1,110	170.5	100.5	133.3	133.3	33.0
							1
PM Peak	1500	1500	1500	1500	1500	1200	1300
	200.5	199.5	207.5	218.5	188.0	118.0	55.5 l

^{* -} No data.

Margaret Street_VirtWeeklyVehicle-West Only.txt

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-67 -- English (ENA)

Datasets:

Site: [Margaret Street] Wehl St South to Bay Rd

Direction: 8 - East bound A>B, West bound B>A. Lane: 0

8:32 Monday, 7 November 2016 => 9:13 Monday, 21 Survey Duration:

November 2016

Zone:

Margaret Street21Nov2016.EC0 (Plus)

Identifier: V228PZP7 MC56-L5 [MC55] (c)Microcom 190ct04

Factory default (v3.21 - 15315)

Algorithm: Factory default (v3.21 - 15315)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 8:33 Monday, 7 November 2016 => 9:13 Monday, 21 November 2016

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 Included classes:

Speed range: 10 - 160 km/h. Direction: West (bound) Separation: All - (Headway)

Name: Default Profile

Scheme: Vehicle classification (AustRoads94)

Units: Metric (meter, kilometer, m/s, km/h, kg, tonne)

Vehicles = 16459 / 35230 (46.72%) In profile:

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-67

Margaret Street.0.0EW

Description: Wehl St South to Bay Rd

8:33 Monday, 7 November 2016 => 9:13 Monday, 21 November 2016 Filter time:

Scheme: Vehicle classification (AustRoads94)

Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(W) Sp(10,160) Headway(>0)

Avonagos	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Averages							1 -
5 1 - 7 Hour							1
0000-0100 1.4 2.3	0.5	1.5	2.5	1.0	1.5	4.5	4.5
0100-0200 0.9 1.9	0.0	1.0	1.5	1.0	1.0	2.0	6.5
0200-0300 0.6 1.7	0.0	0.0	1.5	1.0	0.5	2.5	6.5
0300-0400	0.5	2.5	0.0	0.0	2.0	1.5	2.5

Marg	garet Stre	et_VirtWe	eklyVehio	:le-West O	nly.txt		
1.0 1.3							
0400-0500 0.5	0.5	0.5	2.0	0.5	0.5	2.0	
0.8 0.9							
0500-0600 7.0	3.5	5.5	6.5	7.0	1.0	2.0	
5.9 4.6							
0600-0700 17.0	18.0	12.5	14.0	16.0	5.5	2.5	
15.5 12.2							
0700-0800 36.5	30.0	38.0	46.0	33.5	18.0	7.5	
36.8 29.9							
0800-0900 80.3	124.5<	123.5<	124.0<	116.5<	52.0	16.5	
110.7< 90.3							
0900-1000 56.0	78.5	93.5	78.5	88.5	77.0	31.5	
76.9 70.9							
1000-1100 80.0	76.5	92.5	83.5	101.0	120.5	42.5<	
86.7 85.2							
1100-1200 95.5<	94.5	96.5	103.0	93.0	129.5<	38.5	
96.5 92.9<							
1200-1300 97.0	103.5	96.5	102.0	121.0	100.5<	63.5<	
104.0 97.7							
1300-1400 88.5	96.5	100.5	98.5	118.5	77.5	44.5	
100.5 89.2							
1400-1500 109.0	109.5	102.0	114.5	131.0	73.5	49.0	
113.2 98.4							
1500-1600 147.0<	153.5<	170.0<	144.5	153.0<	56.0	45.0	
153.6< 124.1<							
1600-1700 141.0	130.5	125.5	154.5<	123.0	59.0	54.5	
134.9 112.6							
1700-1800 136.5	123.5	118.5	118.5	95.0	38.5	36.0	
118.4 95.2	o= o			0		20 = 1	
1800-1900 57.5	87.0	69.0	63.5	75.0	27.5	30.5	
70.4 58.6	-1 0	40.0		4	0.5	04 = 1	
1900-2000 27.5	51.0	40.0	44.0	47.5	26.0	21.5	
42.0 36.8	24.0	20 5	21 0	40 5	17.0	17.0	
2000-2100 22.5	34.0	38.5	31.0	40.5	17.0	17.0	
33.3 28.6	0 5	14 5	17.0	27 5	1 F F	10 F J	
2100-2200 15.5 16.8 15.7	9.5	14.5	17.0	27.5	15.5	10.5	
16.8 15.7 2200-2300 5.5	6.0	7.5	8.0	11.0	15.0	4.5	
7.6 8.2	0.0	7.5	8.0	11.0	13.0	4.5	
2300-2400 3.5	3.5	4.0	4.0	9.5	7.5	1.5	
4.9 4.8	3.3	4.0	4.0	J.J	7.5	1.5	
						1	
						'	
Totals							
					1		
						I	
						·	
0700-1900 1124.8	1208.0	1226.0	1231.0	1249.0	829.5	459.5	
1202.6 1045.1							
0600-2200 1207.3	1320.5	1331.5	1337.0	1380.5	893.5	511.0	
1310.2 1138.4							

Margaret Street_VirtWeeklyVehicle-West Or	nly.txt	
0600-0000 1216.3 1330.0 1343.0 1349.0 1401.0	916.0	517.0
1322.7 1151.4		
0000-0000 1224.8 1339.0 1354.5 1360.5 1413.5	928.0	541.0
1333.3 1164.1		
		1
AM Peak 1100 0800 0800 0800 0800	1100	1000
AN 1 Eak 1100 0000 0000 0000	1100	1000
95.5 124.5 123.5 124.0 116.5	129.5	42.5
		•
DM David 4500 4500 4600 4500	1200	4200 L
PM Peak 1500 1500 1500 1600 1500	1200	1200
147.0 153.5 170.0 154.5 153.0	100.5	63.5

^{* -} No data.

Margaret Street_VirtWeeklyVehicle-66.txt

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-66 -- English (ENA)

Datasets:

Site: [Margaret Street] Wehl St South to Bay Rd

Direction: 8 - East bound A>B, West bound B>A. Lane: 0

8:32 Monday, 7 November 2016 => 9:13 Monday, 21 Survey Duration:

November 2016

Zone:

File: Margaret Street21Nov2016.EC0 (Plus)

Identifier: V228PZP7 MC56-L5 [MC55] (c)Microcom 190ct04

Factory default (v3.21 - 15315)

Algorithm: Factory default (v3.21 - 15315)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 8:33 Monday, 7 November 2016 => 9:13 Monday, 21 November 2016

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 Included classes:

Speed range: 10 - 160 km/h.

Direction: North, East, South, West (bound)

Separation: All - (Headway)

Name: Default Profile

Scheme: Vehicle classification (AustRoads94)

Units: Metric (meter, kilometer, m/s, km/h, kg, tonne)

Vehicles = 35181 / 35230 (99.86%) In profile:

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-66

Margaret Street.0.0EW

Description: Wehl St South to Bay Rd

8:33 Monday, 7 November 2016 => 9:13 Monday, 21 November 2016 Filter time:

Scheme: Vehicle classification (AustRoads94)

Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

Avonagos	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Averages							1 -
5 1 - 7 Hour							I
0000-0100 2.3 4.6	1.5	2.0	3.0	2.0	3.0	7.0	13.5
0100-0200 2.5 3.7	0.5	1.5	3.0	4.5	3.0	4.0	9.5
0200-0300 1.1 3.1	0.5	0.5	2.0	1.5	1.0	6.0	10.5
0300-0400	0.5	3.0	0.5	1.0	3.0	3.0	7.5

	Margaret :	Street_Vi	rtWeeklyV	ehicle-66	.txt		
1.6 2.6							
0400-0500 1.5	1.5	2.5	4.0	3.0	0.5	3.0	
2.5 2.3 0500-0600 12.0	10.5	11.5	14.0	12.5	1.5	2.5	
12.1 9.2	10.5	11.5	14.0	12.5	1.5	2.5	
0600-0700 37.5	39.5	35.5	33.5	37.5	13.0	7.0	
36.7 29.1						·	
0700-0800 85.5	84.0	91.5	106.0	79.5	44.0	17.0	
89.3 72.5	205 5	200.0.	200 5	276 0 .	450 5	27 5 1	
0800-0900 190.7 263.3< 218.1<	295.5<	300.0<	290.5<	276.0<	150.5	37.5	
0900-1000 142.7	205.0	207.5	211.5	223.0	206.5	65.5	
192.9 177.7	203.0	207.5	211.5	223.0	200.5	05.5	
1000-1100 177.0	173.5	212.5	193.0	229.5	276.0<	101.5<	
197.1 194.7						•	
1100-1200 200.0<	198.5	213.5	237.0	210.5	247.0	96.5	
211.9 200.4							
1200-1300 206.5	219.5	219.0	234.0	253.5	218.5<	118.0<	
226.5 209.9	202.0	247 5	406 5	244 0	440 5	400 0 1	
1300-1400 210.0 213.4 188.1	202.0	217.5	196.5	241.0	149.5	100.0	
213.4 188.1 1400-1500 221.0	221.5	201.0	228.0	246.5	132.5	103.0	
223.6 193.4	221.5	201.0	220.0	240.5	152.5	103.0	
1500-1600 347.5<	353.0<	377.5<	363.0<	341.0<	110.0	87.0	
356.4< 282.7<						,	
1600-1700 296.0	284.5	269.5	316.5	254.0	118.5	99.0	
284.1 234.0							
1700-1800 220.5	251.0	233.5	217.5	193.0	86.0	67.5	
223.1 181.3	4.50.0	440 =	400.0	4.5		I	
1800-1900 106.5	162.0	140.5	123.0	147.0	60.5	58.0	
135.8 113.9 1900-2000 56.5	76.5	67.5	83.0	85.5	51.5	36.0	
73.8 65.2	70.5	07.5	03.0	65.5	51.5	30.0	
2000-2100 41.0	49.0	59.5	51.5	73.5	40.0	30.0	
54.9 49.2							
2100-2200 22.5	20.0	27.5	25.0	39.5	25.5	18.0	
26.9 25.4							
2200-2300 9.5	15.5	12.0	14.5	21.0	20.5	9.0	
14.5 14.6	6.0	0.0	0.5	45.0	12.0	2 5 1	
2300-2400 9.0 9.3 8.9	6.0	8.0	8.5	15.0	13.0	2.5	
9.5 6.9						1	
						1	
Totals							
_							
						ļ	
0700 1000 2402 0	2650 0	2602 F	2716 F	2604 5	1700 E	مدہ د ا	
0700-1900 2403.8 2617.4 2266.7	2650.0	2003.3	2716.5	2694.5	1799.5	950.5	
0600-2200 2561.3	2835.0	2873.5	2909.5	2930.5	1929.5	1041.5	
2809.7 2435.7	· ·	- · ·	- , -	· -		· - I	

		Margaret	Street_Vi	.rtWeeklyV	ehicle-66/	.txt	
0600-0000	2579.8	2856.5	2893.5	2932.5	2966.5	1963.0	1053.0
2833.5 24 0000-0000	59.1 2596.3	2875.5	2916.0	2959.5	2992.0	1985.0	1099.5
2855.6 24	84.7						
							ļ
AM Peak	1100	0800	0800	0800	0800	1000	1000
	200.0	295.5	300.0	290.5	276.0	276.0	101.5
							1
PM Peak	1500	1500	1500	1500	1500	1200	1200
	347.5	353.0	377.5	363.0	341.0	218.5	118.0

^{* -} No data.





City of Mount Gambier - Regional Sport & Recreation Centre

Environmental Noise Assessment

A190546RP1 Revision A Thursday, 31 October 2019



Document Information

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Revision Table

Report revision	Date	Description	Author	Reviewer
0	29 October 2019	Draft	Brad Miller	Darren Jurevicius
Α	31 October 2019	First issue	Brad Miller	Darren Jurevicius



Glossary

A-weighting A spectrum adaption that is applied to measured noise levels to represent human

hearing. A-weighted levels are used as human hearing does not respond equally at all

frequencies.

Characteristic Associated with a noise source, means a tonal, impulsive, low frequency or modulating

characteristic of the noise that is determined in accordance with the Guidelines for the use of the Environment Protection (Noise) Policy (Noise EPP) to be fundamental to the

nature and impact of the noise.

Continuous noise level A-weighted noise level of a continuous steady sound that, for the period over which

the measurement is taken using fast time weighting, has the same mean square sound pressure as the noise level which varies over time when measured in relation to a noise source and noise-affected premises in accordance with the Noise EPP

Day Between 7 am and 10 pm as defined in the Noise EPP

dB Decibel—a unit of measurement used to express sound level. It is based on a

logarithmic scale which means a sound that is 3 dB higher has twice as much energy. We typically perceive a 10 dB increase in sound as a doubling of that sound level.

dB(A) Units of the A-weighted sound level.

Frequency (Hz) The number of times a vibrating object oscillates (moves back and forth) in one

second. Fast movements produce high frequency sound (high pitch/tone), but slow movements mean the frequency (pitch/tone) is low. 1 Hz is equal to 1 cycle per

second.

Indicative noise level
Indicative noise level determined under clause 5 of the Noise EPP.

L₉₀ Noise level exceeded for 90 % of the measurement time. The L₉₀ level is commonly

referred to as the background noise level.

L_{eq} Equivalent Noise Level—Energy averaged noise level over the measurement time.

L_{max} The maximum instantaneous noise level.

Night Between 10.00 p.m. on one day and 7.00 a.m. on the following day as defined in the

Noise EPP

Noise source Premises or a place at which an activity is undertaken, or a machine or device is

operated, resulting in the emission of noise

Quiet locality A locality is a quiet locality if the Development Plan provisions that make land use

rules for the locality principally promote land uses that all fall within either or both of

the following land use categories: (a) Residential; (b) Rural Living;

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1 Introduction

This report outlines the environmental noise assessment for the proposed development of the Mount Gambier Sports and Recreation Centre located on Margaret Street, Mount Gambier.

The development will contain two sets of three playing courts with music events to be held in one of the court spaces, spectator seating, indoor pool facilities, gym and exercise rooms, function spaces, offices and other ancillary facilities.

The potential noise emissions from the development have been assessed against the requirements of the South Australian environmental noise policy and the Mount Gambier (City) Development Plan.

2 Proposed development

2.1 Location

The proposed location for the Mount Gambier Sports and Recreation Centre is between Margaret Street and O'Halloran Terrace, Mount Gambier. Most nearby sensitive receivers are located across O'Halloran Terrace. Additionally, there is one residence located nearby on Margaret Street.

The location of the development in relation to the nearest noise receptors is shown in Figure 1. The proposed site plan is shown in Figure 2.



Figure 1 Location of proposed development with respect to nearby relevant receivers (yellow)





Figure 2 Proposed site plan, dated 6/9/19

2.2 Operation

The development will contain two sport spaces with three playing courts each and music events to be held in one of the sport spaces, spectator seating, indoor pool facilities, gym and exercise rooms, function spaces, offices and other ancillary facilities.

The following operation times have been assumed:

- Functions involving amplified music up until 12 midnight, weekends
- Sports Hall 7 am to 11 pm, every day of the week
- Indoor pool facilities Plant operating continuously
- Gym and exercise rooms 24 hours, every day of the week.

2.3 Existing land use

The proposed development location is currently occupied by several outdoor netball courts while other recreational activities are located within the same block. Figure 3 shows the location of the Old Mount Gambier Gaol with the respect to the proposed development. It is worth noting that the Old Mount Gambier Gaol site currently host open air music events.



Figure 3 Proposed development with respect to location of the Old Mount Gambier Gaol

Resonate

3 Development Plan

The proposed development is located within the City of Mount Gambier and needs to have regard to the Mount Gambier (City) Development Plan.

The proposed site is located in a 'Recreation' Zone, receivers across O'Halloran Terrace are located in a 'Residential' Zone, receivers to the east of the site are located in a 'Commercial' zone and receivers to across Margaret Street are in a 'City Centre' Zone. Figure 4 shows an excerpt from the Mount Gambier (City) development plan detailing zoning of the proposed development at nearby receivers.

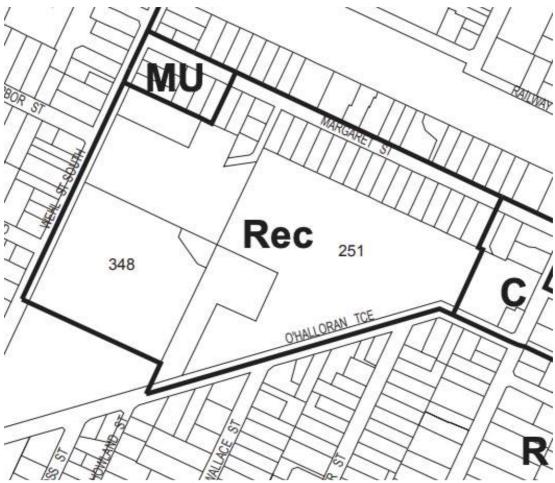


Figure 4 Except from Mount Gambier (City) Development Plan, 2016, showing council zoning

For the 'Recreation' Zone, the Development Plan notes the following Objective:

Objective 1: A zone primarily comprising open space and providing for a range of appropriate active and passive recreational pursuits.

For the 'Residential' Zone, the Development Plan notes the following Land Uses under the Principles of Development Control:

- 1. The following forms of development are envisaged in the zone:
 - Affordable housing
 - Domestic outbuilding in association with a dwelling
 - Domestic structure
 - Dwelling



- Dwelling addition
- Retirement village
- Small scale non-residential use that serves the local community, for example:
 - Child care facility
 - Health and welfare service
 - o Open space
 - Primary and secondary school
 - o Recreation area
 - Supported accommodation

For the 'Commercial' Zone, the Development Plan notes the following Principles of Development Control:

- 1. The following forms of development are envisaged in the zone:
 - Consulting room
 - Motel
 - Motor vehicle related business other than wrecking yard or crash repair workshop
 - Office
 - Petrol filling station
 - Service trade premises
 - Service industry
 - Shop with a gross leasable area less than 100 square metres
 - Store

For the 'City Centre' Zone, the Development Plan notes the following Principles of Development Control:

- 1. The following forms of development are envisaged in the zone:
 - Café
 - Bank
 - Consulting room
 - · Educational establishment
 - Emergency services facility
 - · Entertainment facility
 - Hotel
 - Indoor games centre
 - Motel
 - Office
 - Residential development in conjunction with a non-residential development
 - Restaurant
 - Shop
 - Supermarket

The council wide Principles of Development Control relevant for noise emission impacts are outlined below:

- PDC 1: Development should not detrimentally affect the amenity of the locality or cause unreasonable interference through any of the following:...(b) noise...
- PDC 2: Development should be sited and designed to minimise negative impact on existing and potential future land uses considered appropriate in the locality.
- PDC 4: Residential development adjacent to non-residential zones and land uses should be located, designed and/or sited to protect residents from potential adverse impacts from non-residential activities.

Noise Generating Activities

- PDC 6: Development should be sited, designed and constructed to minimise negative impacts of noise and to avoid unreasonable interference
- PDC 7: Development should be consistent with the relevant provisions in the current Environment Protection (Noise) Policy.

As seen in PDC 7, the Development Plan has specifically noted that environmental noise emissions at the planning stage are to be assessed in accordance with the *Environment Protection (Noise) Policy* 2007 (Noise EPP).



4 Noise criteria

4.1 Environmental noise policy

Environmental noise emissions from the proposed development should comply with the *Environment Protection* (*Noise*) *Policy* 2007 (Noise EPP) and this is the most relevant guideline to address the requirements of the Development Plan.

The noise goals in the Noise EPP are based on the zoning of the development and the closest noise affected premises in the relevant development plan. The land uses primarily promoted by the zones are used to determine the environmental noise criteria with the indicative noise factors shown in Table 1.

Table 1 Excerpt from Noise EPP—Table 2(subclause(1)(b))

Land use category	Indicative noise factor dB(A)						
	Day (7 am to 10 pm)	Night (10 pm to 7 am)					
Rural living	47	40					
Residential	52	45					
Rural industry	57	50					
Light industry	57	50					
Commercial	62	55					
General industry	65	55					
Special industry	70	60					

The development is located in a 'Recreation' Zone. The 'Guidelines for the use of the Environmental Protection (Noise) Policy, 2007' notes:

...the Residential land use category may be assigned to a park or reserve set aside for public recreation or enjoyment in a residential urban area.

Receivers across O'Halloran Terrace are located in a 'Residential' Zone, and receivers adjacent to the site and across Margaret Street are located in a 'Commercial' zone. Based on the desired character and objectives for these zones, the land used primarily promoted are:

- 'Recreation' Zone Residential land use
- 'Residential' Zone Residential land use
- 'Commercial Zone Commercial land use
- 'City Centre' Zone Commercial land use

Note that if the noise source and the noise affected receptor are located in zones where different land use categories are promoted, then the noise criteria would be an average of those relevant indicative noise factors.

In accordance with Part 5 of the Noise EPP, the relevant criteria for this development will be the relevant indicative noise factors less 5 dB(A). A summary of the relevant noise criteria is outlined in Table 2.



Table 2 Summary of the Noise EPP criteria

Receptor	Noise EPP criteria, dB(A)			
	Day (7 am to 10 pm)	Night (10 pm to 7 am)		
Residences opposite site on O'Halloran Terrace	47 L _{eq}	40 L _{eq}		
Residence and commercial buildings on Margaret Street	52 L _{eq}	45 L _{eq}		

Penalties can also be applied to a noise source for a variety of characteristics, such as impulsive, low frequency, modulating or tonal characters. For a characteristic penalty to be applied to a noise source it must be fundamental to the impact of the noise and dominate the overall noise impact. Application of the characteristic penalty is discussed in the noise emission assessment.

We note that under Part 5, Clause 20(6) of the Noise EPP, exceedance of the recommended criterion does not necessarily mean that the development will be non-compliant. Some of the following matters should be considered when considering compliance:

- the amount by which the criterion is exceeded (in dB(A))
- the frequency and duration for which the criterion is exceeded
- the ambient noise that has a noise level similar to the predicted noise level
- the times of occurrence of the noise source
- the number of persons likely to be adversely affected by the noise source and whether there is any special need for quiet.

4.2 Music noise

Music noise emissions are typically assessed under the Environment Protection Authority (EPA) *Music noise from indoor venues and the South Australian Planning System* (2015). This guideline has been development by the South Australian EPA to assist the assessment of music noise emissions for development applications.

The music noise (L_{A10,15}) when assessed at the nearest noise sensitive location should be:

• less than 8 dB above the background noise level (L_{90,15}) in any octave band.

Resonate

5 Noise monitoring

5.1 Details

Background noise monitoring was undertaken from Friday 21 April to Friday 28 April 2017, on O'Halloran Terrace in the location shown on Figure 5 below.



Figure 5 Location on unattended measuring point (MP)

5.2 Instrumentation

The noise measurements were taken with a calibrated Rion NL-42 (S/N 946977) sound level meter, which is a Type 2 instrument suitable for field and laboratory use. The sound level meter was calibrated both before and after the measurements using a Type 1 Brüel & Kjær 4231 sound level calibrator, and the calibration was found to have not drifted. Both the sound level meter and calibrator carry current calibration certificates from a NATA accredited laboratory. Copies of the calibration certificates are available on request.



5.3 Procedure

Noise measurements were undertaken in accordance with the following:

- The microphone of the sound level meter was at a height of approximately 1.2 metres above the ground.
- A windshield was used during all measurements.
- Noise measurement statistics were recorded at each consecutive 15 minute period for the duration of monitoring.

5.4 Results

Background spectral levels should be representative of operational hours for the Mount Gambier Sports and Recreational Centre Development.

Figure 6 and Figure 7 below shows the results of unattended noise monitoring. Note that measurements take after 17 October, 2019 have been omitted from calculations due to inclement weather.

It can be seen that during the day time, ambient noise levels are consistently between 50 and 60 dB(A) L_{eq} while night time minimum levels are typically 40 dB(A) L_{eq} .

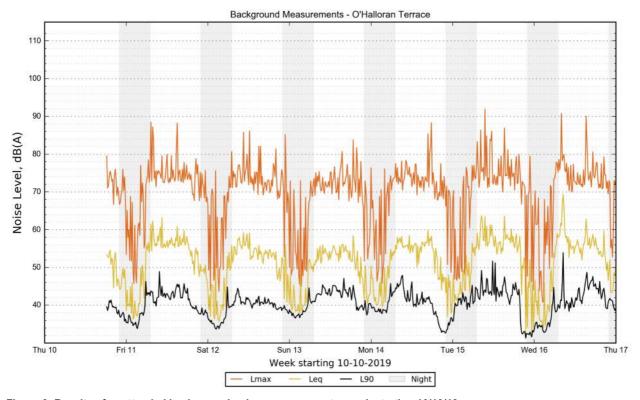


Figure 6 Results of unattended background noise measurements, week starting 10/10/19



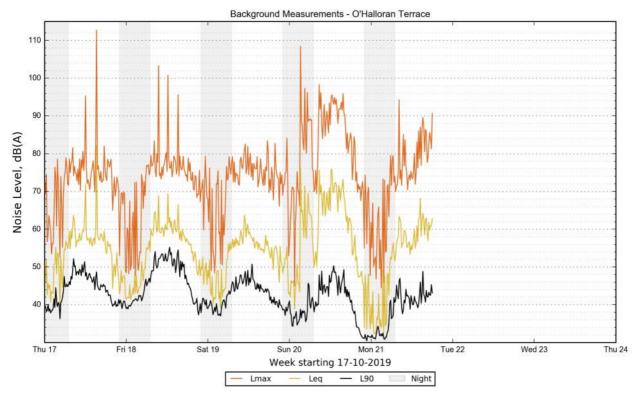


Figure 7 Results of unattended background noise measurements, week starting 17/10/19

5.5 Music noise criteria

It has been assumed that 9 am to 12 am is representative of the potential hours of operation of the amplified music.

The lowest background spectral levels for each time period are presented in Table 3.

Table 3 Lowest measured background noise level — 9 am to 12 am

	Total, dB(A)						
Octave band centre frequency, Hz							
63	125	250	500	1000	2000	4000	
15	23	20	27	26	19	15	31

Based on the measured background noise levels, the L₁₀ music noise criteria as outlined in Table 4.

Table 4 Applicable music noise criteria — 9 am to 12 am

Music noise level criteria, L₁₀ dB(A)							Total, dB(A)
Octave band centre frequency, Hz							
63	125	250	500	1000	2000	4000	
23	23 31 28 35 34 27 23						



While lowest recorded levels have been used to generate applicable music noise criteria above (in line with standard practice), it is valuable to consider this in context with the average background noise levels. Table 5 below shows the average octave noise levels for the period of 11 pm to 12 am.

Table 5 Average measured background noise level — 11 pm to 12 am

Background noise level, L ₉₀ dB(A)							Total, dB(A)
Octave band centre frequency, Hz							
63	125	250	500	1000	2000	4000	
20	28	28	33	32	25	18	37

Based on the average background noise levels, an average L_{10} music noise level criteria is outlined in Table 6 for the worst case time period between 11 pm to 12 am.

Table 6 Average music noise level criteria — 11 pm to 12 am

Music noise level criteria, L ₁₀ dB(A)							Total, dB(A)
Octave band centre frequency, Hz							
63	125	250	500	1000	2000	4000	
28	28 36 36 41 40 33 26						

While the average music noise level criteria outlined in Table 6 is not strictly applicable in line with standard practice, it nevertheless provides additional context to assess the magnitude of any noise exceedance.



6 Noise modelling

6.1 Noise sources

The most significant internal noise source from the development will be amplified music noise associated with functions occurring within the western sports hall. Noise from this situation has been modelled against the relevant music noise criteria as specified in Section 5.5. Internal noise from the gym, indoor pool facilities and other sports hall are not deemed to negatively impact the noise environment due to being enclosed spaces with reduced internal noise levels.

Noise emissions from carparking facilities and deliveries have also been assessed against the relevant EPP noise criteria outlined in Section 4.1.

6.2 Facade construction

Table 7 outlines the facade constructions and glazing requirements for the western sports hall in order to meet the noise criteria specified in Section 5.5. Note that the constructions are conceptual and will be developed further during the detailed design phase. Further discussion on alternative constructions is provided in Section 7.1.1.

Table 7 Facade constructions and glazing requirements for western sports hall

Facade element	Construction requirements (or acoustic equivalent)							
	Facade Constructions							
Ceiling/ Roof	 External metal deck Z purlin with 200 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 2 x 12 mm fibre cement sheets Suspended light steel grid with 300 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 1 x 18 mm MDF Veneer (not perforated) 							
Southern Wall	 External metal cladding Steel stud with 300 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 3 x 12 mm fibre cement sheets 1x 12 mm MDF Veneer on 35 mm top-hats (not perforated) 							
	Glazing/ Glazed Doors							
Fixed glazing	Proprietary acoustic glazing system with an R_W 40 rating, such as 12.5 mm Viridian 'VLam Hush'							
Doors	 Hinged Doors minimum 10 mm laminated glass door high quality rubber contact seals for the head and the jambs acoustically equivalent to Kilargo IS7080si or Raven RP10 dropdown seal at the bottom acoustically equivalent to Kilargo IS8010si or Raven RP8si double doors to also have meeting stile seals acoustically equivalent to Kilargo 2xIS7060si or IS7071si, or Raven 2xRP16 or 2xRP71Si Sliding Doors Lotus 'Acoustic Sliders - Glazed' (R_W 30)—face sliders, or AWS Slidemaster with 10.38mm laminated glass to achieve a minimum R_W 30 rating, or acoustically equivalent 							

It has been assumed that there is no operable glazing and that doors will remain closed during events.



6.3 Modelling methodology

Noise emissions from the site have been modelling in SoundPLAN Environmental Software v8.1 program, using ISO 9613-2: 1996. The model takes into consideration:

- Attenuation of the noise source due to distance
- Barrier effects from buildings, topography and the like
- Air absorption
- Ground effects
- Meteorological conditions favourable for noise propagation. These conditions are for downwind propagation or, equivalently, propagation under a well-developed moderate ground-based temperature inversion, such that commonly occurs at night.

6.4 Characteristic noise penalties

We note that penalties to the source level may be applicable in accordance with the Noise EPP to recognise annoyance associated with noise that is dominated by tonal, modulating, low frequency, or impulsive characteristics. For a characteristic penalty to be applied to a noise source it must be fundamental to the impact of the noise source and dominate the overall noise impact. The application of such a penalty has been discussed after each modelling scenario. Note that characteristic penalties are not applicable to music noise assessments.



7 Noise assessment

7.1 Music noise assessment

The maximum internal music noise levels (L_{10}), within the western sports hall, are to be limited to the levels presented in Table 8. We believe the spectrum will be appropriate for this type of venue with amplified music.

Table 8 Maximum allowable music sound level spectrum

Indoor music noise level, L ₁₀ dB(A)							Total, dB(A)
Octave band centre frequency, Hz							
63	125	250	500	1000	2000	4000	
67	67 77 89 95 95 92 85						

With the conceptual construction listed in Section 6.2, there are exceedances of the 63 Hz music noise criteria by 1-2 dB at four residences. Note that exceedances of 1-3 dB are generally not perceptible.

7.1.1 Music noise level exceedance sensitivity to alternative facade construction

Given that the proposed facility is envisaged to host up to four concerts per year, we believe that it is reasonable to consider a relaxation of the facade construction requirements (conceptually outlined in Section 6.2), particularly in the understanding that concerts held at the 'old Gaol' have been open air concerts historically.

To assist this consideration, Table 9 provides alternate constructions for the southern wall and roof/ceiling, while Table 10 shows the predicted levels at the worst-case residential receiver for each construction.

Table 9 Alternate facade constructions

Facade element	Construction requirements							
	Alternate construction 1 (minimum construction - baseline)							
Ceiling/ Roof	 External metal deck Z purlin with 200 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 12 mm MDF veneer on 35 mm top-hats 							
Southern Wall	 External metal cladding Steel stud with 300 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 12 mm fibre cement sheet 12 mm MDF veneer on 35 mm top-hats (not perforated) 							
	Alternate construction 2 (reduced fibre cement)							
Ceiling/ Roof	 External metal deck Z purlin with 200 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 1 x 12 mm fibre cement sheets Suspended light steel grid with 300 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 1 x 18 mm MDF veneer 							
Southern Wall	 External metal cladding Steel stud with 300 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 							



	 2 x 12 mm fibre cement sheets 12 mm MDF veneer on 35 mm top-hats (not perforated) 						
	Alternate construction 3 (perforated wall linings)						
Ceiling/ Roof	 External metal deck Z purlin with 200 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 1 x 12 mm fibre cement sheets Suspended light steel grid with 300 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 1 x 18 mm MDF veneer 						
Southern Wall	 External metal cladding Steel stud with 300 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 2 x 12 mm fibre cement sheets 12 mm perforated MDF veneer on 35 mm top-hats with 14 kg/m³ insulation in cavity 						
	Comparison construction from Table 7						
Ceiling/ Roof	 External metal deck Z purlin with 200 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 2 x 12 mm fibre cement sheets Suspended light steel grid with 300 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 1 x 18 mm MDF veneer 						
Southern Wall	 External metal cladding Steel stud with 300 mm cavity Minimum 100 mm, 14 kg/m³ insulation in the cavity 3 x 12 mm fibre cement sheets 12 mm MDF veneer on 35 mm top-hats 						

Table 10 Worst-case predicted levels for each facade construction

Construction	Predicted music noise level at worst case receiver, L ₁₀ dB(A) (exceedances shown in brackets)						Total, dB(A)	
	Octave band centre frequency, Hz							
	63	125	250	500	1000	2000	4000	
1	38 (15)	37 (6)	33 (5)	33	34	34 (7)	17	43 (4)
2	29 (6)	24	28	32	31	27	8	37
3	30 (7)	24	28	32	31	27	11	37
4	26 (3)	23	28	32	31	26	8	36

As seen in Table 10, regardless of construction, the 63 Hz band (i.e. typically the dominant bass frequency band) controls construction requirements. Note that the perception differences between constructions 2, 3 and 4 would be negligible in practice. Therefore, we recommend that it may not be reasonable to control this octave band and that a compromise between cost and acoustic requirements be considered, particularly in context with the current open-air concerts that have been occurring at the 'old Gaol' site.



7.2 Other indoor recreation noise

Internal noise from the gym and fitness centres, indoor pool facilities and other ancillary facilities are not deemed to negatively impact the noise environment due to being enclosed spaces with reduced internal noise levels.

Calculations for the eastern sports hall were conducted and it was found that, as expected, predicted noise levels were well below noise criteria and that further assessment is not required.

7.3 Car park assessment

Noise levels for the carparks are automatically calculated in the SoundPLAN based on the number of carparks in a parking lot and the amount of car movements into a carpark per hour, according to ISO 9613-1996 (Parkplatzlarmstudie 2007). This methodology automatically uses a correction factor of 4 dB(A) as a characteristic penalty in line with the standard procedure in Germany. For the purposes of this assessment, the characteristic penalty was increased to 5 dB(A) due to the modulating nature of carpark noise in accordance with the Noise EPP.

The following assumptions are based on the Traffic Impact Assessment prepared by GTA Consultants, dated 29/08/19:

- 269 total car parking spaces, with 200 allotted to the parking lot located off Margaret Street and 69 located off O'Halloran Terrace.
- 123 maximum cars per hour (predicted for Saturday between 7 am and 11 am), split between the two parking lots.

Table 11 summarises the maximum predicted noise levels from carp parking noise emissions.

Table 11 Predicted maximum noise levels from car park

Receiver	Noise level, L _{eq} dB(A)							
	Predicted	Day time criteria	Night time criteria					
5 O'Halloran Terrace	35	47	40					
7 O'Halloran Terrace	38	47	40					
9 O'Halloran Terrace	44	47	40					
11 O'Halloran Terrace	44	47	40					
13 O'Halloran Terrace	43	47	40					
15 O'Halloran Terrace	41	47	40					
15A O'Halloran Terrace	42	47	40					
1 Margaret Terrace	31	52	45					

While night time criteria are exceeded at several residences, this is only for the worst-case scenario which is unlikely to occur during the night-time period. It is a more reasonable assumption that the maximum night-time traffic is 50% of the above maximum. Reducing the traffic by 50% reduces predicted noise levels by 3 dB. As such, there are only two receivers that exceed the night-time criteria, each by 1 dB. It is noted that 1-2 dB is generally not perceptible and as such, the predicted exceedances are acceptable and will meet the intent of the Noise EPP.



7.4 Loading facilities assessment

For each of the loading facilities assessment; the noise model includes the following peak activity, assumptions and features:

- One 12.5 m heavy rigid vehicle slowing moving through the site per 15-minute period, with a sound power of 99 dB(A)
- One delivery vehicle idling during loading, with a sound power of 91 dB(A)
- Deliveries for all sites will only occur between during the day, not during peak periods.

Most loading activity will occur on the service road to the east of the development. However, during events, the O'Halloran Terrace car park will be used as loading by heavy vehicles. Table 12 summarises the maximum predicted noise levels from loading activities on the service road. Table 13 summarises the maximum predicted noise levels from loading activities in the O'Halloran Terrace carpark.

Table 12 Predicted maximum noise levels from service road loading activities

Receiver	Noise level, L _{eq} dB(A)				
	Predicted	Day time criteria			
5 O'Halloran Terrace	47	47			
7 O'Halloran Terrace	45	47			
9 O'Halloran Terrace	30	47			
11 O'Halloran Terrace	28	47			
13 O'Halloran Terrace	24	47			
15 O'Halloran Terrace	22	47			
15A O'Halloran Terrace	22	47			
1 Margaret Terrace	38	52			
Commercial premises adjacent service road					
Meals on Wheels	58	47			
Mount Gambier Scouts	54	47			

Table 13 Predicted maximum noise levels from O'Halloran Terrace loading activities

Receiver	Noise level, L _{eq} dB(A)				
	Predicted	Day time criteria			
5 O'Halloran Terrace	36	47			
7 O'Halloran Terrace	40	47			
9 O'Halloran Terrace	44	47			
11 O'Halloran Terrace	43	47			
13 O'Halloran Terrace	44	47			
15 O'Halloran Terrace	44	47			
15A O'Halloran Terrace	43	47			
1 Margaret Terrace	15	52			



It can be seen in Table 12 and Table 13 that the noise level during delivery periods are within the daytime criterion at all residential receivers. Characteristic penalties were not deemed necessary for delivery vehicles as background noise monitoring demonstrated that existing noise levels are consistently between 50-60 dB(A) during the day as noted in Section 5.4.

There are two commercial receivers directly adjacent the service road as shown in Figure 8 below. The commercial receivers are located in the 'Recreation' zone and thus have criterion of 47 dB(A) during the day. As seen in Table 12, these predicted levels exceeds the criterion by 7-11 dB.

However, note that these receivers are commercial premises and that residential criteria may not be suitable. Furthermore, deliveries are also an infrequent occurrence and only during the daytime period. It is for these reasons that we do not consider it reasonable to mitigate these premises with the use of a noise barrier or other acoustic mitigation.



Figure 8 Commercial premises adjacent to service road

7.5 Mechanical services and plant noise

Noise emissions from all mechanical plant will be assessed and designed to comply with the design criteria outlined in Section 4.1. Noise mitigation treatments may include appropriate location of external plant, use of acoustic louvers for the plant rooms, inclusion of acoustic absorption within the plant room, selection of low noise equipment, use of attenuators on fan discharge, and the like. Acoustic treatment of mechanical services and open ventilation areas, will be addressed during the detailed design stage of the project.



To control mechanical noise emissions, we suggest a Development Plan Consent condition which states that the plant and equipment shall be designed and constructed to comply with the noise targets listed in the current Environment Protection (Noise) Policy, Part 5—Development authorisation applications, Clause 20 Development authorisation applications.



8 Conclusion

An environmental noise impact assessment has been undertaken for the Mount Gambier Sports and Recreation Centre development at located on Margaret Street, Mount Gambier.

This assessment has demonstrated that, with the noise mitigation treatments and operation detailed in this report, the proposed development is able to comply with the intent of the relevant environmental noise criteria and therefore satisfy the Mount Gambier (City) Development Plan and EPA requirements.

However, we recommend that a compromise between facade cost and acoustic performance be considered for the western sports hall given the low number of potential concert events held in the hall per year. For further context, we understand that previous concerts in the area have been occurring in open air (i.e. outdoors) at the 'old Gaol' site.



Stormwater Management Plan

DATE 21/11/2019

TO City of Mount Gambier

ATTN Nick Serle

PROJECT City of Mount Gambier Community & Recreation Hub



Revision Table

REV	DATE	ISSUE DESCRIPTION	PREPARED	REVIEWED	CHECKED	ISSUED
Α	20/10/2019	Preliminary Issued for Review	GK	NP		
В	14/11/2019	Draft Final	NP	GK		
С	21/11/2019	Final	NP	GK		

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1 Introduction

1.1 Background

The site is located at 5A Margaret St, Mount Gambier SA 5290 within City of Mount Gambier.

The proposed development (Project) includes the demolition of existing structures, and refurbishment of an existing pool including aquatics and associated pool perimeter engineering, and structural modifications. The surrounding grounds will be transformed to integrate with the new development.

A multi-use Courts Facility is proposed to include new pools, indoor courts, and amenities along with the associated civil engineering and stormwater drainage works.

The existing carpark will be increased in size to accommodate additional carparks and bus circulation and layby set down facilities.

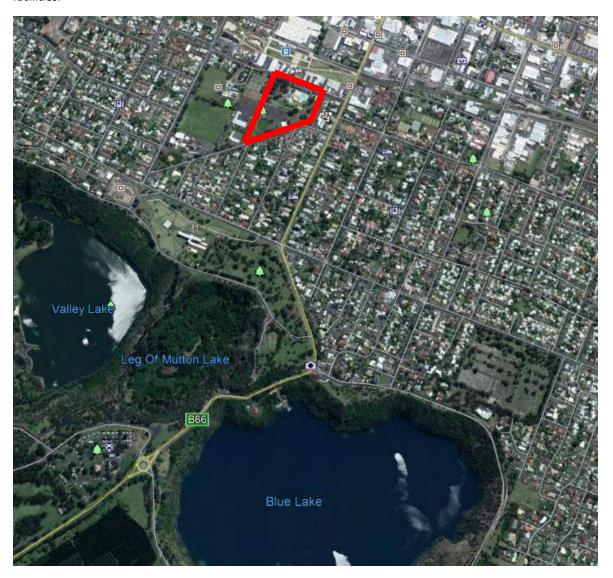


Figure 1 - Site Locality



1.2 Objectives of this Report

The key objectives of this report include:

- Define the design criteria for augmented stormwater systems;
- Review the stormwater sub-catchments impacted by the works, including the management of stormwater 'pre' and 'post' development;
- Consider water quality treatment and pollution prevention options for the impacted sub-catchments; and
- Summarise the recommended stormwater works to be delivered by the Project.

1.3 Limitations

This report has the following limitations:

- Understanding of the location and condition of the existing stormwater system is based on survey by Cameron Lock (file name: 26677-02 Underground Services-Revision 2; dated: 3 July 2019). A desktop review was also undertaken of existing council records including design drawings of the onsite bore 149 discharge configuration.
- No CCTV investigations, or the like, have been undertaken as part of this report; and
- The scope of the Project does not include upgrades to the stormwater system outside of the proposed works boundary (example. The project excludes upgrades of existing netball courts drainage). Therefore, stormwater upgrades have been developed in context of the current scope elements included in the Project.



2 Existing Stormwater Conditions

The existing stormwater system conveys water in three sub catchments with the existing discharges from site:

- Bore 149 near Margaret St
- Sink hole near O'Halloran Terrace through existing Stormwater Quality Improvement Devise (SQID)
- Sheet flow Off Site



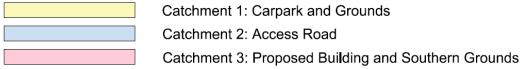


Figure 2 - Existing Catchment Areas



2.1 Existing Sub-catchment - Bore 149

Existing flows to Bore 149 originate from the netball courts, carparking, and pool grounds. The flows from the carparking pass through a triple interceptor with three baffles where silt can settle prior to discharge into Bore 149. The condition of the triple interceptor is unconfirmed.

2.2 Existing Sub-catchment – Access Road

The existing flows in this sub-catchment are currently conveyed by means of surface flows to surrounding areas.

2.3 Existing Sub-catchment – Sink Hole

Existing flows to the sink hole consist of the netball courts, carparking, and the adjacent grounds that are conveyed to the south side of the sinkhole and pass through a CDS unit prior to discharge into the basin where the stormwater infiltrates into the ground. Council has advised that the sink hole has never been seen to surcharge and has capacity for increased flow.

3 Proposed Scope

3.1 Stormwater Scope of works

The proposed stormwater works will include the following augmentation of the existing system:

- New pit and pipe system for landscaping areas and carpark extension
- Downpipe collection and reticulation towards point of discharge
- Site grading to accommodate overland flow paths
- Outdoor 50m pool concourse drainage modifications
- Erosion and Sediment Control;
- On-site detention including connection to the existing Council drainage system; and
- Stormwater quality treatment system (WSUD).



4 Basis of Design

4.1 General Principles

The proposed stormwater drainage systems augmentation associated with each catchment will adopt the following principles:

- Be in accordance with relevant Australian Standards and EPA Guidelines for Stormwater Management in Mount Gambier
- Maintain the existing flow regimes and drainage flow patterns across the site where not impeded by proposed works;
- Stormwater quality will be managed by integrating suitable pollution prevention and treatment measures into the stormwater system.

4.2 Design Standards

The design criteria and standards for the civil works include:

- Australian Rainfall and Runoff 2016;
- Mount Gambier City Development Plan 2016;
- EPA Guidelines for Stormwater Management in Mount Gambier;
- Soil and Water Management, Landcom's Soil and Construction Manual (Blue Book); and
- AS 3500.3: 2015 Plumbing and Drainage Stormwater Drainage

4.3 Design Criteria

- Pipes to convey stormwater up to 1:10 ARI
- Overland flow paths in excess of 1:10 ARI up to 1:100 ARI
- Post development stormwater flow discharge will not exceed pre-development flows; and
- Freeboard to buildings of 300mm to be maintained during 1:100 ARI
- Reductions in SS/TP/TN = 80/45/45
- Retention of litter and sediment up to the 3-month ARI
- No visible oils for flow up to 3-month ARI



5 The Proposed Stormwater Management System

The proposed stormwater system conveys water in three sub catchments with similar boundaries as the existing conditions. The changes in the sub-catchment areas and pervious/ impervious areas are described below. The areas are as follows:

- Bore 149 near Margaret St
- Sink hole near O'Halloran Terrace
- Sheet flow Off Site



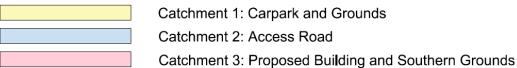


Figure 3 - Proposed Catchment Areas



5.1 Proposed Sub-catchment - Bore 149

The scope of works within this catchment includes demolition of the existing plant room and small pools. The proposed works include a carpark extension, pavement for new building entranceway, footpaths, and raising of the existing 50m pool concourse slabs.

5.1.1 Proposed Stormwater Management Overview

The stormwater scope includes the augmentation of the existing stormwater management system with a pit and pipe network to collect flows from the carpark extension and modified landscaping areas.

Flows from the carpark are proposed to connect to the existing system. The first flush (3 month flow) will pass through the existing triple interceptor where silt, leaves, and debris will settle. The flow is proposed to pass through a hydrocarbon filter system with the capacity to remove hydrocarbons up to the 3 month ARI as proscribed by EPA Guidelines of Mt Gambier. The clean effluent is then discharged into the on-Site Detention (OSD) tank.

Flow from the landscaping and building apron is proposed to be collected by surface inlet pits and conveyed via a pit and pipe network with a screen basket at the last pit prior to discharge into the OSD tank.

The OSD tank is designed to limit flows to pre-development conditions with controlled flow outlet into the existing bore.

Overland flow within the development has been accommodated through grading all areas of the site to ensure that fall is maintained away from the proposed building. Finished Floor Levels have been adopted to ensure that overland flow will not impact on habitable areas and that appropriate freeboard is maintained to building thresholds.

5.1.2 Pre/ Post Development Comparison

The proposed area associated with the northern catchment is reduced in comparison with the existing condition as a result of the proposed works diverting clean roof water to the sink hole. The impervious area is increased due to the extent of proposed pavements. Onsite detention has been provided for this catchment in order to limit flows to predevelopment conditions.

Table 1 - Pre/ Post - Carpark and Grounds Catchment

CARPARK AND GROUNDS	PERVIOUS AREA	IMPERVIOUS AREA	TOTAL AREA
Pre-Development	10100	9900	20000
Post Development	4600	12400	17000

5.1.3 On-Site Detention (OSD)

The OSD system within the northern part of the site has been developed in accordance with Mount Gambier City Development Plan and 2016 EPA Guidelines for Stormwater Management in Mount Gambier.

The Runoff Routing method (ILSAX) has been executed using DRAINS modelling software to design the proposed stormwater drainage system and to determine the required storage volume and Peak Site Discharge. This has been compared to the predevelopment stormwater flows.

The site is proposed to maintain its existing flow direction. A single OSD/infiltration tank is proposed to be located adjacent to the discharge bore to the underlying unconfined aquifer. The proposed construction method of the tank is of



flow cells that promote infiltration. The OSD tank is designed to restrict the Q100, Q10 and Q1 post development flows from the site to the Q100, Q10 and Q1 predevelopment flows level.

Assessment of the northern catchment presented above requires an OSD storage volume of 80m3 provided within an underground Atlantis tank (or approved equivalent). The Q100 Site Discharge was determined at 324 L/sec. This discharge is controlled using a 5mm stainless steel sharp edged orifice plate with a diameter of 260mm. Stormwater flows from the OSD tank will be directed into a discharge bore to the underlying unconfined aguifer.

Pre- vs. Post-development flows for the site as determined using DRAINS is as follows:

Table 2 - Pre/ Post Flows

ARI	POST-DEVELOPMENT OUTFLOW (L/S)	PRE-DEVELOPMENT OUTFLOW (L/S)
1yr	0.050	0.071
10yr	0.091	0.155
100yr	0.324	0.334

5.1.4 Stormwater Quality

Music modelling was conducted as described in Stormwater Quality section below. The following treatment chain is proposed for the northern catchment.

- Ocean Guard baskets (or approved equivalent) in all pits within landscaped areas
- Carpark catchment to pass through Spel Hydrosystem (or approved equivalent) to remove hydrocarbons up to the 3-mo ARI



5.2 Proposed Sub-catchment – Access Road

The proposed scope of works within this catchment area consists of building an access road alongside the proposed building thereby connecting O'Halloran Terrace to the back of the existing scouts building driveway.

5.2.1 Proposed Stormwater Management Overview

The access road is proposed with a flush kerb that will allow surface flow to sheet off in the direction of existing conditions. The flows are not proposed to be channelised so as not to change the existing condition.

5.2.2 Pre/ Post Development Comparison

The proposed area associated with the access road catchment is significantly reduced as a result of the proposed building catchment diverting flows in the other direction. Despite the additional impervious area from the proposed access road, the total impervious area is still reduced due to the demolition works.

As the impervious area is reduced in this catchment, OSD is deemed not required.

Table 3 - Pre/Post - Access Road Catchment Areas

ACCESS ROAD	PERVIOUS AREA	IMPERVIOUS AREA	TOTAL AREA
Pre-Development	3400	3400	6800
Post Development	600	1500	2100

5.3 Proposed Sub-catchment Overview – Sink Hole

The scope of works within this catchment includes the proposed building along with a carpark expansion to the south.

5.3.1 Proposed Stormwater Management Overview

The stormwater collection system that is proposed to outlet into the existing sink hole is made of the roof catchment of the proposed building along with the existing carpark, the proposed carpark extension, and southern grounds.

The carpark and grounds portion of the catchment are proposed to connect into the existing stormwater system that passes through the existing CDS unit prior to discharge.

The roof water has been considered clean and is proposed to discharge directly to the sinkhole where it will infiltrate into the ground.

5.3.2 Pre/ Post Development Comparison

The area attributed to the sink hole discharge is significantly increased due to the proposed diversion of rainwater from the building to the sink hole. Indication from council was that the sink hole has significant capacity in comparison with the bore 149. It is noted that the pre/ post development area only compares the immediate development area. When the surrounding catchment area attributed to the sink hole is considered, the increase in percentage is only a few percent as indicated by council.



Table 4 - Pre/ Post - Proposed Building and Southern Carpark Catchment Areas

PROPOSED BUILDING AND SOUTHERN GROUNDS	PERVIOUS AREA	IMPERVIOUS AREA	TOTAL AREA
Pre-Development	3500	7800	11300
Post Development	2400	16600	19000

5.3.3 On-Site Detention (OSD)

Given the capacity of the sink hole, OSD was not deemed necessary for the sink hole catchment.

5.4 Flooding

The proposed site does not fall into the flood prone area as determined by City of Mount Gambier. As such, there is no requirement for flood reporting or mitigation.



5.5 Stormwater Quality

EPA Guidelines for Stormwater Management in Mount Gambier outlines the Stormwater Quality requirements to be achieved by all proposed developments, presented below.

EPA Guidelines for Stormwater Management in Mount Gambier

Table 1 Stormwater treatment objectives

Pollutant	Stormwater treatment objective
Suspended solids (SS)	80% retention of the average annual load
Total phosphorous (TP)	45% retention of the average annual load
Total nitrogen (TN)	45% retention of the average annual load
Litter	Retention of litter greater than 50 mm for flow up to the 3-month average recurrence interval (ARI) peak flow
Coarse sediment	Retention of sediment coarser than 0.125 mm ¹ for flows up to the 3-month ARI peak flow
Oil and grease	No visible oils for flow up to the 3-month ARI peak flow

Figure 4 - Stormwater Treatment Objectives

The Stormwater Treatment for the proposed site has been developed to meet the targets above and includes the following:

- OceanGuards;
- PSorb Filters in Pits; and

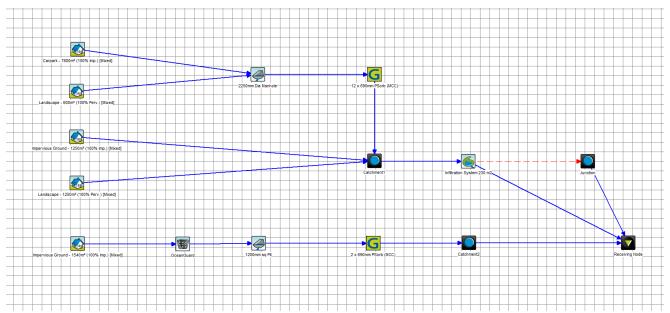


Figure 5 - MUSIC Modelling Parameters



A MUSIC model was developed incorporating the proposed Stormwater Treatment items above and the results are presented below. The following reductions were achieved for Gross Pollutants (GP), Total Suspended Solids (TSS), Total Phosphorus (TP) and Total Nitrogen (TN) which meet EPA Guidelines for Stormwater Management in Mount Gambier Objectives.

	Sources	Residual Load	% Reduction			
Flow (ML/yr)	3.24	3.24	0			
Total Suspended Solids (kg/yr)	976	133	86.4			
Total Phosphorus (kg/yr)	1.58	0.389	75.4			
Total Nitrogen (kg/yr)	7.63	4.14	45.8			
Gross Pollutants (kg/yr)	155	0	100			
Warning - upstream treatment train includes losses						

Figure 6 - MUSIC Modelling Results

The results presented above exceed the EPA Guidelines for Stormwater Management in Mount Gambier Stormwater Quality Targets for GP, TSS, TP and TN.

6 Erosion & Sediment Control

An Erosion and Sediment Control Plan has been prepared in accordance with Landcom's Soil and Construction manual (commonly known as the Blue Book), Volume 1, March 2004.

In accordance with Table 2.1 of the Blue Book an Erosion and Sediment Control Plan is required as the area to be disturbed is greater than 2,500m2.

The Erosion and Sediment Control measures have been designed to meet the requirements of the Blue Book, and the Contractor will be responsible for confirming the design and phasing the installation of the measures to suit the construction staging.

CITY OF MOUNT GAMBIER

COMMUNITY & RECREATION HUB

MARGARET STREET, MOUNT GAMBIER



DRAWING SCHEDULE					
NUMBER	REVISION				
	1				
PL-0000	COVER SHEET	PL03			
PL-1000	LOCALITY PLAN	PL02			
PL-1100	SITE PLAN - DEMOLITION WORKS	PL03			
PL-1200	SITE PLAN - NEW WORKS	PL03			
PL-2100	KEY PLAN - GROUND FLOOR	PL03			
PL-2101	KEY PLAN - FIRST FLOOR	PL03			
PL-4000	KEY ROOF PLAN	PL02			
PL-5100	KEY ELEVATIONS	PL03			
PL-5101	KEY ELEVATIONS	PL03			
PL-6100	KEY SECTIONS	PL03			
PL-8000	STORAGE SHED	PL02			
PL-9000	SHADOW DIAGRAM	PL02			
PL-9001	SHADOW DIAGRAM	PL02			



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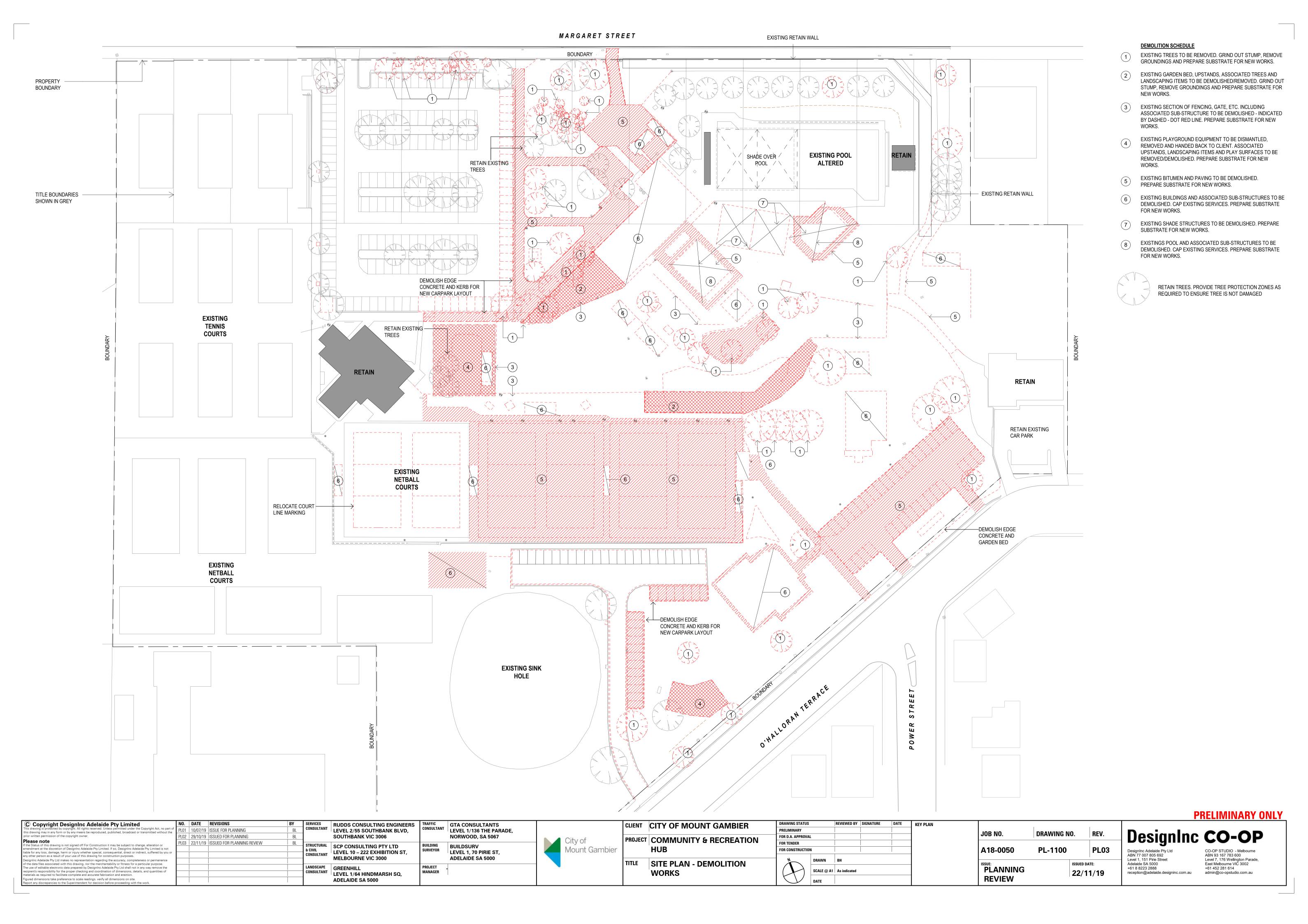
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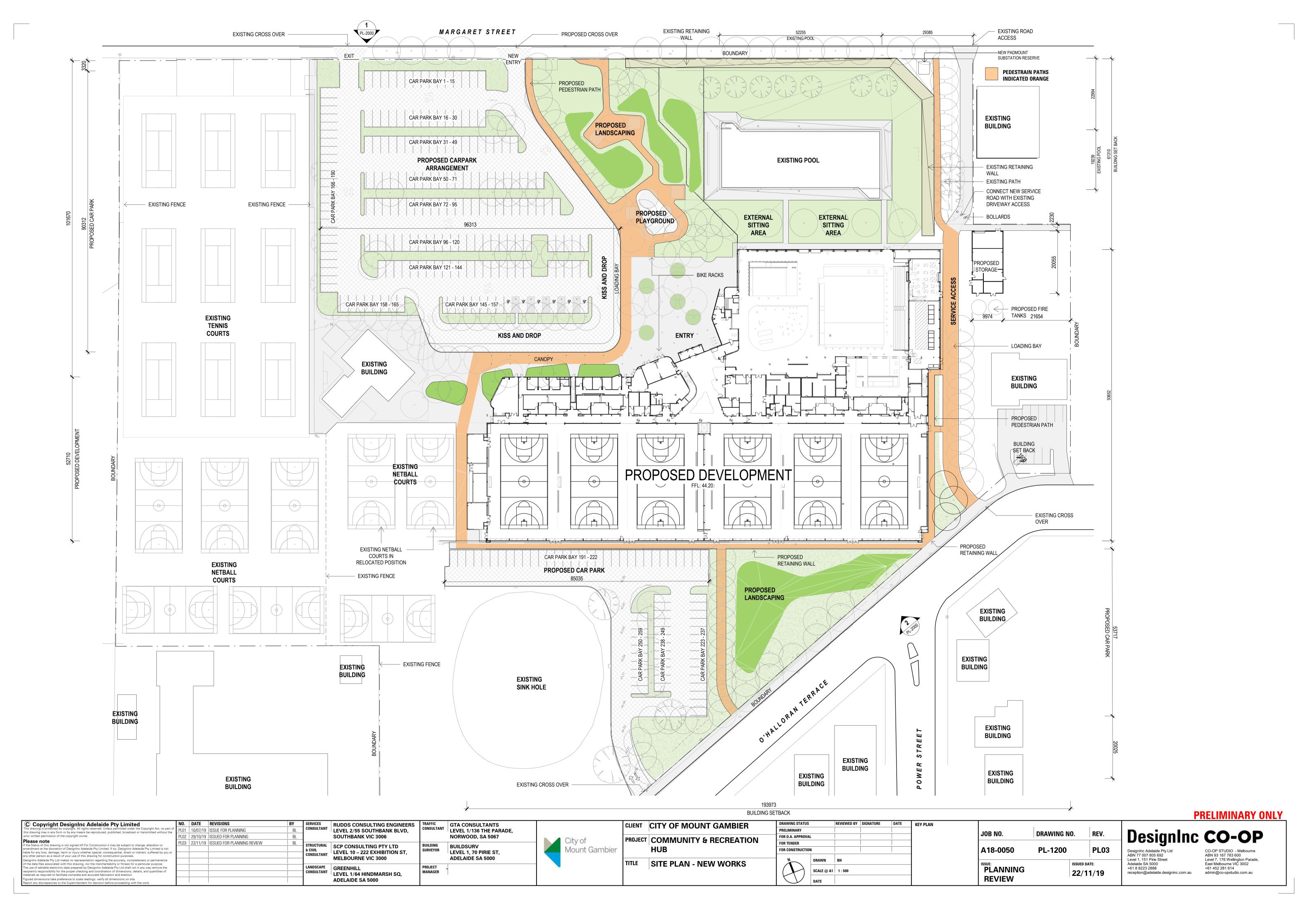
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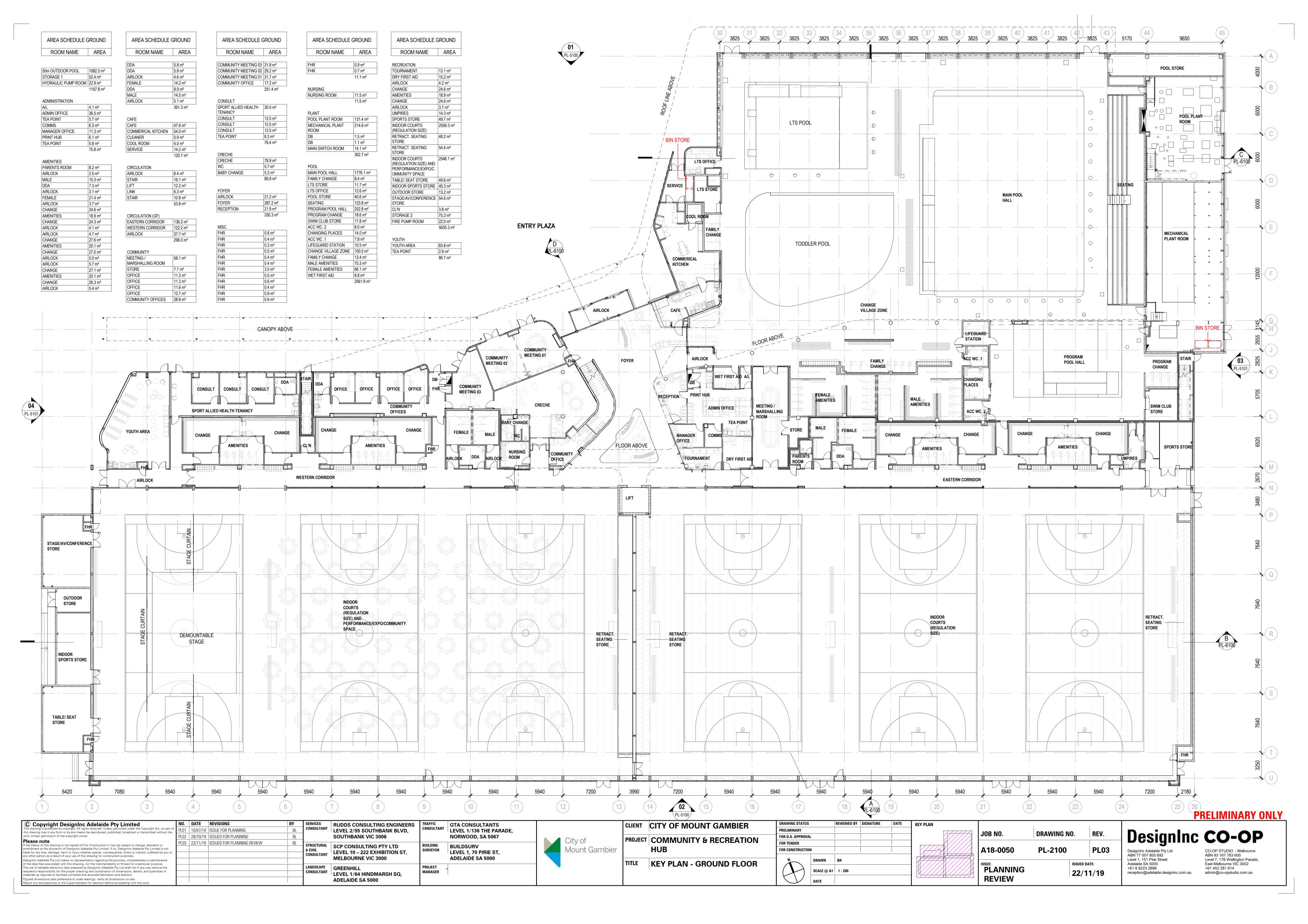


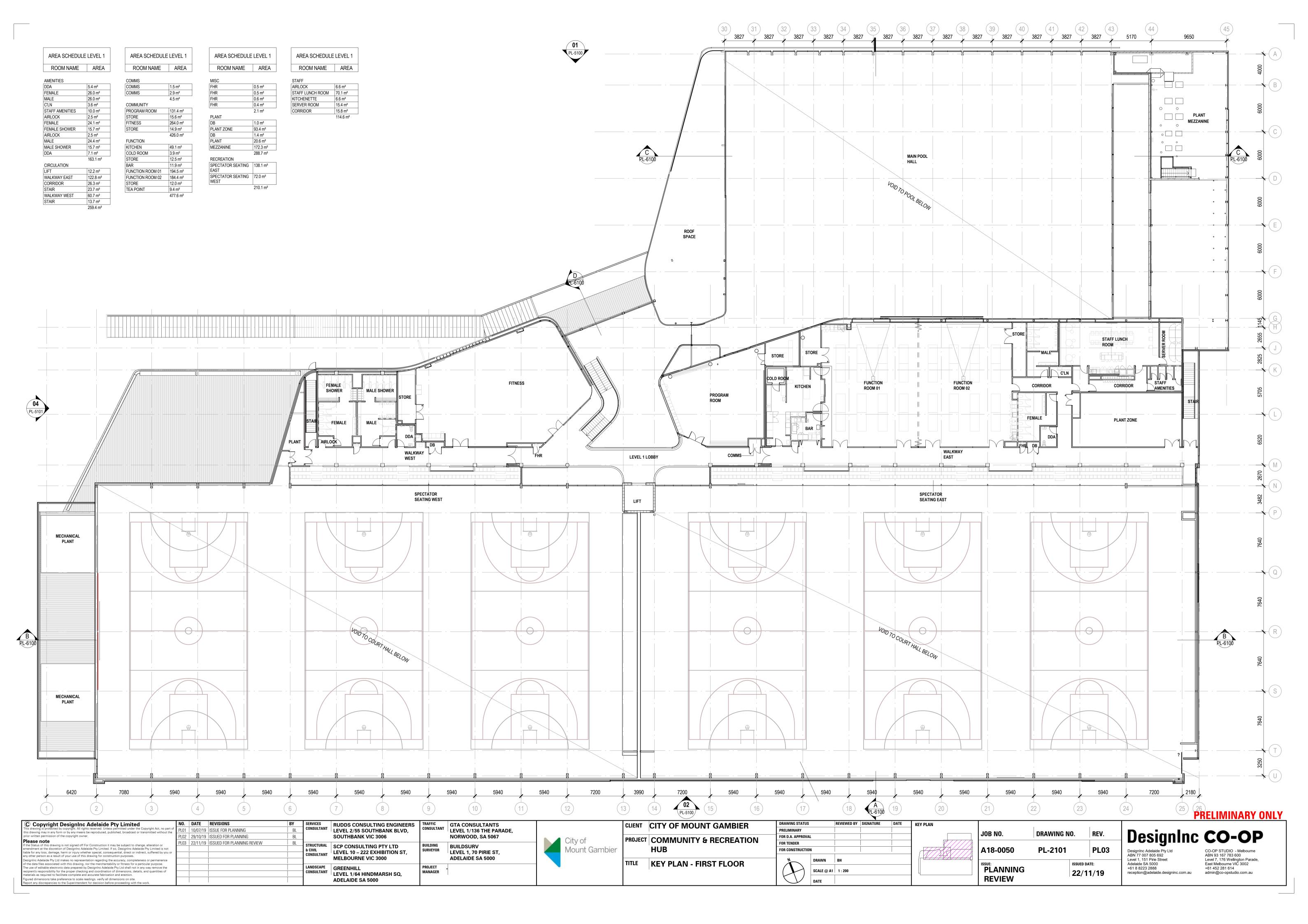
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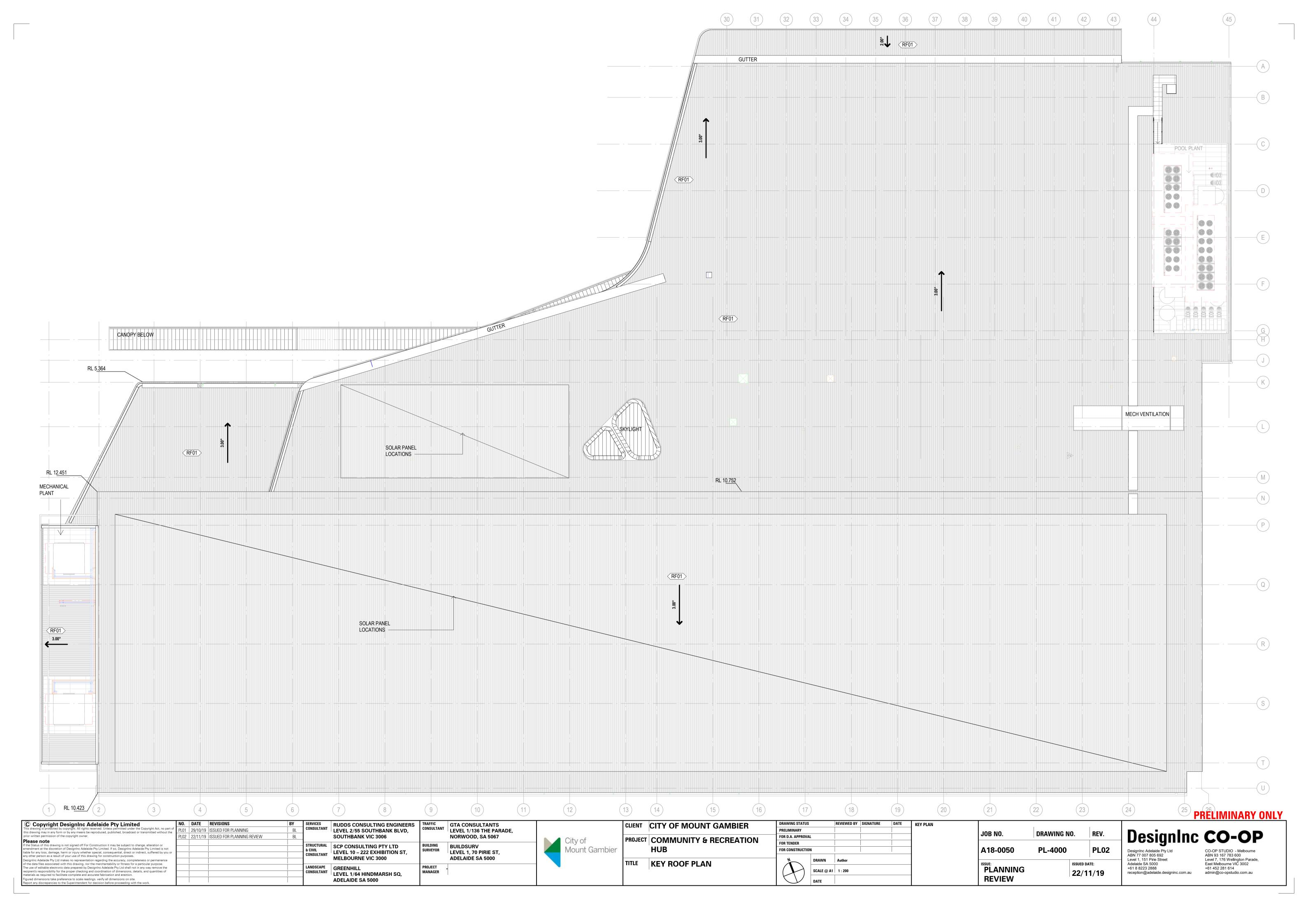
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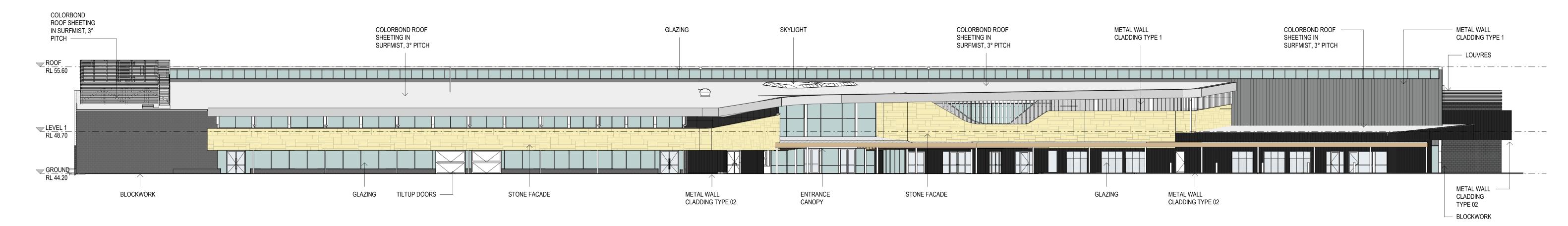




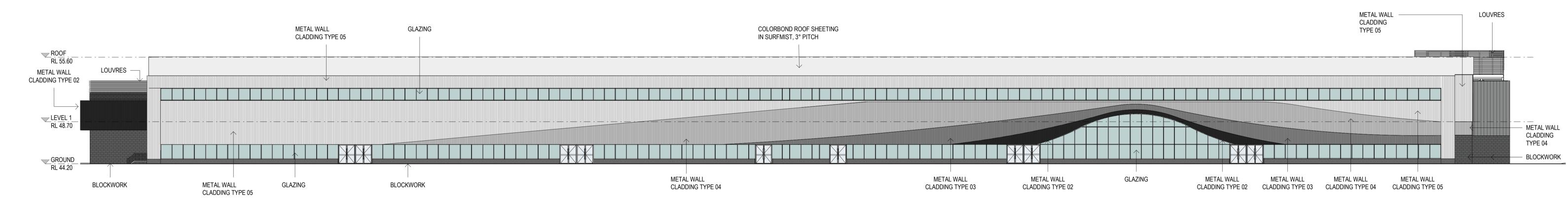








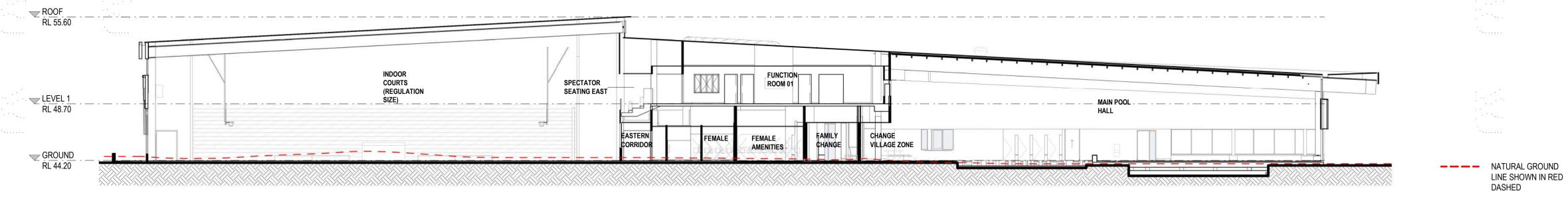
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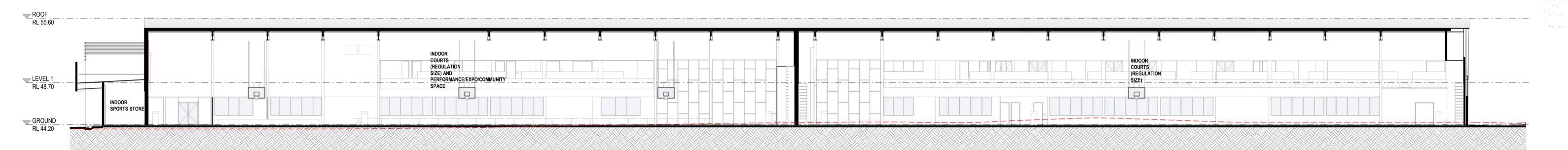
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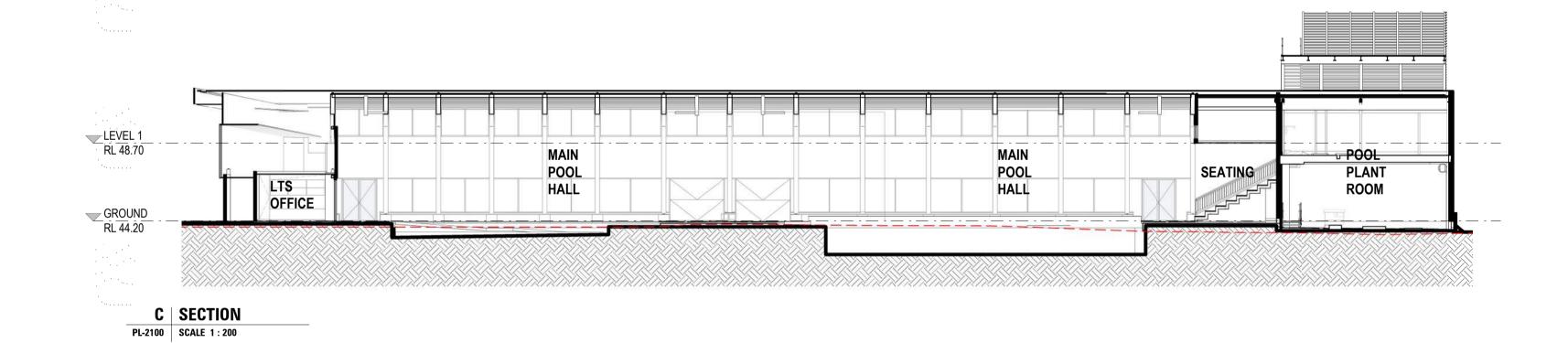
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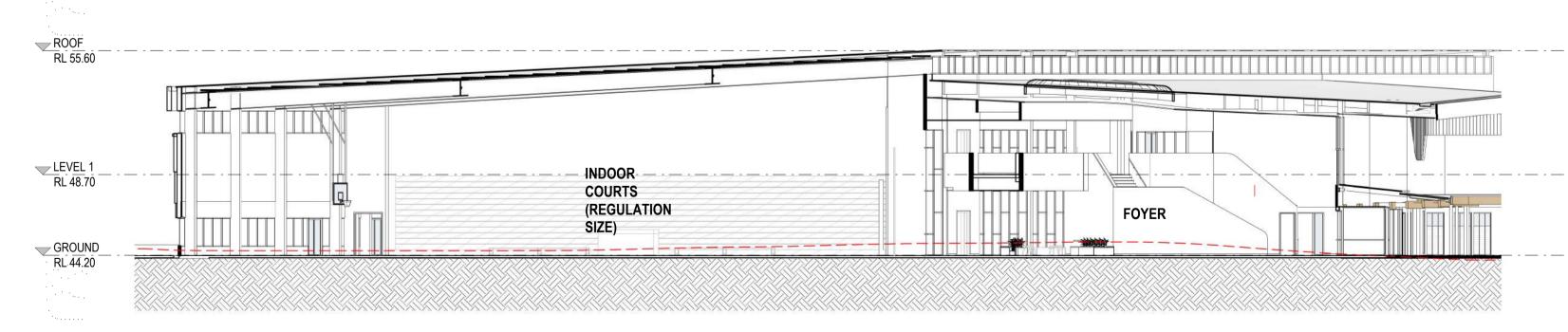


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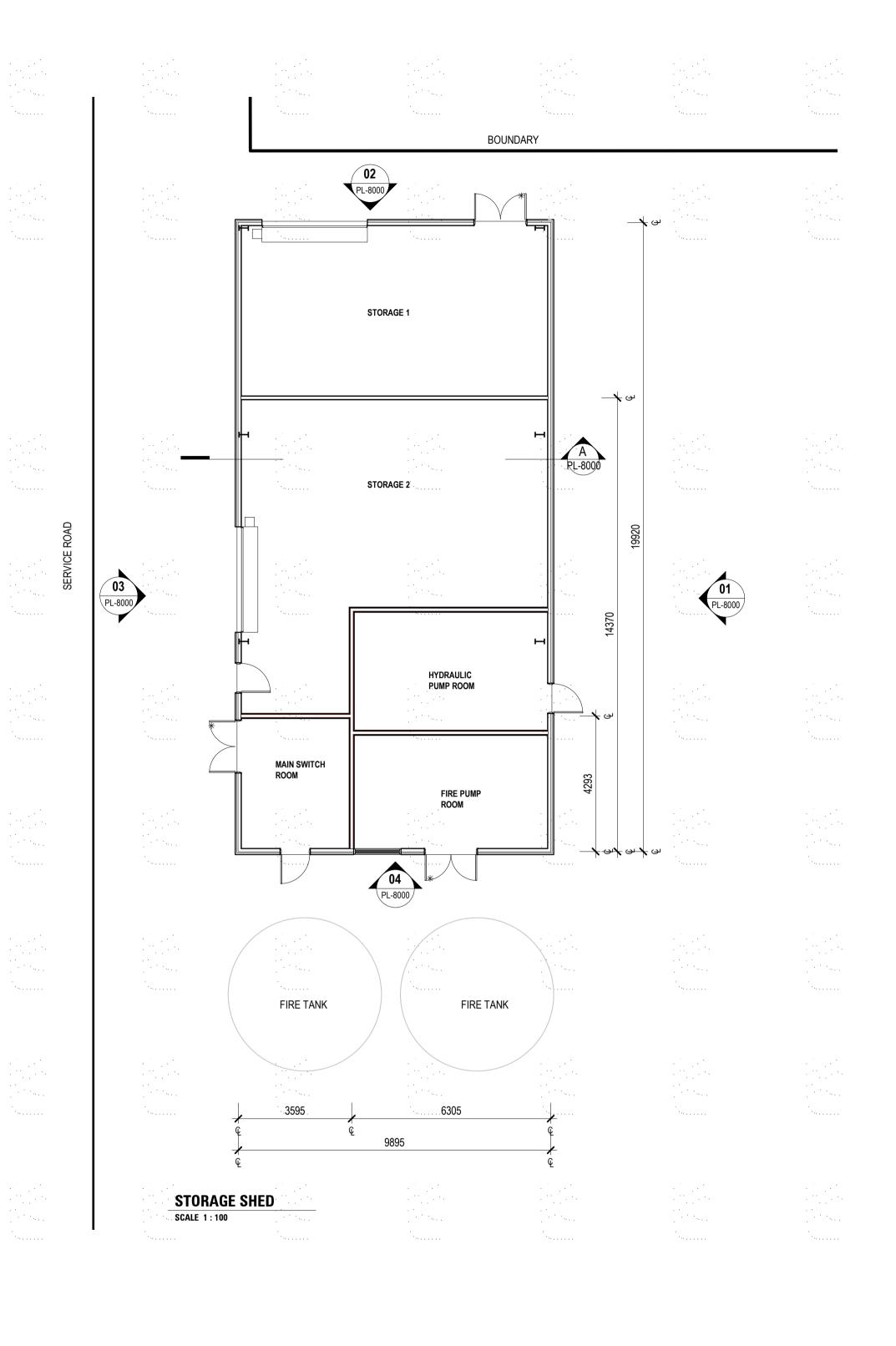


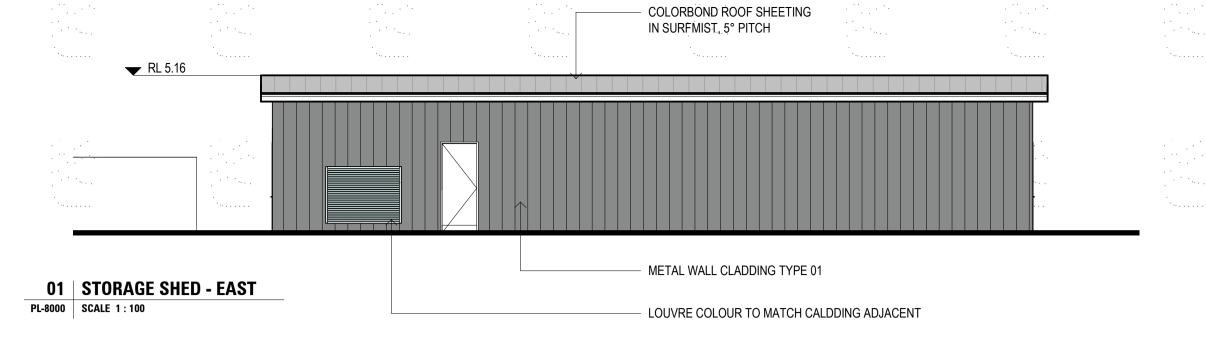


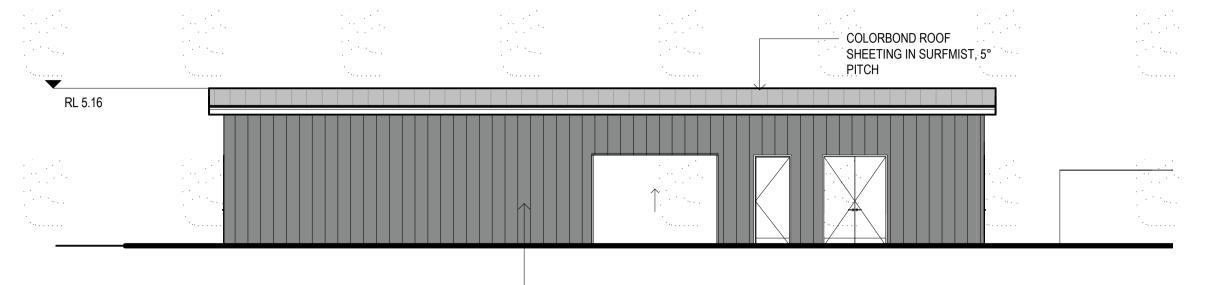
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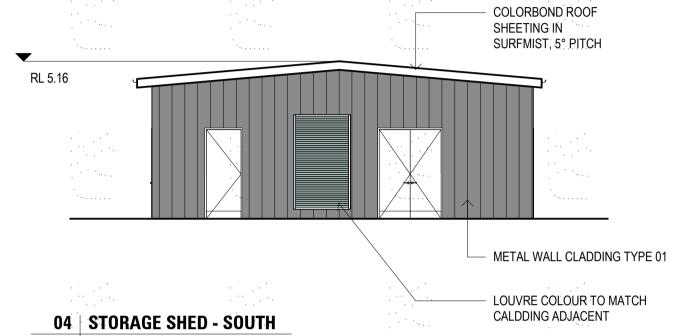


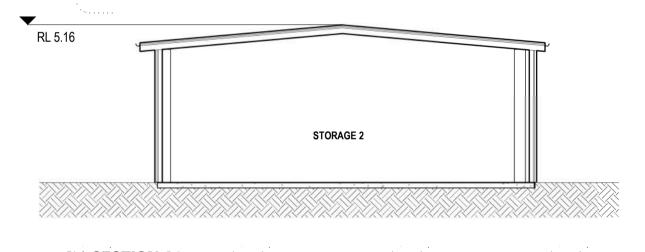
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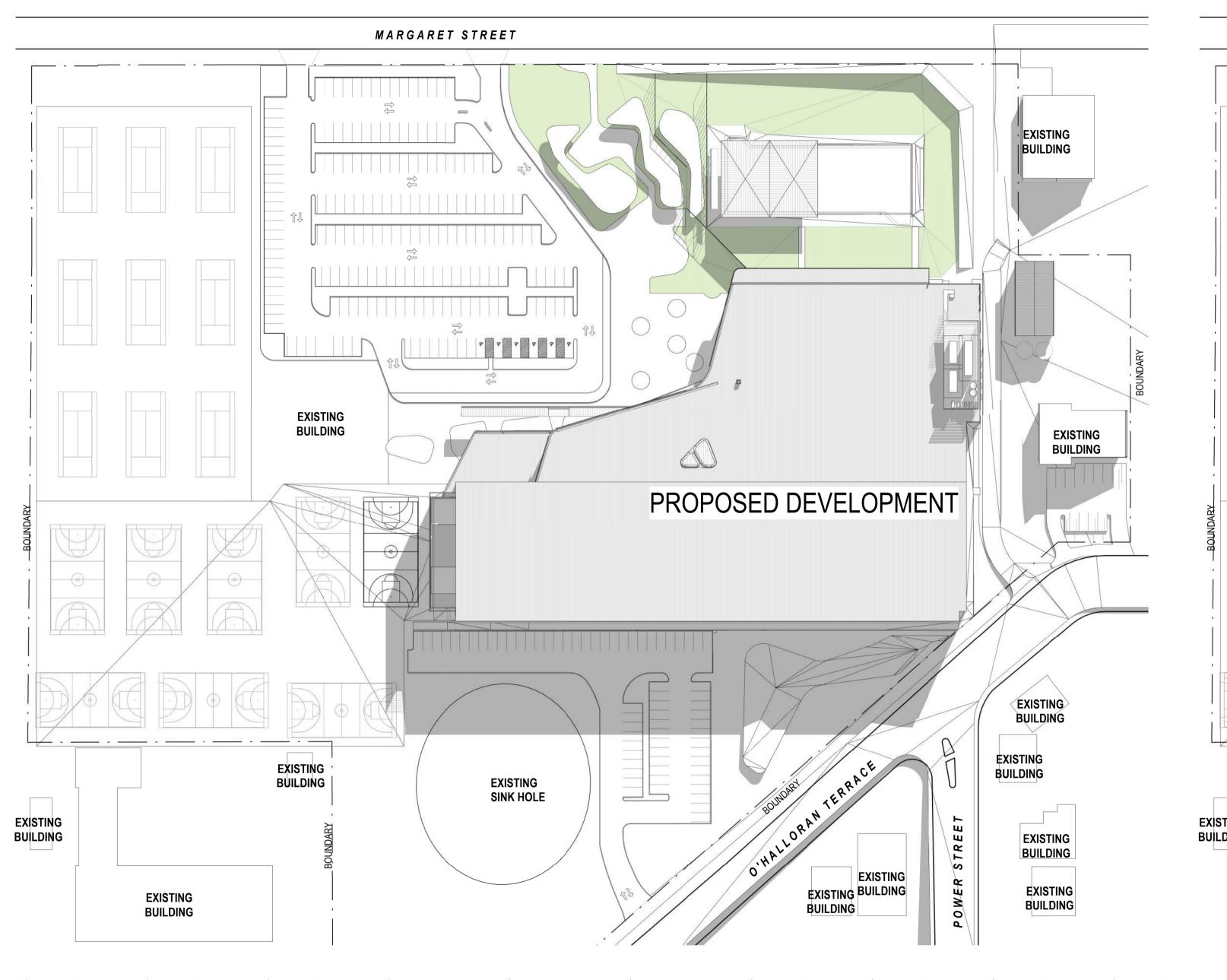


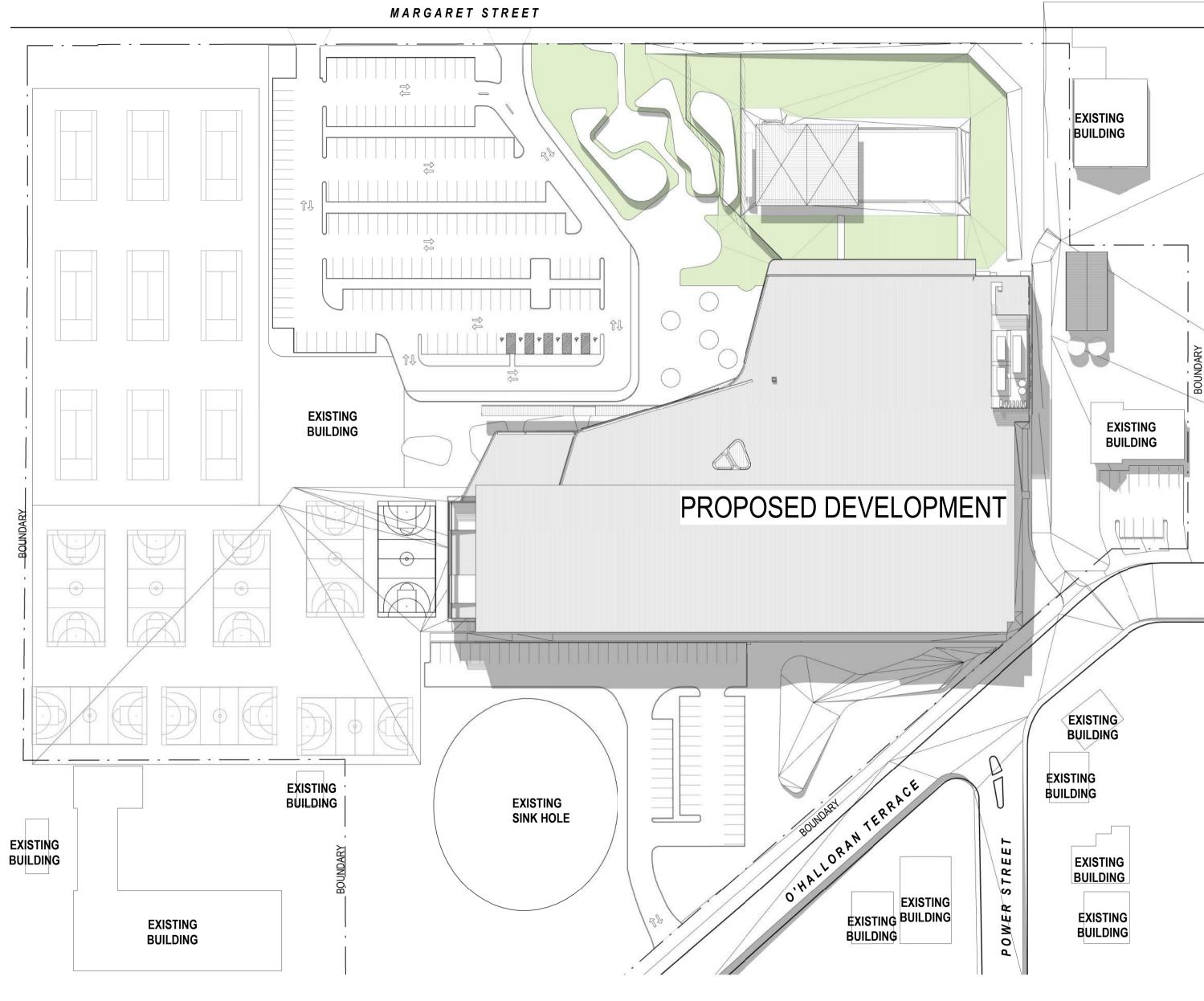


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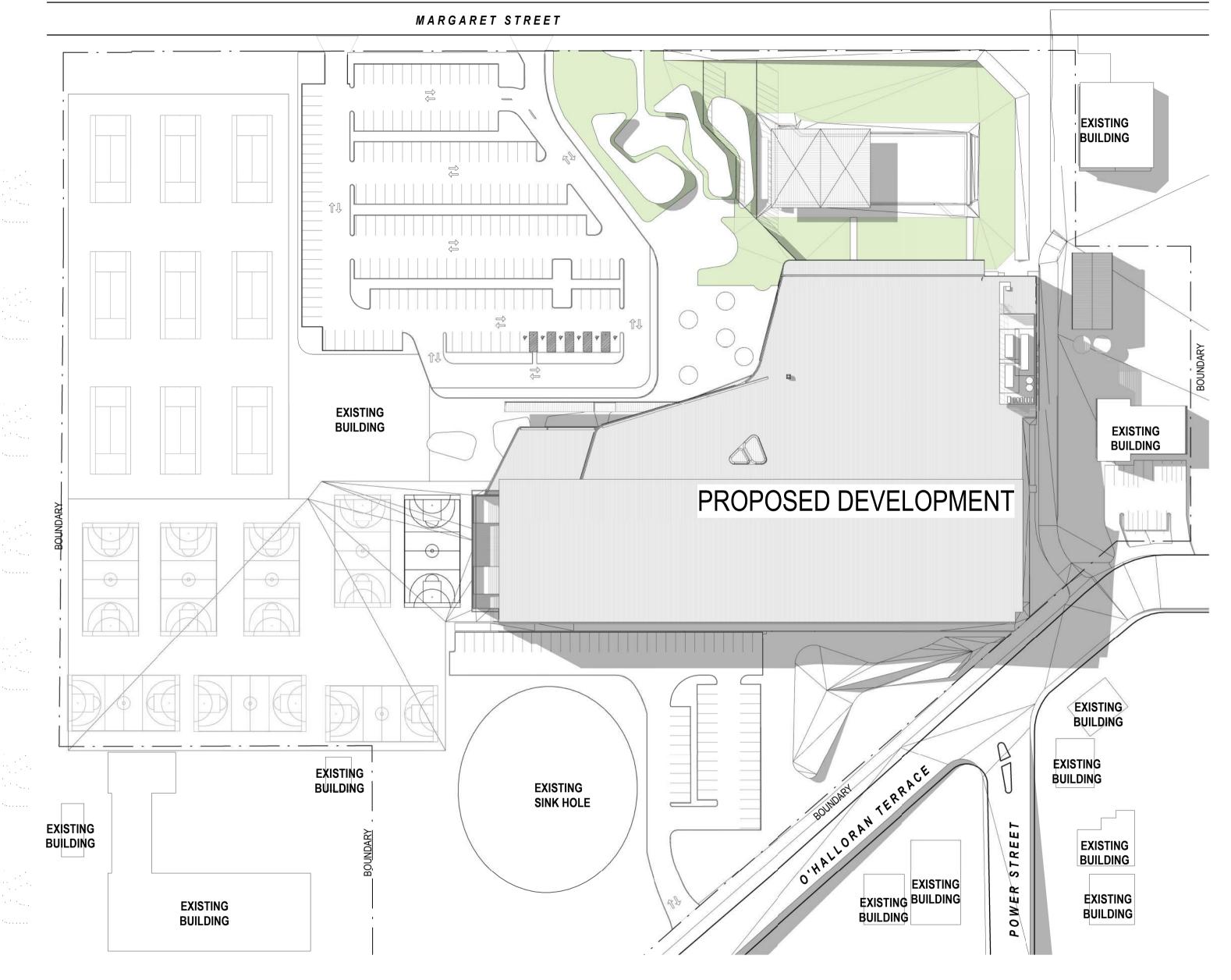




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City of Mount Gambier

Mount Gambier Regional Community and Recreation Hub

Supporting documentation for Development Application 381/E012/2019





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Appendix: Mount Gambier Regional Sport & Recreation Centre – Summary of Community Engagement AR19/3103



Development Application: 381/E012/2019

Project Title: Mount Gambier Regional Community and

Recreation Hub

Proposed Development: To demolish and remove existing landscaping

(including trees and garden beds), existing fencing, existing playground equipment and play surfaces, existing bitumised car parking areas, existing shade sails, two existing swimming pools and existing buildings associated with the aquatic centre complex, existing buildings associated with the Girl Guides, the Open Door Baptist Church and the Mount Gambier Netball Association; and to construct integrated multi-purpose an events/function community sport. recreation facility, with associated landscaping, car parking, retaining walls, playground areas

and a free standing storage facility.

Applicant: The City of Mount Gambier

Owner: The City of Mount Gambier

Location: "Olympic Park"

5a, 5b & 5c Margaret Street, Mount Gambier 10, 12, 14, 16 & 18 O'Halloran Terrace, Mount

Gambier

Executive Summary

The Community and Recreation Hub is to provide an all year round, multi purpose community and recreation facility that goes significantly beyond traditional sports centres by providing activities for people of all ages and abilities.

The design is envisaged as a true community hub that is multi purpose and supports a range of community, sporting and all weather uses in one central location.

This project is envisaged to deliver a facility that will increase our ability to:

- Provide significant social and economic benefits all year round, to the residents of Mount Gambier and the region;
- Host major state and national sporting competitions; and
- Host conferences, events and performances.



The proposed outcomes are:

To improve community wellbeing through:

- Increased engagement by all demographic groups;
- Improved health outcomes through mental and physical activity; and
- Year round facilities.

Retention and Attraction

- For youth across the region; and
- For the workforce and families.

Economic benefits

- Increased event tourism for sport and entertainment; and
- Job creation.

The Design is:

- A centrally located venue suitable for large conferences, events and performances for more than 1500 people;
- Community meeting rooms;
- Six courts in two banks of three, with different court surfaces allowing for alternative uses;
- All courts will be available for sports such as netball, basketball, indoor soccer, volleyball, badminton, tennis, bowls and a range of other recreational and fitness activities;
- One bank of three courts will be acoustically enhanced for entertainment purposes with a gantry for lighting and sound;
- Indoor climate change controlled aquatics facilities including a learn to swim pool, children's water splash/play area, a 25 metre compliant pool and a warm water program pool;
- Youth spaces, for programming and activities;
- Creche. Café, and office spaces for sporting groups, allied health;
- Disability ramp access to the pools, wide concourses and multiple disabled change facilities including a purpose built disability change room;
- Fitness spaces located on the first floor along with community and conference rooms overlooking the pools and courts;
- Mezzanine seating overlooking all courts;
- The existing 50 metre pool and grass surrounds will remain; and
- Increased car parking and undercover drop off areas.

The Cost of the proposed Community and Recreation Hub is:

Intermediate design costs \$39.1 million.



Contributions have been confirmed from:

Federal Government \$15 million
 State Government \$10 million
 District Council of Grant \$0.35 million
 Mount Gambier OSHC \$0.1 million
 City of Mount Gambier remainder

Additional costs are likely through additions to the scope during the design development with the actual costs to be determined through the tender process.

Associated projects within the same precinct include:

- 50m pool refurbishment;
- Sensory garden; and
- Tennis upgrade.

The Proposal

Mount Gambier (population 26,500) is a service centre for a broader regional catchment of approximately 66,683 people (2016). It is situated 435 kilometers from Adelaide and the nearest state public 'indoor sport and recreation centre' is located and 119 kilometers from a facility in Victoria at Portland. The climate in Mount Gambier during winter is cold, with July mean maximum daily temperature of 13.2C and mean monthly rainfall of 100.2 ml, which limits outdoor recreation and event opportunities.

Mount Gambier is the largest city in South Australia outside of Adelaide and has a diversity of services acting as a drawcard for the surrounding regional towns. It is predicted that for Mount Gambier, the proportion of the population over 65 years will increase by 31.5 per cent over the next ten years to form around 22 per cent of the population by 2026. This will have implications for labour force participation and the future workforce in Mount Gambier, but will also create opportunities in terms of attracting tourists, investment and people, based on the region's lifestyle and affordability. Providing appropriate infrastructure that meets the needs of an evolving community will be important to maintain regional viability.

The City of Mount Gambier proposes to build an integrated multi-purpose community sport, events/function and recreation hub that will provide a year round focal point for the next 40-50 years in the region.

The proposed Community and Recreation Hub will include the following facilities and amenities:

- A centrally located venue suitable for large conferences, events and performances for more than 1500 people;
- Smaller conference / meeting rooms;
- Six courts in two banks of three, with different court surfaces allowing for alternative uses:
- All courts will be available for sports such as netball, basketball, indoor soccer, volleyball, badminton, tennis, bowls and a range of other recreation and fitness activities;



- One bank of three courts will be acoustically enhanced for entertainment purposes;
- Indoor climate controlled aquatics facilities include a learn to swim pool, children's water splash/play area, a 25 metre pool and a program pool;
- Youth spaces for programming and activities;
- Creche, café, and office spaces for sporting groups and allied health;
- Disability ramp access to the pools, wide concourses and multiple disabled change facilities including a purpose built disability change room;
- Fitness spaces located on the first floor along with community and conference rooms overlooking the pools and courts;
- Mezzanine seating overlooking all courts; and
- The existing 50 metre pool and grass surrounds will be refurbished and form part of an integrated recreation precinct.



Background

The City of Mount Gambier has embarked on a program of identifying and pursuing economic and community development opportunities through a process that distilled recommendations from numerous strategic reports. Securing a strong evidence base for action to build the economy and create jobs in areas of competitive strength has been a focus over several years. Development of a state-of-the-art community recreation and events/function facility is considered to be a major enabler for a range of community objectives.

The lack of a regional indoor year round facility for aquatics and indoor sports has limited the participation and growth of sporting activities in the region, with consequent issues relating to a greater propensity for residents, especially young adults, to adopt sedentary lifestyles. Existing facilities are limited in size and function (including disability access), are geographically dispersed and most are nearing the end of their functional lives. Further, the lack of high quality indoor facilities has limited the pathway to more elite level participation amongst participants in local indoor sports.



In addition to recreation facilities, the population demographic has identified a need for other engagement spaces to provide different sectors of the community with an opportunity to be more active and connected. For example, the ageing population and the growth in single person households is leading to increases in social isolation, while there is also a great demand for community activities for younger people. Together, this creates an increasing demand for opportunities for social activities and meeting/activity spaces, which current dispersed facilities cannot provide.

There is strong alignment between City, Regional, State and Federal Government policy frameworks to promote economic development through regional attractiveness for retention and attraction of skilled workers, social inclusion, youth engagement and health and community well-being.

The matter of an indoor aquatics centre and more recently an indoor community recreation and events/function centre has been 'on the agenda' in Mount Gambier for decades. With each re-emergence of the issue more voices have contributed to the debate and the depth of knowledge has increased. Knowledge about:

- the needs that a proposed facility would address;
- the potential benefits to the region;
- the capital and operational costs for Council and the community, and
- the depth of the community support for the project.

This has enriched the proposal for development. Importantly, the community of Mount Gambier has been at the forefront of pushing for this project to come to fruition. Through public meetings, petitions, being members of reference groups, meeting with architects to inform design, promoting and informing the community of features and functionality and ensuring that as many sectors of the public as possible were provided an opportunity for input, the community had a strong voice. The Council has also engaged with a diverse group of sporting bodies at regional, state and national levels to ensure that a high level of awareness by stakeholders was achieved.

Key Aims

As highlighted in Council plans there are number of key economic and wellbeing issues that the Council has identified as priority areas. The new Hub will assist in addressing issues of:

- Workforce attraction and retention for economic growth;
- Obesity (current levels in Mount Gambier and surrounds are higher than regional SA averages);
- Providing further activities for disadvantaged (pockets of disadvantage exist as indicated in part by the wide variation in SIEFA index scores across the council area and wider region);
- Growing social isolation associated with an increasing age structure and growing lone person household type;
- Lack of available facilities in winter for casual recreation;
- Providing additional positive activities in response to a high percentage of disengaged youth in many precincts in the region (Mount Gambier Central North, Central, East and



West are higher than regional SA averages);

- Loss of youth 18-24 to other regions. (18-24 age group represents the highest net loss age cohort of population in 2011-2016);
- Providing recreational and leisure opportunities for the increasing older population group (over 65's is the fastest growing age group in Mount Gambier);
- Maintaining ageing and no longer fit-for-purpose assets; and
- Current and projected demand pressures for aquatic and indoor sports.





Expected Outcomes

The proposed Community and Recreation Hub will contribute to regional resilience by building capacity through improved productivity, liveability and connectivity. There is a strong alignment between social and economic strategies being pursued by the City of Mount Gambier with quality community infrastructure being a critical enabler for this vision. This will be achieved by:

- 1. Attracting and retaining a skilled and flexible workforce to support a stronger economic base:
- 2. Valuing the strong sense of community spirit and regional identity;
- 3. Providing greater employment, recreation and other opportunities to retain young people; and
- 4. Supporting the development and maintenance of social and community services and facilities, including sporting, education, health, recreational and other facilities to service the local population.

The Limestone Coast has difficulty in attracting and retaining professionals (in particular doctors), other skilled workers and their families, similar to many other regional locations. In part, the lack of year round facilities that provide opportunities for recreation activities impacts adversely on liveability and the attractiveness of a region. With dedicated spaces for youth engagement activities, together with opportunities for part time work, the facility can contribute to ultimately retaining youth in the community to provide the future workforce and provide professionals with families who move to the region with a richer community experience. This may alleviate costs associated with the revolving door of recruitment, relocation and gaps in service delivery that occur each time a family leaves at the end of an employment contract. The costs associated with going through the recruitment cycle creates a significant burden on businesses and discourages growth when staff continuity and availability is a factor in business planning. A more active lifestyle can also reduce costs of absenteeism.

The region has a number of ageing facilities that have been adapted over time with the adaptations often being organic rather than mindful of best practice facilities or future needs. The costs of utilities for these older facilities is a burden on sporting club resources that are accumulated through registration, volunteering and game player fees. The economic opportunities of consolidating multiple users on one site is more compelling when multiple sporting facilities come to tipping points in facility lifecycles. For such facilities further development requires significant investment with benefits flowing to one sport rather than potentially many in one consolidated facility. The opportunity of attracting talented coaches to a premium facility also serves as an attraction to new players adding to sporting group viability.

The proposed facility will also provide economic benefits in the form of sport, event and conference tourism. The facility will fill a gap in the current market for conference and event facilities with the potential to host activities for up to 2,000 people. Currently organisers need to use multiple locations that are not serviced by public transport and have significantly more logistical and organisational costs.

Mount Gambier has a diversity of services acting as a drawcard for surrounding regional towns. The comparative economic advantage of businesses in Mount Gambier will continue to shift dramatically over the next decades, with a shift away from manufacturing to a service and knowledge based economy to a focus on tourism, business services, education and health services.



Site and Ownership Details

The proposed site is located with the existing Aquatic Centre Complex bounded by Margaret Street to the north and O'Halloran Terrace to the south - east and located within the Central Business District of Mount Gambier. The subject land is located within the Recreation Zone and is directly adjacent to the Commercial, Mixed Use and City Centre Zone. Portion of the subject site is owned by the City of Mount Gambier, with the majority of the site being Crown Land with the care and control of the land being the responsibility of the City of Mount Gambier. Copies of the Certificate of Title are attached to this letter for your information and perusal.

Location Name	Latitude	Longitude	Title Details	Address
Olympic Park	-37.83304	140.77627	Vol. 5874 F 335	5A Margaret Street Mount Gambier SA. 5290

Proposed Solution

The project design is well underway with a detailed design brief attached, which is to be endorsed by Council. The report contains the detailed design proposal from which the specifications enabling the preparation of tender documents will be prepared. Also attached plans and site information as at July 2019 that are being further developed from intermediate plans.

Financial Information

The importance of assessing social benefits in addition to the economic benefits of any community infrastructure is particularly relevant to the proposed Community and Recreation Hub. A year round recreation hub will generate health and wellbeing benefits to the community through a mix of measurable and non measureable, direct and indirect factors. It is clear that users of recreation facilities are more likely to be part of healthier communities, be fitter, stronger, less prone to illness, more confident and engaged and contribute to the social capital of the community. Government, through investments of public money for the community also accrue indirect benefits through increased productivity and reductions in health spending. There are however significant challenges in identifying, measuring and assessing qualitative benefits.

The following table provides a high level summary of the capital costs and sources of funding for the Mount Gambier Regional Community and Recreation Hub. Attached is a report prepared by consultants BRM Holdich that details projected measurable revenues, operating costs and the potential impact on Council's long term financial position as submitted to the Commonwealth Government in November 2018. The City of Mount Gambier is in a strong financial position with current low levels of borrowings supporting the ability to manage any commitments that may arise from building and operating the proposed Community and Recreation Hub.



Funding Source	\$ 000	\$ 000	Notes
Regional Growth Fund -		\$15,000	\$15 million Deed signed and project
Commonwealth Government			commenced 1 April 2019.
			Milestone 1 Project Reporting for the period
			April - June 2019 has been completed and
			approved.
State Government		\$10,000	Confirmed by the Premier 18 January 2019 in
			a Media Release.
Council			
- Internal	\$1,391		From Council capital budget
Infrastructure spending			
 Cash and borrowing 	\$12,375		
District Council of Grant	\$350		Cash Contribution
		\$14,116	Council Capital contributions
Total Project Cost		\$39,116	

Economic Evaluation

A Business Case report was submitted to the Office of Recreation and Sport in December 2018. The report is attached. Though the need to submit information to State and Commonwealth Governments had different timelines and specified template requirements, there was a degree of commonality in the information. Where further development has changed the details presented in the Business Case Report, the information has been revised. This information is presented in the following tables.

Impact Summary										
Limestone Coast region - Modelling the effe Inflation adjusted	Limestone Coast region - Modelling the effect of adding \$40.0m sales in Building Construction - Inflation adjusted									
Summary	Output (\$m)	Value-added (\$m)	Local jobs	Residents jobs						
Starting position Limestone Coast region (year ended June 2016)										
Building Construction	202.59	41.62	613	630						
All industries	6,456.13	3,033.63	30,100	31,198						
Impacts on Limestone Coast region economy										
Direct impact on Building Construction sector	40.00	8.22	121							
Industrial impact	36.94	13.44	149							
Consumption impact	6.07	2.64	36							
Total impact on Limestone Coast region economy	83.01	24.30	306	302						
Type 1 multiplier (direct & industrial)	1.92	2.64	2							
Type 2 multiplier (direct, industrial & consumption)	2.08	2.96	3							
Impact on Australian economy										



Total impact outside Limestone Coast region	33.57	14.11	109	115
Total impact on Australian economy	116.59	38.41	415	416

Source: National Institute of Economic and Industry Research (NIEIR) © 2016. Compiled and presented in economy.id. Note: All \$ values are expressed in 2014-15 base year \$dollar terms.

Impact Summary				
Limestone Coast region - Modelling the effect - Inflation adjusted	t of adding 21	. jobs in Sports a	nd Recreat	ion Activities
Summary	Output (\$m)	Value-added (\$m)	Local jobs	Residents jobs
Starting position Limestone Coast region (year ended June 2016)				
Sports and Recreation Activities	17.68	8.66	137	155
All industries	6,456.13	3,033.63	30,100	31,198
Impacts on Limestone Coast region economy				
Direct impact on Sports and Recreation Activities sector	2.70	1.32	21	
Industrial impact	1.42	0.67	8	
Consumption impact	0.43	0.20	3	
Total impact on Limestone Coast region economy	4.56	2.19	32	31
Type 1 multiplier (direct & industrial)	1.53	1.51	1	
Type 2 multiplier (direct, industrial & consumption)	1.69	1.66	2	
Impact on Australian economy				
Total impact outside Limestone Coast region	2.52	1.02	9	9
Total impact on Australian economy	7.07	3.22	40	40

[Source: National Institute of Economic and Industry Research (NIEIR) ©2016. Compiled and presented in economy.id. Note: All \$ values are expressed in 2014-15 base year dollar terms].

Project Program

Council staff have been working with architects to finalise the detailed specifications necessary to progress the construction tender requirements. Noted below are the Milestone reporting dates established for each of the government funding Deeds.



Commonwealth Government Milestone Dates							
	Milestone	Anticipated Dates	Amount	GST	Total		
1	On acceptance of Progress Report 1	29 July 2019	Nil		Nil		
2	On acceptance of Progress Report 2	11 December 2019	1,500,000	Nil	1,500,000		
3	On acceptance of Progress Report 3	12 May 2020	1,500,000	Nil	1,500,000		
4	On acceptance of Progress Report 4	12 October 2020	3,000,000	Nil	3,000,000		
5	On acceptance of Progress Report 5	11 January 2021	2,250,000	Nil	2,250,000		
6	On acceptance of Progress Report 6	10 July 2021	2,250,000	Nil	2,250,000		
7	On acceptance of Progress Report 7	11 January 2022	3,000,000	Nil	3,000,000		
8	On acceptance of Progress Report 8	16 May 2022	1,500,000		1,500,000		
			\$15,000,000		\$15,000,000		

State Government Reporting Milestones - SA Government Financing Authority							
	Milestone	Anticipated Dates	Amount	GST	Total		
1	On acceptance of Progress Report 3	12 May 2020	1,000,000	Nil	1,000,000		
2	On acceptance of Progress Report 4	12 October 2020	2,500,000	Nil	2,500,000		
3	On acceptance of Progress Report 5	11 January 2021	3,000,000	Nil	3,000,000		
4	On acceptance of Progress Report 6	10 July 2021	3,000,000	Nil	3,000,000		
5	On acceptance of Progress Report 7	11 January 2022	500,000	Nil	500,000		
			\$10,000,000		\$10,000,000		

Also attached are the timelines supporting the detailed specification stage that architects, in partnership with Council officers, are currently working towards. The proposed detailed construction schedule will be determined with the head contractor upon appointment. The project construction is anticipated to take 15 months and to be completed by December 2021.

Project Procurement Implementation methodology/Procurement Plan

The procurement process for the appointment of Architects and the Quantity Surveyor involved a 2 stage process with the second stage triggered by advice of successful Regional Growth Funding from the Federal Government. This was officially received in March 2019. The procurement process has meant that both external agencies were available to commence the next stage of documentation without having to re-tender.

An experienced project manager will be appointed to oversee the project during the construction and commissioning phases. A detailed implementation plan as a Gantt Chart for the build process has been prepared by Council's engineering department and is attached as Appendix B. The chart identifies key steps and timelines in the build process with a commencement date of 1 July 2019 for Council preconstruction works.

An implementation plan will also require consideration of numerous other issues that local government operations typically require and these will be on going during the construction process. The broad user related implementation plan issues are:

Ongoing community engagement;



- Liaison with user groups in particular netball, who will lose three outside courts during construction and then have access to more than three indoor courts upon completion of the facility;
- Ongoing liaison with state and regional sporting associations to secure training camps, championships and carnival scheduling in the new facility;
- Building commissioning;
- Commissioning of technical and operational equipment;
- The development of processes and procedures for the operation of equipment;
- Policies for scheduling and programming to ensure equitable use and access of facilities;
- Specialist software for operational and data needs;
- Staff recruitment, employment, induction and training;
- Consideration of specific requirement for food handling, hygiene and public health concerns;
- Child safety in physical spaces and crèche operating requirements;
- Security and access controls;
- Storage facilities and access; and
- Leases and licensing agreements with prospective users.

These issues are linked with building features and fittings in many instances and require consideration to ensure that high utilisation of spaces is encouraged through positive user experiences. The proposed operating model is yet to be determined.

Project Management

Whilst the Council has some internal expertise, for a project of this scale it have been mindful of the complexities that such a major infrastructure project will necessarily involve and the potential challenges for appropriately resourcing the project through all stages of development.

To date, the Elected Members have provided guidance on the scale of the project they proposed. This was required to future proof needs for next 40 years/ Grant writing has been completed in-house by Council officers with the assistance of external consultants as required. This has included a detailed risk analysis, cash flow and revenue modelling, budget forecasting, extensive community consultation processes, stakeholder workshops and meetings, ensuring that specifications match the level and scale of proposed uses and project support.

The Project Risk Management and Evaluation Plan was updated in July 2019 and is attached for information. In addition a diagram of the management and reporting structure for the Community and Recreation Hub is attached.



The consultants used to date are summarised in the table below and will be expanded as needed during the construction phase.

Consultants	Stage of development	Tasks	
Simply Great Leisure	EOI	Aquatics projected revenues and expenses	
Dash Architects	EOI	Concept Plan	
BRM Holdich	Stage 1 & 2	Business Case, Financial Modelling and independent tender evaluation	
XLR8 Consulting	Stage 1	Office of Recreation and Sport - Business Case	
Design Inc Co-Op Studio	Stage 1 & 2	Intermediate and final design and specification	
Rider Levett Bucknall	EOI and Stage 1 & 2	Intermediate and final design and specification	
Norman Waterhouse Stage 2 & 3		Grant Deeds and contract advise for the management model and the head contractor	
Mellor Olsson	Stage 3	Tenancies and leases re community groups	

Ecologically sustainable development strategies

The design intent of the development is to aim for significant cuts in both water and energy use and to improve the sustainability credentials compared with the existing facilities. The existing facilities present both constraints and opportunities for responsible and leading sustainable design.

The following summary presents the proposed sustainability initiatives that can be incorporated into each part of the development.

Daylighting

Daylighting is a crucial part of healthy indoor environments. Effective natural lighting improves light quality and reduces lighting energy requirements. Where artificial lighting is required, the use of high efficiency LED lighting and light sensor controllers minimise energy usage. External views also help to create a better visual connection to the outdoor spaces. Strategies to assure effective natural lighting proposed for this development are:

- Efficient glazing and façade design to maximise internal daylight levels;
- External shading design that reduces heat loads due to direct solar radiation while maximising internal daylight level;
- External shading design that reduces or eliminates glare. Glare can be a significant problem for life guards;
- Design of light-shelves (in combination with external shading) to reflect daylight deeper into internal spaces;
- Installation of skylights or light tubes for spaces that have limited access to façade glazing;
- It is important to coordinate daylighting with any obstructions to light such as roof structure or ductwork; and



 Current design of both the multipurpose spaces and the aquatic centre reduces full height glazing in preference for both ground level glazing and high level glazing. This balances visual connection and views across the precinct and good internal light quality with reductions in heat gain and heat loss.

Pool Shell Insulation

While the majority of heat from the pools is lost through the water surface, a considerable amount of heat loss also occurs through the pool shell. The ground adjacent to the shell typically has a constant temperature of approximately 17°C and continues to draw heat out of the pool irrespective of the ambient conditions. Consideration will be made to ensure as high levels of pool shell insulation as possible to make significant savings in energy loss.

Rigid closed-cell foam board or polystyrene board insulation with an R-rating of 1.0 is usually recommended for the pool walls as well as the base slab and is planned for this development.

Heat Pumps

It is currently proposed that the systems used in the facility will use a heat pump system for the aquatics portion of the development. A heat pump works like a refrigerator or air conditioner. Refrigerant is used to remove heat from one area and to transfer this heat to another area. In the case of a pool heat pump, the very cold refrigerant absorbs heat from the air and transfers this heat to the pool water. If the air temperature is very warm more heat is absorbed and more heat is transferred to the pool water.

Heat pumps should be rated at an average air temperature of 15°C and a pool temperature of 27°C. This is most indicative of pool heating needs in Australia at the time of the year when pool heating is really needed. At these temperatures, heat pumps can produce over four times more heating than the power consumed. If running off the power supplied by cogeneration, the heat pump can be even less carbon intensive making significant energy reductions for Council.

Solar Photovoltaic (Pv)

Photovoltaic Solar cells generate electricity as either discrete roof mounted panels or Building Integrated Photovoltaic (BIPV) systems. Given the significant amount of available roof space, solar panels will be investigated for their feasibility at this site. In the last 12 months the price of PV panels has dropped substantially, making them a viable and attractive source of renewable energy.

The cost effectiveness of PV's will be further enhanced as used on such a large area they will effectively be used as shade structures over the building roof reducing heat gain from the roof surface. Currently the design and cost planning has allowed for structural design for the full roof area sufficient to install PV cells to the majority of the roof. Council has committed to direct their annual solar PV budget to this building for the preceding years to ensure that the facility can make best of the significant roof area.

The Council is also considering a once-off investment to provide energy security as an alternative to deliver significant PV capability and capacity at an early stage to assist with energy price security and a reduction in the overall operating cost.



Solar Hot Water

Solar hot water heaters are widely used throughout Australia in domestic and commercial applications. For this technology to be effective the panels generally need to be orientated towards the north at a pitch of approximately 30° (for southern states) to ensure maximum exposure to solar radiation. Depending on system size and technology the solar contribution for hot water can be between 30% and 85%. In this project solar hot water heaters are intended to be utilised in combination with PV and standalone units for showers only. Further development will be needed to establish the final systems to be used.

Water Saving Initiatives – Pool

Water is a precious and high-demand resource; essential for all living beings. Reducing water consumption is a critical part of alleviating pressure on water sources and maintaining water availability. Public pools by nature have a very high water usage. Most of the water is lost through evaporation, spillage and filter backwash. There are a number of initiatives that can reduce the water usage, methods that do not consume additional energy are preferred over those that do.

Evaporation

The proposed pool installations have a relatively large water surface to volume ratio due in part to the shallow splash pool. Evaporation of pool water is therefore a significant cause of water loss. The following initiatives are intended to reduce evaporation losses:

- Appropriately shaded pool areas;
- Pool blankets for use overnight, where deemed appropriate; and
- Control of air flow over the pools through careful design of the ventilation systems.

Filter Backwash

Swimming pool water contains a range of treatment products such as chlorine, salt and acid, as well as traces of the filtration media. In addition, the water contains dirt particles (sediments), as well as body oils, sunscreen residues and potentially harmful bacteria.

In the normal operation of swimming pools, these materials are collected by the filtration system and captured or contained in the filter. To work efficiently, swimming pool filters need to be cleaned by backwashing all the captured materials out of the filter.

Depending on the treatment system selected, the backwash water can be very high in salts. Untreated, the backwash water is usually unsuitable for reuse such as in landscape irrigation due to the high salt concentration. Filtration technology is selected to reduce the need and frequency of backwash.





Rainwater Harvest And Use And Efficient Use

Rainwater collected from roofs and shade structures can be stored in underground or above ground tanks for later usage in a number of applications:

- WC/Urinal Flushing;
- Landscape Irrigation;
- Equipment wash-down; and
- Pool top up.

The quality of the rainwater is highly dependent on the surrounding environment and may have to be treated for suspended solids and microbes before reused. This reuse will be maximised by the selection of high efficiently bathroom fittings. This system is currently being evaluated by the engineering team for suitability for pool top-up to offset evaporation.

Acoustic Environment

Noise from public facilities is a common complaint, the main noise sources being large events, pool plant and vocal noise generated by some patrons. This can impact on surrounding buildings and/or disrupt other patrons within the precinct. Acoustic control can be achieved through:

- Locating pool equipment away from neighbouring buildings; and
- Provide noise reducing architectural features such as perforated acoustic panels, noise barriers, enclosures and wall treatments.

The current design ensures that pools are orientated away from the residential interface of the facility with the multipurpose spaces facing the residential interface instead. Glazing has also been reduced to the residential interface of the facility with internal spaces to be treated to provide a high level of acoustic performance and reduce noise transmission.

Learning Resources

Many ESD initiatives proposed for this development could form the basis for public environmental education. To assist in local environmental education, energy and water usage data can be displayed for the facility. Some key data could be output to a screen in the entry foyer to display quantity of rainwater harvested, electricity produced onsite (from cogeneration and solar PV), average water consumed per patron per day. Data showing of the



developments energy and water targets as well as consumption data of standard public pool installations could also be displayed.

Sustainable Transport

Provision of secure cyclist facilities at the site will enhance the ability of occupants to ride to the centre thereby offsetting the use of cars in the vicinity. Facilities should include racks for locking both the frame and wheels and with good passive surveillance and/or cameras. Lockers and showering facilities are available for end of journey requirements. Access via the former rail corridor foot / cycleway increases active travel opportunities.

The location of the centre within the city provides for increased accessibility. The site is permeable and routes to the centre will be provided to enable easy access for all. The site is also accessible via the Railway Lands and therefore has good connectivity with the CBD.

Materials

Where achievable, the use of low embodied energy materials such as locally sourced renewable timber has been considered to reduce the environmental impact of the centre. The use of local materials reduced energy wastage in transportation, and renewable materials require less energy to manufacture. These selections will be balanced with whole of life assessments, to minimise the need for materials to be replaced during the life of the building.

Heritage status

The subject site for development does not have any heritage status. However, it is located adjacent to a Historic (Conservation) Policy Area.

The location is in close proximity to three state heritage places and two local heritage places as identified within the Development Plan for the City of Mount Gambier. The Council has access to architects with expertise in heritage matters to advise on any future issues.



Aboriginal land or Aboriginal heritage

The development site is not subject to any native title or Aboriginal heritage claims.

The site has been continuously dedicated since 1881/1911 for public purposes, and since 1948 for community/civic centre. More recently (since 1985) it has been used for recreation purposes and has been the site of significant public works for over 40 years. The proposed development and use is in accordance with the reservation/dedication made by the State in 1985 and remains consistent with earlier reservations and the previous development of existing public works covering the site.

Consultation and approvals

The attached Summary of Community Engagement provides details of the local, state and broader groups that have been part of the development journey. The lack of indoor facilities and ageing existing sporting infrastructure, particularly for swimming, netball and basketball means that numerous clubs are anticipating the availability of the new facilities. Letters of support received from many clubs during the Expression of Interest stage have been followed up with active participation in design through the Community Reference Group to ensure facility usability.

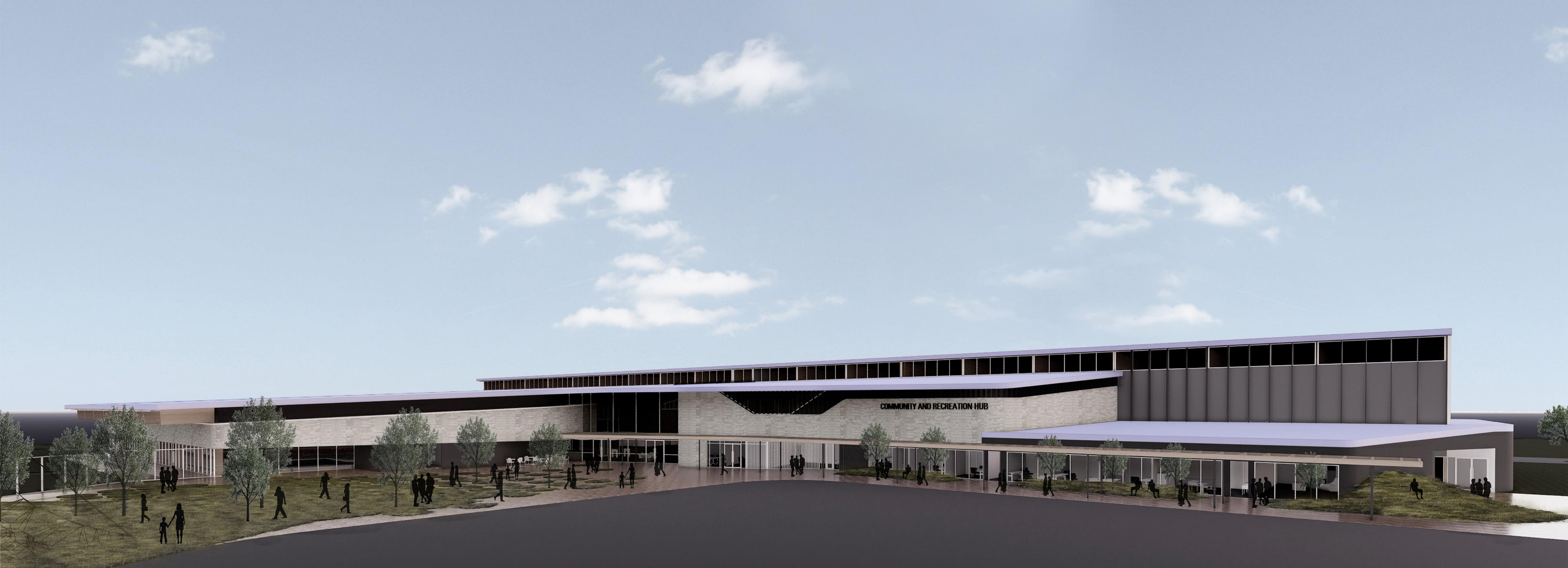
With strong interest from state and national sporting associations we anticipate new usage through preseason training camps, regional carnivals and tournaments promoting event tourism. Opportunities for new sports, entertainment and cultural enrichment activities are all supported through Strategic outcomes in the Youth Engagement Strategy and Cultural and Heritage Plans of Council.

The report also notes the outcomes of a Community Survey where 45% of the electorate responded to the survey with 72% of the community voting in favour of the Community and Recreation Hub.

The Council also advises that pursuant to Clause 20 of Schedule 10 of the Development Regulations 2008 the City of Mount Gambier, as the developer, have requested for the development be assigned to the State Commission Assessment Panel (SCAP) for assessment. For such a significant infrastructure project we believe that independent oversight is desirable.

Appendix

1. Mount Gambier Regional Sport and Recreation Centre – Summary of Community Engagement AR19/3103



















MOUNT GAMBIER REGIONAL SPORT AND RECREATION CENTRE SUMMARY OF COMMUNITY ENGAGEMENT

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1. Executive Summary

A proposal for an indoor sport and recreation centre is a recurring issue that surfaces regularly within the community and in Council discussions. For reasons associated with:

- the significant capital and operational costs;
- the potential financial consequences for Council and the community;
- the time and expense required to develop proposals for major regional infrastructure;

no previous applications for funding have been undertaken.

However, significant work has been done over a number of years that has allowed both the public and Council to have a better understanding of the likely capital costs, the potential impost on ratepayers and the significant social and community benefits that may accrue from an indoor sport and recreation centre. These are summarised with outcomes noted for each investigation.

This document sets out the historical and more recent community and Council involvement in promoting, preparing and submitting a detailed proposal for a Community Sport and Recreation Centre. The stages included:

- Previous call by the community for indoor sporting facilities over decades prior to 2018.
- Engagement with community stakeholders prior to the submission of a grant application under the Federal Government's Regional Growth Fund.
- Additional development works anticipating an invitation to progress to stage 2 of the Regional Growth Fund.
- Active community involvement with concepts and design.
- Meetings with state sporting bodies to garner support.
- Community engagement to inform stakeholders about the design, costs and funding implications.
- Results from a community survey providing a strong mandate from the community for the project.

2. Background

The matter of an indoor aquatics centre and more recently an indoor sport and recreation centre has been 'on the agenda' for decades. With each re-emergence of the issue the depth of knowledge has increased and more voices have contributed to the debate. The following provides a summary of some of the more significant actions that have occurred over time.

1994/95

- Council formed a working party to investigate the proposal that an indoor aquatic centre would be a desirable facility for the City, with the working party including a number of community representatives with knowledge/experience in various aspects of aquatics.
- Public opinion in 1995 was that the community were keen to have access to indoor facilities and Council concluded that the most viable option at that time was a new indoor pool facility (including a 25 metre pool, beach entry, and learner's pool) could potentially be built immediately adjacent to the outdoor pool.
- A number of solutions were proposed by an entity known as 'Anti Wave' with each of the options
 escalating in cost. The proposal included some modelling of income and expenditure. The
 investigations were not progressed.



2006/07

- Council allocated funding to Simply Great Leisure Consulting Group (SGL) to prepare a high level concept plan and feasibility study to gain a detailed understanding of current design standards and the type of facilities/activities typically provided in a modern Indoor Recreation Centre. The work included
 - A Demand Analysis Report that included:
 - 300 random households to complete a survey
 - Recreation Facility Users Survey
 - School Survey
 - Recreation and Sport Focus Group.
 - Design Cost and Location Report where community feedback identified the existing outdoor pool zone as the preferred site for any new facilities.
 - Feasibility Analysis with modelling of projected revenues and expenses for different types of recreation activities that may be undertaken in the proposed facility.
- These reports provided a good indication of community views and the likely financial impacts of providing such a centre in Mount Gambier.
- The reports were received by Council and no decision to proceed was made due to other pending major capital projects.

2012/13 December - August

- In December 2012, indoor pool and recreation facilities in Warrnambool, Ballarat and Horsham
 in Victoria were visited by Council staff to obtain direct information about design, operating costs
 and ongoing issues. During this same period Council acknowledged receipt of a community
 petition with 1782 signatures requesting that council build 25 meter swimming pool next to the
 outdoor pool.
 - 2 workshops were held to discuss the reports prepared from the site visit. The reports included projected capital and operating costs for an indoor aquatic facility adjacent to the existing 50 meter pool.
 - Council resolved to defer any consideration of an Indoor Aquatic Centre until at least 2017/18.

2014/15 October - March

 Council discussed the possibility of preparing a submission for National Stronger Regions Fund for a Community Recreation Centre. Discussion considered the number of capital projects that Council already had in progress at that time, together with supportable debt levels and funding was not pursued. However Council was mindful that additional rounds/stages of funding may emerge which may better suit this form of infrastructure and the issue remained of continued interest.

Over time, emphasis moved from an indoor aquatic centre to an indoor recreation centre. This shift in thinking acknowledged that an indoor aquatics centre, when operating alone, would be financially challenging and a desire for a high quality indoor facility allowing for more flexible programming would be a better option for the community. This logic informed a second program of site visits

2016

 In November of 2016, a number of Elected Members and staff visited the Victor Harbor Alexandrina Recreation Centre, Immanuel College indoor sporting facility, Barossa Recreation Facility and the Campbelltown Aquatic Facility to provide further knowledge about content, costs and operations of indoor recreation facilities.



2017

 Ongoing and more frequent community voices continued to be critical of the lack of indoor aquatics and other recreational facilities with Council discussions responding to the representations.

The greater frequency of discussions and community representations over the timelines noted above have been tempered by;

- Council knowledge of the significant previous works identifying the capital costs which are beyond the affordability of Council on it's own;
- a strong sense of social responsibility for ongoing operational costs which will necessarily flow through as rate increases to the community, and
- a stronger appreciation of the broader non quantifiable social benefits on health, community resilience and wellbeing.

3. Consultation and Community Engagement 2018

The notion of an indoor sport and recreation centre has benefitted from community voices at various stages in previous years as noted above and in the process of preparing the Regional Growth Fund Expression of Interest. Initial community consultation included the following;

- participation by the Mayor and CEO in a Community Forum attended by 350 members of the community. Preliminary information about the proposed centre was provided and audience questions answered. A community interest group was formed.
- key stakeholders were asked to complete a questionnaire and also invited to meet with the Council working party to provide input into the proposal.
- letters of support have also been requested from schools, sporting groups, health entities and Members of Parliament. Both State and Federal ministers have been very proactive in promoting and supporting the submission of this Expression of Interest to secure funding.

Questionnaire

A questionnaire requesting information to specifically inform the EOI included the following topics:

- What new events might clubs be able to hold or secure in the new centre?
- How would the new centre impact sport participation rates?
- What additional employment opportunities may be available?
- Could extensions of employment (currently seasonal) be required?
- What new volunteering opportunities may arise from events or additional programs?

The Questionnaire was provided to the following key stakeholders:

- Western Border Football League
- Western Border Netball League
- Limestone Coast Football Association
- Mount Gambier Netball Association
- Mount Gambier and Districts Tennis Association
- Mount Gambier Basketball Association
- Mid South East Football League
- Mid South East Netball League



- Mount Gambier Aquatic Centre
- Mount Gambier Swimming Club Inc.
- Blue Lake Y Amateur Swimming Club
- Mount Gambier Royal Lifesaving Club
- Beachport Surf Lifesaving Club
- Blue Lake Sports Medicine

Summary of questionnaire responses

The following provides a summary of the questionnaires completed by key stakeholders and notes answers when provided.

Number of Members

Mount Gambier Netball Club 8 Clubs
Mount Gambier Aquatic Centre 500

Mid South East Football League 9 Member Clubs

Basketball Mount Gambier 750

Mount Gambier and District Tennis Association 11 Member Clubs

Mount Gambier Swimming Club38Blue Lake Y Swim Club70Mid South East Netball Association1,000Mount Gambier Surf Lifesaving Club15Beachport Surf Lifesaving Club100

Number of Players

Mount Gambier Netball Association 600

Mount Gambier Aquatic Centre Up to 350 between 9.00am & 3.00pm each

day/week & 1100 afterschool per week do lessons. Overall approximately 66,000 visits from mid-October through to end of March

each season.

Mid South East Football League 1100 Basketball Mount Gambier 600 Mount Gambier and District Tennis Association 500 Mount Gambier Swimming Club 23 Blue Lake Y Swim Club 45 Mid South East Netball Association 810 Mount Gambier Surf Lifesaving Club 15 Beachport Surf Lifesaving Club 62

Attraction of Events

Mount Gambier already hosts an impressive array of outdoor sporting events that bring significant economic benefits to the region through tourism. Recent investments in more sophisticated online resources that encourage visitors to stay longer have already paid dividends. The potential for the Mount Gambier Regional Sport and Recreation Centre to extend such economic opportunities for the whole year and for a new range of events will provide important direct and indirect employment opportunities that are difficult to measure.



Suggestions of events that could be attracted to the region by key stakeholders (additions from a diverse group of other sporting groups will form part of stage 2 community consultations) and by Council event staff (based on previous inquiries) could be regarded as aspirational. Where events suggested may be in competition with the income earning capacities of an existing club, they have not been included in the table below. However, often the community has insufficient facilities and partnerships with clubs will bring benefits to the community.

Tourism Research Australia 2016 data identifies that domestic visitors to a region spend on average \$136 per person per night and this compares with figures from Sports Marketing Australia who suggest that sports tourism visitors spend \$265 per person per night. Taking a conservative view and estimating a 25% success rate in attracting the events noted below, this represents a significant economic benefit per annum of \$563,752 with multiplier effects on employment and consumption.

Of the questionnaires received an indication of new events that could be attracted to the region utilizing the proposed facilities included:

Event	Month	Local Participants	Visitors to the region	Total	Days	Domestic \$136 per night
Southern Regionals Ultimate Frisbee	February	320	416	736	2 days	56,576
Adelaide 36's visits	August	100	800	900	3 days	217,600
Indoor Bowls SA-	August	450	1186	1636	3 days	322,592
Bocce Nationals - provision to include 8-10 indoor	January-Nationals	120	400	520	4 days	163,200
Bocce Nationals Host with Italian Club.	June-Aust National RAFFA Opens	150	400	550	3 days	108,800
Red Bull Neymar Jr's 5 A Side Football – played on hard courts	March/April/May	260	800	1060	1 day	108,800
National Calisthenics	November	250	1000	1250	3 days	272,000
Triathlon/Duathlon – using pool as one part of the leg in the race	Summer event	120	400	520	2 days	54,800
Gymnastics	all year round	120	300	420	1	40,800
Table tennis	all year round	200	150	350	1	20,400
Badminton	all year round	300	300	600	1	40,800
Handball	new sport to start up All year round	400	250	650	1	34,000
Martial Arts		600	200	800	1	27,200
Indoor concerts with enough seating for over 1000 people as grandstand around outside or retractable seating		1000	1000	2000	1	136,000
Questacon/SciWorld		3000	2000	5000		272,000
State Swimming Championships		200	800	200 com 800 vis	3	217,600
Adelaide Thunderbirds - Exhibition Game		100	150	20 com 250 spec	1	20,400
Regional Netball Academy	February	120	60	180	3 x 1mth	24,480
Super Series Netball preseason	May-Sept	100	100	200	1-2 days	27,200



Regional Swimming Country Championships	March	200	250	450	2-3 days	68,000
Regional Swimming Training Camps	All year	100	40	140	2-3 days	10,880
Combined Coaching Sessions with SW Victorian Swim Clubs	Winter	70	80	150	1 day	10,880
Combined SA/Vic Pool Surf Lifesaving Championships		400-600	500	600	2 days	
Combined SA/Vic Pool Royal Lifesaving Championships		200-300	250	250	2 days	
		8280	11,082			2,255,008

Increased Participation

In relation to increased participation rates in a chosen sport approximately 85 per cent of key stakeholders indicated a possible 20% to 25% increase.

15% saw no change as the multipurpose facility was not suitable for their sport, for example football, however for player training recovery the new centre would be very useful.

1. How Many New Jobs

- Mount Gambier (outdoor) Aquatic Centre currently has 45 to 50 staff with a FTE loading of about 0.22. This would probably remain constant, however shift from 6 months to 12 months (Note: with an additional 1 pool for training and a splash pool to supervise increases in FTE adopts a conservative approach 45 x .22 = 9.9 for 6 months and 19.8 FTE for 12 months. As a popular tourist destination Mount Gambier has many families visiting the region during school holidays and pool utilsation is unlikely to decline over school holidays).
- Mount Gambier and District Tennis Association Potential for coaching staff to be drawn to the region if an all weather facility is available.
- Mount Gambier Swimming Club / Blue Lake Y Swim Club Potential to offer a paid position to a higher qualified coaches. 1 FTE to facilitate both clubs.

What percentage of jobs are likely to be for persons under 25 years of age:

Some key stakeholders have indicated an estimated 75% of jobs are likely to be for persons under 25 years of age. The consensus is that with a new facility and increased employment opportunities this may encourage young persons to stay in the region rather than move away. Students interested in pursuing a career in physical education may seek employment/work experience if an all weather facility was available.

2. How many jobs may be extended in time because the option for 12 month employment?

With the option of an all year / all weather facility, those Key Stakeholders able to use the facility for their chosen sport indicated jobs would be extended in time because of the option for 12 month employment. Seasonal sports would be able to utilize the facility all year round which would allow for additional training sessions/competitions.

3. How many volunteering opportunities may be created?

All Key Stakeholders acknowledged that there would be an increase in volunteering



opportunities per season ranging from 10 - 50 and occasional for events from 1 to 100.

With a new facility attracting more events/tournaments volunteers will be a necessity to be successful. Typically upwards of 10 - 15 volunteers would be required for the running of a tournament with national competitions easily increasing to 50 or more.

4. Other Comments:

Mount Gambier Netball Association

 Current running of the Association is voluntary based. Any growth of our sport would need more volunteers not paid employment.

Basketball Mount Gambier

 Current facility was built in 1968/69 and third court in 1973. Urgent need for upgrade and addition of at least a fourth court.

Mount Gambier and District Tennis

- Firstly, country sport is about community building and social interaction. Creating a centre
 for sport and recreation not only facilitates individual participation in healthy sporting
 activities but also provides an avenue for parents, friends and relatives to either participate
 in sporting activities together, or simply enjoy each-other's company while watching and/
 or supporting participants.
- Secondly, whilst it reeks of trying to have our cake and eat it, it would be highly desirable for there to be some sort of contingency for the re-development of the existing tennis courts at Olympic Park under this proposed development umbrella. MGDTA has been working for many years to get the facilities at Olympic Park upgraded and is deep into the application process of obtaining funding as its own entity with the greatly appreciated conditional support of Mount Gambier City Council. We all know there is no such thing as a sure bet and it would be soul-destroying should we be unsuccessful in our own efforts to then see a major development, such as the one proposed, occur 'metres' away and for us to be playing tennis on the dilapidated courts we currently have.

Mount Gambier Aquatic Centre

• This is an amazing opportunity that Council has to have a real impact on the significant number of young people leaving their families and the community to seek work elsewhere. As an employer in my position it would really allow me to offer better conditions, engage with more professional development opportunities for staff and probably significantly increase the level of our offerings in both quality and quantity.

Mount Gambier Swimming Club

- With increased facilities at Olympic Park, this would open up the possibilities for Mount Gambier and Blue Lake Y Swim Clubs to host more events, without the pool complex being closed to the general public. While the outdoor facility may be closed to the general public during main swimming meets, patrons would be able to access an indoor facility, thus generating more income and increased patronage for the Aquatic Centre. This currently occurs at many Aquatic Centres throughout the Barwon South West (Victoria) District which our club is affiliated with as a border club. This has occurred the past two years at Warrnambool and Geelong at the All Junior District Championships, another event that our club could look at hosting in the future.
- Should the pool be built to the correct specifications, there would also be the potential for us to host the Victorian Country Short Course Championships, which attracts swimmers from all of regional Victoria.



Blue Lake Sports Medicine

- This stakeholder did not complete the questionnaire but provided a detailed statement of
 inclusions that were desirable from the point of view of other users of the proposed centre.
 Perspectives about physical spaces included disability access, site access in terms of
 ease of parking and building design and youth access. Comments relating to the needs of
 other users included:
 - o disability, rehabilitation, those with chronic conditions requiring exercise therapies
 - o use by those who play sport for recovery and injury management
 - o the facility would be a 'fabulous' social asset.

Mid South East Netball Association

• The facility will benefit the region in different ways, MSENA may not use it directly but with the opportunity to attract events will increase the chance to run clinics with visiting top athletes whilst they are here for events.

Mount Gambier Royal Life Saving Club

- We are hugely disadvantaged for not having a pool all year round.
- To be able to swim all year round will benefit mental health, obesity, recovery of injury.

Beachport Surf Life Saving Club

- Pool lifesaving would add an extra dimension to Surf Life Saving during the winter months, enabling members to be rescue ready for the start of the patrol season. Currently if the club were to consider the winter training, the only time available would be restricted to lap swimming on Tuesday evenings and even then the pool is not deep enough to meet the Surf Life Saving pool criteria.
- Pool Lifesaving competitions would give the opportunity for our elite lifesavers to display the skills that keep them actively fit and work with other clubs.
- Beachport Surf Life Saving Club have unofficially adopted Portland Surf Life Saving Club
 as their sister club and have worked very closely together this year to provide training
 opportunities for both in Beachport and at Cape Bridgewater. With an Indoor Pool facility
 in Mount Gambier, this could provide our clubs to look towards the future with pool training
 and friendly interclub or border competitions to include South-West Victorian Surf Life
 Saving Clubs as well as Robe/Beachport Surf Life Saving Clubs in South-East SA.

Blue Lake Y Swim Club

- With increased facilities at Olympic Park, this would open up the possibilities for Blue Lake
 Y and Mount Gambier Swim Clubs to host more events without the pool complex being
 closed to the general public. While the outdoor facility may be closed to the general public
 during main swimming meets, patrons would be able to access an indoor facility, thus
 generating more income and increased patronage for the Aquatic Centre.
- This currently occurs at many Aquatic Centres throughout the Barwon South West (Victoria) District which our club is affiliated with as a border club. This has also occurred the past two years at Warrnambool and Geelong at the All Junior District Championships, another event that our club could look at hosting in the future.
- Should the pool be built to the correct specifications, there would also be the potential for us to host the Victorian Country Short Course Championships, which attracts swimmers from all of regional Victoria.



4. Key Stakeholders that addressed the Working Party:

Key Stakeholders that addressed the Council Working Party are as follows:

- Mid South East Football League
- Western Border Netball League
- Blue Lake Y Amateur Swimming Club
- Mount Gambier Swimming Club
- Pioneers Basketball
- Basketball Mount Gambier
- Mount Gambier and District Tennis Association
- Mount Gambier Aquatic Centre
- Rowan Williamson New Tennis Club
- Mount Gambier Netball Association
- Blue Lake Sports Medicine

Council staff also met with representatives from Tennis SA to discuss the initial proposal.

5. Letters of Support

Letters of support were sought and received from a variety of organisations including:

- · Member for Mount Gambier, Mr Troy Bell MP
- Netball SA
- Mount Gambier Netball Association
- Amazons Netball Club
- Intruders Netball Club
- Lakes Netball
- Saints Netball Club
- · Zodiacs Netball Club
- Tenison Woods College
- Tenison Woods College, Student Representatives
- Mid South East Football League
- Boandik Aged Care
- St Martins Lutheran College
- Mount Gambier Swimming Club
- Mid South East Netball Association
- Limestone Coast Local Government Association
- Julie Moran Swimming Club President
- Beachport Surf Life Saving Club
- Janine Milsop, A/Education Director, Department for Education

A community working party has coordinated a petition in support of the proposed Sport and recreation centre using various means of promoting, distributing and management of the campaign. The petition was presented to Council on 24th April with 10,036 signatures at a Special Meeting convened to finalise the Expression of Interest for the Federal Government funding opportunity under the Regional Growth Fund.



6. Stage 2 Regional Growth Fund

Timelines required to prepare and consolidate all the documentation required to submit a full business case, should the Expression of Interest be successful would be very limited if Council waited to receive outcomes. Council endorsed a pathway forward in anticipation of a favourable outcome and continued with development work.

A Community Reference Group was formed on 18 July 2018 made up of members of the community representing a number of sectors including health, education, disability, sport and other community groups. This group contributed to the project by participating in discussions regarding its design to consider future use and needs, and to provide a local perspective on the impact of the facility in terms of use and access.

To provide an opportunity to those groups not represented on the Community Reference Group, Council's Community Development and Engagement team also undertook broader engagement with the community to obtain further input into the design, use and functionality of the centre. This included kindergarten services, primary and secondary school children, service clubs and focus groups such as music and performance.

Council staff and the Mayor also met with state and local sporting groups to ensure that all relevant stakeholders were both informed and had an opportunity to understand what was being proposed and receive any feedback they wished to offer.

In October the Federal Government advised that \$15 million had been earmarked form the Regional Growth Fund for the Community Sport and Recreation Centre. The work required to complete the necessary documentation coincided with some challenging timeframes, not the least concerning a Council Election.

After all relevant design, costing and financial information had been received and collated, an intensive community engagement program was undertaken. The focus of the community engagement campaign has been to inform the City of Mount Gambier community and electors about the Community and Recreation Hub, the intermediate design elements including possible functions and uses, the costs and to provide the opportunity for questions to enable the community to make an informed decision when surveyed.

Formal engagement commenced on Saturday, 10 November 2018 with a door knock throughout the residential area south of the proposed complex and the businesses north of the proposed complex along Margaret Street. The community engagement campaign has included an extensive calendar of daily activities from the 10 November 2018 to 7 December 2018 period that include:

Residential door knock (immediate area)	Library Markets
Probus presentations x 2	Mount Gambier Central (1 week)
Soroptimist presentation	Main Street Businesses
Rotary presentation x 3	Permanent presence in Commercial St (old BUPA)
Men's Shed	Coles Supermarket
CRG member groups	Market Place (1 wk)
Basketball Association (Icehouse)	Woolworths Supermarket
Party in the Park	Bunnings
Park Run	Valley Lakes
Library	Farmers Market
Truck Show	Blue Lake Fun Run/Main Corner
Aquatic Centre	City Hall public meeting
Boandik Lodge Inc, Crouch Street	



This was supported by high profile placement of marketing material, including a media campaign consisting of traditional and social mediums, and an extensive face to face component. The campaign was a collaborative effort with between Council staff, representatives of the Community Reference Group and Councillors.

The community engagement process was followed by a survey of all persons on the Mount Gambier electoral roll to provide evidence of the level of community endorsement supporting the Community and Recreation Hub Concept.

7. Elector Survey

A survey of 19,332 electors for the City of Mount Gambier was held in late 2018 using an independent agency to both deliver and receive all voting material. Results of the survey were received by Council on 8 January 2019. A total 8,722 (45.1%) of eligible votes responded to the survey with 6,230 responders (71.6%) voting 'yes' in support of the project. The outcome provides a strong mandate in support of the project.

