PROPOSED COMMERCIAL DEVELOPMENT
LOT 9501 CNR GAEBLER & HAMMOND ROADS
HAMMOND PARK

ENVIRONMENTAL ACOUSTIC ASSESSMENT

OCTOBER 2023

OUR REFERENCE: 31742-2-23260

Rochdale Holdings Pty Ltd A.B.N. 85 009 049 067 trading as:
HERRING STORER ACOUSTICS
P.O. Box 219, Como, W.A. 6952
(08) 9367 6200
hsa@hsacoustics.com.au

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ENVIRONMENTAL ACOUSTIC ASSESSMENT

COMMERCIAL DEVELOPMENT
HAMMOND PARK

Job No: 23260

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FOR

BUILD+

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1. INTRODUCTION

Herring Storer Acoustics were commissioned to undertake an acoustic assessment of noise emissions associated with the proposed centre zone development to be located at Lot 9501, corner of Gaebler and Hammond Roads, Hammond Park.

This report assesses noise emissions from the premises with regards to compliance with the requirements of the *Environmental Protection (Noise) Regulations 1997*. Noise sources considered as part of this assessment, as requested by council, include:

- Mechanical Services;
- Delivery vehicles;
- Carwash; and
- Voice associated with the drive thru's of the fast food tenancies.

Comment is also provided with regards to noise associated with waste collection.

For reference, the site plan for the proposed development is attached in Appendix A.

2. SUMMARY

As shown on Figure 3.1, the closest neighbouring residences to this development are to the west and north.

From the analysis undertaken, noise emissions from the proposed development have been assessed to comply with the requirements of the *Environmental Protection (Noise) Regulations 1997* at all times with the inclusion of some noise mitigation into the design of the development. The noise mitigation includes :

- The mechanical services design needs to be confirmed during design development phase. An acoustic study of the mechanical services be undertaken once the design has been finalised, to ensure compliance is achieved.
- Mechanical services to be screened from the existing and future residences.
- the air conditioning condensing units will be installed with Night period quiet modes that reduce noise emissions from the condensing units by at least 5 dB(A).
- Either the vacuum units to be installed within acoustic hoods or the noise level from the units be limited to 71 dB(A) at 1 metre.
- The auto wash be installed with fast action doors.

3. CRITERIA

3.1 ENVIRONMENTAL PROTECTION (NOISE) REGULATIONS 1997

The allowable noise level for noise sensitive premises in the vicinity of the proposed Large Format Retail development is prescribed by the *Environmental Protection (Noise) Regulations 1997*. Regulations 7 and 8 stipulate maximum allowable external noise levels or assigned noise levels that can be received at a premise from another premises. For residential premises, this noise level is determined by the calculation of an influencing factor, which is then added to the base levels shown below. The influencing factor is calculated for the usage of land within two circles, having radii of 100m and 450m from the premises of concern. The base noise levels for residential premises are listed in Table 3.1.

TABLE 3.1 - BASELINE ASSIGNED OUTDOOR NOISE LEVEL

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: highly sensitive area	0700 - 1900 hours Monday to Saturday (Day)	45 + IF	55 + IF	65 + IF
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day)	40 + IF	50 + IF	65 + IF
	1900 - 2200 hours all days (Evening)	40 + IF	50 + IF	55 + IF
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	35 + IF	45 + IF	55 + IF

Note: L_{A10} is the noise level exceeded for 10% of the time.
L_{A1} is the noise level exceeded for 1% of the time.
L_{Amax} is the maximum noise level.
IF is the influencing factor.

It is a requirement that received noise be free of annoying characteristics (tonality, modulation and impulsiveness), defined below as per Regulation 9.

"impulsiveness" means a variation in the emission of a noise where the difference between L_{Apeak} and $L_{Amax(Slow)}$ is more than 15 dB when determined for a single representative event;

"modulation" means a variation in the emission of noise that –

(a) is more than 3 dB L_{AFast} or is more than 3 dB L_{AFast} in any one-third octave band;

(b) is present for more at least 10% of the representative assessment period; and

(c) is regular, cyclic and audible;

"tonality" means the presence in the noise emission of tonal characteristics where the difference between –

(a) the A-weighted sound pressure level in any one-third octave band; and

(b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as $L_{Aeq,T}$ levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as L_{ASlow} levels.

Where the noise emission is not music, if the above characteristics exist and cannot be practicably removed, then any measured level is adjusted according to Table 3.2 below.

TABLE 3.2 - ADJUSTMENTS TO MEASURED LEVELS

Where **tonality** is present	Where **modulation** is present	Where **impulsiveness** is present
+5 dB(A)	+5 dB(A)	+10 dB(A)

Note: These adjustments are cumulative to a maximum of 15 dB.

For this development, the closest residential premises of concern are located to the north east, as shown on Figure 3.1 below. Each individual premises has been considered in our assessment, however, to simplify reporting, only the highest noise level for each scenario considered has been reported.



FIGURE 3.1 – AREA AROUND PROPOSED DEVELOPMENT

The influencing factor at the nearest residential locations have been determined to be 0 dB. Thus, the above, the assigned noise levels are as listed in Table 3.3.

TABLE 3.3 - ASSIGNED OUTDOOR NOISE LEVEL

Premises Receiving Noise	**Time of Day**	**Assigned Level (dB)**		
		$L_{A\ 10}$	**$L_{A\ 1}$**	**$L_{A\ max}$**
Noise sensitive premises: Highly sensitive area	0700 - 1900 hours Monday to Saturday	45	55	65
	0900 - 1900 hours Sunday and Public Holidays	40	50	65
	1900 - 2200 hours all days	40	50	55
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays	35	45	55

Note: L_{A10} is the noise level exceeded for 10% of the time.
L_{A1} is the noise level exceeded for 1% of the time.
L_{Amax} is the maximum noise level.

It is understood that the fast food outlets and the carwash would be 24 hour / 7 days a week operations. Thus, noise received at the neighbouring residences from these premises need to comply with the assigned noise levels for all times of the day and night. Additionally, it has been assumed that the medical centre could open during the evening and / or on Sundays and Public Holidays. Thus, noise received at the neighbouring residences needs to comply with the assigned noise levels for these periods.

4. MODELLING

Modelling of the noise propagation from the proposed development was carried out using an environmental noise modelling computer program, "SoundPlan". Calculations were carried out using the EPA worst case weather conditions as stated in the Environmental Protection Authority's *"Draft Guideline on Environmental Noise for Prescribed Premises".*

4.1 MECHANICAL SERVICES

It is noted that mechanical services have not been selected at this stage of the development, thus, it is not possible to use actual equipment selections in our calculations. Hence, typical noise levels for air conditioners associated with tenancies of the size proposed has been utilized. The noise modelling is conservative, as it does not include any diversity in load, which would occur (particularly during the night period).

The calculations for the mechanical services were based upon the sound power levels listed in Tables 4.1.

TABLE 4.1 – SOUND POWER LEVELS
MECHANICAL SERVICES

Item of Equipment	Sound Power Level, (dB(A))
7 - Eleven	AC - 2 @ 70
Medical Centre	AC - 6 @ 764 Exhaust 2 @ 72
Fast Food 1 (Starbucks)	AC - 2 @ 79 Supply Fan 1 @ 75 Exhaust 1 @ 70 and 1 @ 80
Fast Food 2 (McDonalds)	AC - 2 @ 79 Supply Fan 1 @ 75 Exhaust 1 @ 70, 1 @ 73 and 1 @ 80 Refrigeration 2 @ 75
Fast Food 3 (KFC)	AC - 2 @ 79 Supply Fan 2 @ 78 Exhaust 1 @ 70, 2 @ 73, 1 @ 75 and 1 @ 85 Refrigeration 1 @ 75 and 1 A

It is noted equipment selected during the design phase of the development will need to have noise emissions confirmed in relation to the above assumed noise levels.

With regards to noise emissions, the following are noted:

1 Noise associated with the mechanical services does not take into account any diversity of operation.

2 For the night period assessment, it has been assumed that the air conditioning condensing units will be installed with Night period quiet modes that reduce noise emissions from the condensing units by at least 5 dB(A).

3 The location of the mechanical plant has been assumed to be on the roof of the tenancies, with screening to the plant.

4.2 DELIVERIES

The L_{A1} assigned noise level would be the pertinent prescribed noise level in this instance (for deliveries) as the duration of time that the noise of the deliveries is present is less than 10% of a representative time period. The noise associated with the delivery is the manoeuvring of the truck into place, upon which the truck is switched off – hence – even if the delivery takes some time (i.e. 30 – 60 minutes) the noise level associated with the truck is not present throughout the duration of the delivery.

The calculations for delivery trucks were based in the sound power levels listed in Tables 4.2.

TABLE 4.2 – GENERAL SOUND POWER LEVELS

Item of Equipment	Sound Power Level, (dB(A))
Delivery Truck	89

4.3 VOICES ORDERING

Noise modelling was undertaken for voices within the drive thru's, including ordering speakers within Fast Food Outlets.

The noise emissions associated with voices and ordering speaker are listed in Table 4.3.

TABLE 4.3 – SUMMARY OF NOISE EMISSIONS FROM OPERATIONS

Item of Equipment	Sound Power Level, (dB(A))
Voice	73
Ordering Speaker	83

4.4 CARWASH

As requested, noise modelling was undertaken for the car wash and vacuum bays, assuming the following activities are taking place:

DAY, EVENING and SUNDAY / PUBLIC HOLIDAY DAY PERIOD

- 2 vacuum units in operations; and
- 2 Auto carwashes in use.

NIGHT PERIOD

- 1 vacuum units in operations; and
- 1 auto carwash in use.

We understand that the carwash would be open 24 hours per day, 7 days per week. Given the possible usage, noise emissions from the car wash and vacuum bays need to comply with the assigned L_{A10} noise level.

From measurements undertaken at a similar facility, noise emissions associated with the vacuum units and wash down are listed in Table 4.5.

TABLE 4.5 – SUMMARY OF NOISE EMISSIONS FROM OPERATIONS

Item of Equipment	Sound Power Level, (dB(A))
Vacuum Unit	82
Auto carwash (With Doors closed)	79

5. PREDICTED NOISE EMISSIONS

Calculations were undertaken to all the residences noted on Figure 3.1. The resultant noise levels are listed in Table 5.1.

NOTE: Noise levels were calculated at all adjacent noise sensitive premises, however, for simplicity of reporting, only the highest noise levels have been included below.

TABLE 5.1 – CALCULATED NOISE LEVELS

Item	Residences (dB(A))		
	North East	East	South (Future)
Mechanical services			
Day	33 L_{A10}	32 L_{A10}	32 L_{A10}
Evenings/Sundays	33 L_{A10}	32 L_{A10}	32 L_{A10}
Night	26 L_{A10}	24 L_{A10}	24 L_{A10}
Deliveries	35 L_{A1}	33 L_{A1}	37 L_{A1}
Fast Food Voices			
Voice	12 L_{A10}	12 L_{A10}	19 L_{A10}
Speaker	24 L_{A10}	26 L_{A10}	31 L_{A10}
Carwash			
Day	28 L_{A10}	30 L_{A10}	33 L_{A10}
Evenings/Sundays	28 L_{A10}	30 L_{A10}	33 L_{A10}
Night	25 L_{A10}	27 L_{A10}	29 L_{A10}

6. ASSESSMENT

The following provided the acoustic assessment for the noise sources requiring compliance, as listed in Table 5.1.

6.1 L_{A10} NOISE EMISSIONS

Noise emissions from the mechanical services would be steady state and would operate for the majority of time. Hence noise received from the mechanical services needs to comply with the assigned L_{A10} noise level. Additionally, noise emissions from the following noise source would also occur for more than 10% of the time and would be assessed under the assigned L_{A10} noise Level:

- Voices and ordering speakers; and
- Carwash.

Given the resultant noise level at the residences and likely background noise level in the area, we believe that noise emissions from the mechanical services are likely to be tonal, hence, a +5 dB(A) penalty has been applied to the calculated noise level associated with these noise sources. Tables 6.1 and 6.2 list the characteristics that should be included in the assessable noise level for the various times of day.

TABLE 6.1 – APPLICABLE ADJUSTMENTS AND ASSESSABLE L_{A10} NOISE LEVELS, dB(A)
MECHANICAL SERVICES – DAY, EVENING and SUNDAY / PUBLIC HOLIDAY DAY PERIODS

Location	Calculated Noise Level, dB(A)	Applicable Adjustments to Measured Noise Levels, dB(A)			Assessable Noise Level, dB(A)
		Where Noise Emission is NOT music			
		Tonality	Modulation	Impulsiveness	
North East	33	+5	-	-	38
East	32	+5	-	-	37
South	32	+5	-	-	37

TABLE 6.2 – APPLICABLE ADJUSTMENTS AND ASSESSABLE L_{A10} NOISE LEVELS, dB(A)
MECHANICAL SERVICES - NIGHT PERIOD

Location	Calculated Noise Level, dB(A)	Applicable Adjustments to Measured Noise Levels, dB(A)			Assessable Noise Level, dB(A)
		Where Noise Emission is NOT music			
		Tonality	Modulation	Impulsiveness	
North East	26	+5	-	-	31
East	24	+5	-	-	29
South	24	+5	-	-	29

Table 6.3 shows the applicable Assigned Noise Levels, and assessable noise level emissions associated for the scenarios associated with the mechanical services.

TABLE 6.3 – ASSESSMENT OF L_{A10} NOISE LEVEL EMISSIONS
MECHANICAL SERVICES

Location	Assessable Noise Level, dB(A)	Applicable Times of Day	Applicable Assigned L_{A10} Noise Level (dB)	Exceedance to Assigned Noise Level (dB)
North East	38	Day Period	45	Complies
		Sunday Day Period	40	Complies
		Evenings	40	Complies
	31	Night	35	Complies
East	37	Day Period	45	Complies
		Sunday Day Period	40	Complies
		Evenings	40	Complies
	29	Night	35	Complies
South	37	Day Period	45	Complies
		Sunday Day Period	40	Complies
		Evenings	40	Complies
	29	Night	35	Complies

Noise received from voice does not contain any annoying characteristics. Thus, the assessable noise levels are as listed in Table 5.1. Tables 6.4 and 6.5 show the applicable Assigned Noise Levels, and assessable noise level emissions associated for the scenarios associated with the gym classes.

TABLE 6.4 – ASSESSMENT OF L_{A10} NOISE LEVEL EMISSIONS
VOICES

Location	Assessable Noise Level, dB(A)	Applicable Times of Day	Applicable Assigned L_{A10} Noise Level (dB)	Exceedance to Assigned Noise Level (dB)
North East	12	Day Period	45	Complies
		Sunday Day Period	40	Complies
		Evenings	40	Complies
		Night	35	Complies
East	12	Day Period	45	Complies
		Sunday Day Period	40	Complies
		Evenings	40	Complies
		Night	35	Complies
South	19	Day Period	45	Complies
		Sunday Day Period	40	Complies
		Evenings	40	Complies
		Night	35	Complies

TABLE 6.5 – ASSESSMENT OF L_{A10} NOISE LEVEL EMISSIONS
ORDERING SPEAKERS

Location	Assessable Noise Level, dB(A)	Applicable Times of Day	Applicable Assigned L_{A10} Noise Level (dB)	Exceedance to Assigned Noise Level (dB)
North East	24	Day Period	45	Complies
		Sunday Day Period	40	Complies
		Evenings	40	Complies
		Night	35	Complies
East	26	Day Period	45	Complies
		Sunday Day Period	40	Complies
		Evenings	40	Complies
		Night	35	Complies
South	31	Day Period	45	Complies
		Sunday Day Period	40	Complies
		Evenings	40	Complies
		Night	35	Complies

For the car wash, noise received at the neighbouring residences could be tonal. Thus, the +5 dB(A) penalty has been applied to the calculated noise level associated with the mechanical services. Tables 6.6 and 6.7 lists the characteristics that should be included in the assessable noise level.

TABLE 6.6 – APPLICABLE ADJUSTMENTS AND ASSESSABLE L_{A10} NOISE LEVELS, dB(A)
CAR WASH – EVENING, SUNDAY and PUBLIC HOLIDAY PERIODS

Location	Calculated Noise Level, dB(A)	Applicable Adjustments to Measured Noise Levels, dB(A)			Assessable Noise Level, dB(A)
		Where Noise Emission is NOT music			
		Tonality	Modulation	Impulsiveness	
North East	28	+5	-	-	33
East	30	+5	-	-	35
South	33	+5	-	-	38

TABLE 6.7 – APPLICABLE ADJUSTMENTS AND ASSESSABLE L_{A10} NOISE LEVELS, dB(A)
CAR WASH - NIGHT PERIOD

Location	Calculated Noise Level, dB(A)	Applicable Adjustments to Measured Noise Levels, dB(A)			Assessable Noise Level, dB(A)
		Where Noise Emission is NOT music			
		Tonality	Modulation	Impulsiveness	
North East	25	+5	-	-	30
East	27	+5	-	-	32
South	29	+5	-	-	34

Table 6.8 shows the applicable Assigned Noise Levels, and assessable noise level emissions associated for the scenarios associated with the Car Wash.

TABLE 6.8 – ASSESSMENT OF L_{A10} NOISE LEVEL EMISSIONS
CAR WASH

Location	Assessable Noise Level, dB(A)	Applicable Times of Day	Applicable Assigned L_{A10} Noise Level (dB)	Exceedance to Assigned Noise Level (dB)
North East	33	Day Period	45	Complies
		Sunday Day Period	40	Complies
		Evenings	40	Complies
	30	Night	35	Complies
East	35	Day Period	45	Complies
		Sunday Day Period	40	Complies
		Evenings	40	Complies
	32	Night	35	Complies
South	38	Day Period	45	Complies
		Sunday Day Period	40	Complies
		Evenings	40	Complies
	34	Night	35	Complies

6.2 L_{A1} NOISE EMISSIONS

Noise emissions from the following noise sources would be present for less than 10% of a representative time period, hence noise received from this noise source needs to comply with the assigned L_{A1} noise level:

- Deliveries.

Based on the definitions of tonality, noise emissions from these sources, being an L_{A1} and being present for less than 10% of the time, would not be considered tonal. Thus, no penalties would be applicable to the noise associated with delivery trucks. Hence, Table 6.9 shows the applicable Assigned Noise Levels, and assessable noise level emissions associated for the scenarios associated with the above noise sources.

TABLE 6.9 – ASSESSMENT OF L_{A1} NOISE LEVEL EMISSIONS DELIVERIES

Location	Assessable Noise Level, dB(A)	Applicable Times of Day	Applicable Assigned L_{A1} Noise Level (dB)	Exceedance to Assigned Noise Level (dB)
North	35	Day Period	55	Complies
		Sunday Day Period	50	Complies
		Evenings	50	Complies
		Night	45	Complies
East	33	Day Period	55	Complies
		Sunday Day Period	50	Complies
		Evenings	50	Complies
		Night	45	Complies
South	37	Day Period	55	Complies
		Sunday Day Period	50	Complies
		Evenings	50	Complies
		Night	45	Complies

7. CONCLUSION

From the above assessments, the noise received at the neighbouring residences complies with the requirements of the *Environmental Protection (Noise) Regulations 1997* at all times with some noise mitigation incorporated into the design of the development. The noise mitigation includes :

- The mechanical services design needs to be confirmed during design development phase. An acoustic study of the mechanical services be undertaken once the design has been finalised, to ensure compliance is achieved.
- Mechanical services to be screened from the existing and future residences.
- the air conditioning condensing units will be installed with Night period quiet modes that reduce noise emissions from the condensing units by at least 5 dB(A).
- Either the vacuum units to be installed within acoustic hoods or the noise level from the units be limited to 71 dB(A) at 1 metre.
- The auto wash be installed with fast action doors.

APPENDIX A

SITE PLAN



SITE CRITERIA

LOT 1

1. Site Area		**2,378m²**
2. Landscaping		
a. Required Soft L/S	**10% Of Site**	**238m²**
OR	**5% + Verge**	**119m²**
b. Provided		
i. Soft		267m²
ii. Hard		85m²
	Total	**352m²**
3. Floor Area (GFA)		
a. Convenience Store		**192m²**
4. Carparking		**Carbays**
a. Cars Required	192m² @ 1/15m²	13
	1 Per Employee	2
	Total	**15**
b. Cars Provided		
i. On Grade		9
ii. Fuel Canopy		8
	Total	**17**

LOT 2

1. Site Area		**1,696m²**
2. Landscaping		
a. Required Soft L/S	**10% Of Site**	**170m²**
OR	**5% + Verge**	**85m²**
b. Provided		
i. Soft		222m²
ii. Hard		195m²
	Total	**417m²**
3. Floor Area (GFA)		
a. Fast Food		**245m²**
4. Carparking		**Carbays**
a. Cars Required	245m² @ 1/15m²	**17**
b. Cars Provided		
i. On Grade		14
ii. Drive Thru'		10
	Total	**24**

LOT 3

1. Site Area		**3,259m²**
2. Landscaping		
a. Required Soft L/S	**10% Of Site**	**326m²**
OR	**5% + Verge**	**163m²**
b. Provided		
i. Soft		477m²
ii. Hard		407m²
	Total	**884m²**
3. Floor Area (GFA)		
a. Medical Centre		**640m²**
4. Carparking		**Carbays**
a. Cars Required	10 Practitioner @ 5 Per	**50**
b. Cars Provided		
i. On Grade		**45**

LOT 4

1. Site Area		**2,702m²**
2. Landscaping		
a. Required Soft L/S	**10% Of Site**	**270m²**
OR	**5% + Verge**	**135m²**
b. Provided		
i. Soft		302m²
ii. Hard		166m²
	Total	**468m²**
3. Floor Area (GFA)		
a. Fast Food		**450m²**
4. Carparking		**Carbays**
a. Cars Required	450m² @ 1/15m²	**30**
b. Cars Provided		
i. On Grade		25
ii. Drive Thru'		12
	Total	**37**

LOT 5

1. Site Area		**4,453m²**
2. Landscaping		
a. Required Soft L/S	**10% Of Site**	**445m²**
OR	**5% + Verge**	**223m²**
b. Provided		
i. Soft		867m²
ii. Hard		108m²
	Total	**975m²**
3. Floor Area (GFA)		
a. Fast Food		**270m²**
4. Carparking		**Carbays**
a. Cars Required	270m² @ 1/15m²	**18**
b. Cars Provided		
i. On Grade		25
ii. Drive Thru'		10
	Total	**35**

Landscaping
A. Hard Landscaping
Defined as paved walkways either open or covered.
B. Soft Landscaping
Defined as vegetative landscaping.

Gross Floor Area : GFA
A. All Floor Areas on this plan are shown as GROSS FLOOR AREA. Unless otherwise noted as Nett Floor Area
B. Definition of Gross Floor Area is defined as:
i/ GROSS FLOOR AREA OF TENANCY:
Gross Floor Area of an individual Tenancy is defined as the area contained between the centre line of common tenancy walls and the outside edge of external walls.
ii/ GROSS FLOOR AREA OF A BUILDING:
Gross Floor Area of a Building is defined as the total area contained between the outside edge of external walls

COMPOSITE SITE CRITERIA

1. Site Area		
a. Lot 1		2,378m²
b. Lot 2		1,696m²
c. Lot 3		3,259m²
d. Lot 4		2,702m²
e. Lot 5		4,453m²
	Total	**14,488m²**
2. Landscaping		
a. Provided		
i.Soft		2,140m²
ii. Hard		1,093m²
	Total	**3,233m²**
3. Floor Area (GFA)		
a. Convenience Store		192m²
b. Food Restuarant		965m²
c. Medical Centre		640m²
	Total	**1,797m²**
4. Carparking		
a. Required		**Carbays**
Convenience Store	192m² @ 1/15m²	13
	1 Per Employee	2
Food Restuarant	965m² @ 1/15m²	65
Medical Centre	10 Prac @ 5 Per	50
	Total	**130**
b. Cars Provided		
i. On Grade		118
ii. Drive Thru'		32
iii. Fuel Canopy		8
	Total	**158**

SITE PLAN
SCALE: 1 : 500

PROPOSED MIXED USE DEVELOPMENT
LOCATION : LOT 9501 CNR GAEBLER ROAD & HAMMOND ROAD, HAMMOND PARK
FOR : BROAD VISION PROJECTS

meyer shircore architects

Member Australian Institute of Architects

0 5 10 15 20 25 50

DATE: OCT 2023
REVISION: SK015
SHEET: 4
SCALE: 1 : 500 @B1

PROJECT NUMBER **22-9101**

© Meyer Shircore & Associates
ACN 115 189 216
Suite 2, Ground Floor 437 Roberts Road, Subiaco WA 6008
PO Box 1294 Subiaco WA 6904
t: 08 9381 8511 e: msa@meyershircore.com.au

OPPORTUNITIES & CONSTRAINTS PLAN

LOT 41 GAEBLER ROAD
HAMMOND PARK

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CHECKED: -

DYNAMIC PLANNING
AND DEVELOPMENTS
e: admin@dynamicplanning.net.au
t: (08) 9275 4433
f: (08) 9275 4455
SUITE 15, 29 COLLIER ROAD
MORLEY WA 6062
ABN: 99 169 411 705

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