

## Mirvac Real Estate Pty Ltd

# **Confined Spaces Assessment**

39 Herbert Street, St Leonards NSW



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### **CONFINED SPACES ASSESSMENT**

Prepared for Mirvac Real Estate Pty Ltd

Prepared by
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## **Quality information**

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## **CONTENTS**

Exe	cutive summary	iν
	Assessment Findings	iν
	Recommended Actions	iν
1.	Introduction	1
	1.1 Site Description	1
2.	Scope	1
	2.1 Inaccessible Areas	1
3.	What is a Confined space?	1
4.	Risk Assessment	3
5.	Findings	4
6.	Recommended Actions	4
7.	References	4
8.	Limitations	5
Арр	endix A: Confined Spaces Register	6
Арр	endix B: Confined Space Risk Assessments1	0
Арр	endix C: Photographs1	7
App	endix D: Confined Space Signage2	23

### **EXECUTIVE SUMMARY**

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by Mirvac Real Estate Pty Ltd (the client) to conduct a confined spaces assessment at the business park, located at 39 Herbert Street, St Leonards NSW, 2065. Phoebe Quessy of Tetra Tech carried out the audit on 20<sup>th</sup> February 2023. For the purpose of this audit, the principal definition of a confined space is that described in the *Work Health and Safety Regulation 2017 (NSW)*.

Identified confined spaces were not entered by personnel at the time of the assessment, therefore the risk assessments contained in this report are limited to general observations made. A more detailed task specific risk assessment is required prior to entering any confined spaces identified in this report.

#### **Assessment Findings**

The following findings are based on the site inspection, discussions with site personnel, and review of relevant documentation:

- A total of 38 confined spaces were identified at the site.
- The majority of the spaces were appropriately signposted, however stormwater drains throughout were not signposted.
- All confined spaces appeared to be appropriately secured from unauthorised access at the time of the assessment.
- The Mirvac Confined Space Entry Permit was made available for review. This included a requirement for the isolation of plant and services associated with confined spaces prior to any entry occurring.

Note: Refer to Appendix A for the confined space register and Appendix C for photographs.

#### **Recommended Actions**

The following actions are recommended, based on the above findings:

- Ensure a task specific risk assessment is conducted prior to commencing any works within confined spaces.
- Ensure the stormwater drains throughout the site are appropriately signposted. Ensure the signage complies with AS 2865:2009 Confined Spaces, Section 3.2.2. Refer to **Appendix D** for examples of confined space safety signage.
- Ensure all staff and contractors working within areas containing confined spaces at the site are provided with appropriate information, instruction and training to ensure they are able to work safely in these areas. It is recommended that this be managed within the site induction.
- Although it was not possible to access the spaces at the time of the inspection, they have been
  deemed to be a confined space (in order to take a precautionary approach) and should continue to
  be treated as such until confirmed as otherwise.
- Avoid entering the confined spaces if possible e.g. conduct cleaning/maintenance activities from outside etc.
- Ensure that the person responsible for the confined space work issues an entry permit prior to any persons entering the confined space.
- Ensure task specific emergency rescue procedures and equipment are available and readily accessible during any confined space work.
- All works and access in relation to confined spaces must be undertaken in accordance with the Work Health and Safety Regulation 2017 (NSW), the Code of Practice: Confined Spaces (SafeWork NSW, 2019) and AS 2865:2009 Confined Spaces.
- Tetra Tech is able to assist the client to implement the above recommended actions.

#### 1. INTRODUCTION

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by Mirvac Real Estate Pty Ltd (the client) to conduct a confined spaces assessment at the business park, located at 39 Herbert Street St Leonards, NSW 2065. Phoebe Quessy of Tetra Tech carried out the audit on 20<sup>th</sup> February 2023. For the purpose of this audit, the principal definition of a confined space is that described in the *Work Health and Safety Regulation 2017 (NSW)*.

Identified confined spaces were not entered by personnel at the time of the assessment, therefore the risk assessments contained in this report are limited to general observations made. A more detailed task specific risk assessment is required prior to entering any confined spaces identified in this report.

#### 1.1 Site Description

The site consisted of a business park (approximately 27,000m²) office building. The building was occupied at the time of the assessment.

#### 2. SCOPE

The objective of the Confined Spaces Assessment was to identify and assess confined spaces at the site, and manage the associated risks to the health and safety of site occupants (including workers, students, visitors and contractors). The assessment included a physical inspection of accessible areas of the site, as well as discussions with relevant site personnel, and a review of relevant systems/documentation.

#### 2.1 Inaccessible Areas

The following areas were not accessible during the inspection:

- Within confined spaces, voids and ceiling spaces.
- Within plant and machinery.
- Lift shafts and pits.
- Below cars and stored items.
- · Occupied rooms and tenanted areas.
- · Roof areas.

#### 3. WHAT IS A CONFINED SPACE?

The Work Health & Safety Regulation 2017 (NSW) defines a confined space as an enclosed or partially enclosed space that:

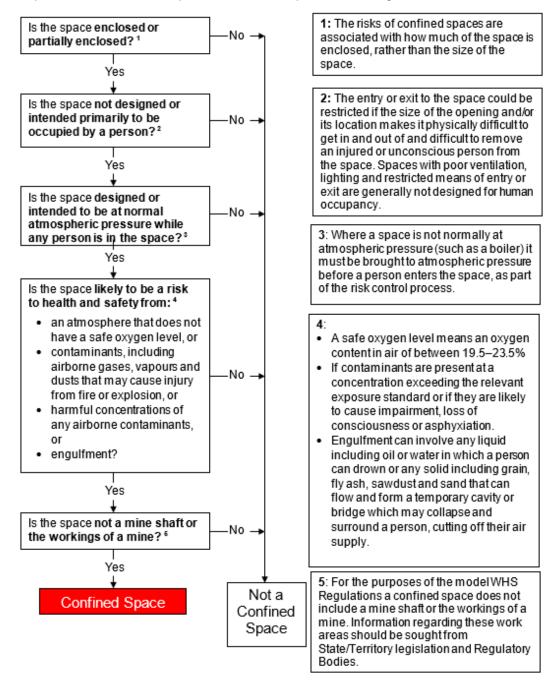
- a) is not designed or intended primarily to be occupied by a person; and
- is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space, and
- c) is or is likely to be a risk to health and safety from:
  - i. an atmosphere that does not have a safe oxygen level; or
  - ii. contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or
  - iii. harmful concentrations of any airborne contaminants, or
  - iv. engulfment.

Note: The above definition does not include a mine shaft or the workings of a mine.

Section 66 (1) of the *Work Health and Safety Regulations 2017 (NSW)* states that 'a PCBU must manage risks to health and safety associated with a confined space at a workplace including risks associated with entering, working in, on or in the vicinity of the confined space (including a risk of a person inadvertently entering the confined space'.

Section 62 (2) of the Regulations also state that the requirements relating to confined spaces within the Regulations refer to confined spaces that are under the PCBUs management or control. For this reason, confined spaces that are identified on site but that fall under the management or control of another PCBU have not been included in this report. Examples of such confined spaces include storm water drains and sewer pits (managed by the local water authority), and underground electrical substations (managed by the local power authority).

Further explanation of a confined space definition is explained in the figure below:



Source: Compliance Code: Confined Spaces 2019

#### 4. RISK ASSESSMENT

Risk assessments have been conducted for each confined space identified on site. The risk assessments considered the nature of the confined space, including its location, frequency of entry, work performed, the nature of the potential hazards present and the controls currently in place. Each identified potential hazard was risk assessed, based on the likelihood of an event occurring, and the consequence or outcome of that event in general terms. An overall risk rating of Low, Medium, High, Very High or Extreme was then assigned to each hazard using the provided risk assessment matrix (refer to Risk Matrix below). The assessment of the risk is a subjective assessment and is to be used for guidance purposes in relation to selecting and implementing corrective actions.

Risk Matrix								
	CONSEQUENCE							
LIKELIHOOD	Insignificant	Minor	Moderate	Major	Catastrophic			
LIKELIHOOD	(No injuries)	(First aid only)	(Medical treatment)	(Extensive injuries, loss of production)	(Fatality / permanent disability)			
Almost Certain								
(Expected in most circumstances)	Medium	High	Very High	Extreme	Extreme			
Likely								
(Will probably occur in most circumstances)	Medium	High	Very High	Extreme	Extreme			
Possible								
(Might occur at some time)	Low	Medium	High	Very High	Extreme			
Unlikely								
(Not likely to occur)	Low	Low	Medium	High	Very High			
Rare								
(May occur only in exceptional circumstances)	Low	Low	Medium	High	High			

Where the hazards associated with work in particular confined spaces are similar in nature, a group risk assessment has been prepared. Separate space specific risk assessments will be prepared for any confined spaces identified as having unique hazards or risks that are different to the group risk assessment.

Refer to **Appendix B** for confined space risk assessments.

#### FINDINGS

The following findings are based on the site inspection, discussions with site personnel, and review of relevant documentation:

- A total of 38 confined spaces were identified at the site.
- The majority of the spaces were appropriately signposted, however the stormwater drains throughout were not signposted.
- All confined spaces appeared to be appropriately secured from unauthorised access at the time of the assessment.
- The Mirvac Confined Space Entry Permit was made available for review. This included a requirement for the isolation of plant and services associated with confined spaces prior to any entry occurring.

Note: Refer to Appendix A for the confined space register and Appendix C for photographs.

#### RECOMMENDED ACTIONS

The following actions are recommended, based on the above findings:

- Ensure a task specific risk assessment is conducted prior to commencing any works within confined spaces.
- Ensure the stormwater drains throughout the site are appropriately signposted. Ensure the signage complies with AS 2865:2009 Confined Spaces, Section 3.2.2. Refer to Appendix D for examples of confined space safety signage.
- Ensure all staff and contractors working within areas containing confined spaces at the site are
  provided with appropriate information, instruction and training to ensure they are able to work safely
  in these areas. It is recommended that this be managed within the site induction.
- Although it was not possible to access the spaces at the time of the inspection, they have been
  deemed to be a confined space (in order to take a precautionary approach) and should continue to
  be treated as such until confirmed as otherwise.
- Avoid entering the confined spaces if possible e.g. conduct cleaning/maintenance activities from outside etc.
- Ensure that the person responsible for the confined space work issues an entry permit prior to any
  persons entering the confined space.
- Ensure task specific emergency rescue procedures and equipment are available and readily accessible during any confined space work.
- All works and access in relation to confined spaces must be undertaken in accordance with the Work Health and Safety Regulation 2017 (NSW), the Code of Practice: Confined Spaces (SafeWork NSW, 2019) and AS 2865:2009 Confined Spaces.
- Tetra Tech is able to assist the client to implement the above recommended actions.

#### 7. REFERENCES

- Work Health and Safety Act 2011 (NSW).
- Work Health and Safety Regulation 2017 (NSW).
- Code of Practice: Confined Spaces (SafeWork NSW, 2019).
- Australian Standard 2865:2009 Confined Spaces.

#### 8. LIMITATIONS

This report and the associated services performed by Tetra Tech are in accordance with the scope of services set out in the contract between Tetra Tech and the Client. The scope of services was defined by the requests of the Client, by the time and budgetary constraints imposed by the Client, and by the availability of access to the site.

Tetra Tech derived the data in this report primarily from visual inspections, examination of available records, and interviews with individuals with relevant information about the site. In preparing this report, Tetra Tech has relied upon, and presumed accurate, certain information (or absence thereof) provided by government authorities, the Client and others identified herein. Except as otherwise stated in the report, Tetra Tech has not attempted to verify the accuracy or completeness of any such information.

No warranty, undertaking, or guarantee, whether expressed or implied, is made with respect to the data reported or to the findings, observations, and recommendations expressed in this report. Furthermore, such data, findings, observations, and recommendations are based solely upon existence at the time of the assessment. The passage of time, manifestation of latent conditions or impacts of future events (e.g. changes in legislation, scientific knowledge, land uses, etc.) may require further investigation at the site with subsequent data analysis and re-evaluation of the findings, observations, and recommendations expressed in this report.

This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the provisions of the agreement between Tetra Tech and the Client. Tetra Tech accepts no liability or responsibility whatsoever and expressly disclaims any responsibility for or in respect of any use of or reliance upon this report by any third party or parties. It is the responsibility of the Client to accept if the Client so chooses any recommendations contained within and implement them in an appropriate, suitable and timely manner.

### APPENDIX A: CONFINED SPACES REGISTER

Tetra Tech Coffey SYDEN228268 – 39 Herbert Street, St Leonards 17 April 2023

Confir	ned Spaces Register								
Space ID	e Type Level		Location / Comments	Secure	Signage	Dimensions	Risk Assessment	Photo	
001	Unknown Pit	G	Adjacent Units 5 and 6	Yes	Yes	Unknown	А	1	
002	Unknown Pit	G	Tower A, Parking By adjacent 50B	Yes	Yes	Unknown	А	2	
003	Grease Trap	G	Tower A, adjacent 49B	Yes	No	3.5m <sup>3</sup>	В	3	
004	Unknown Pit	G	Adjacent Unit 7	Yes	Yes	Unknown	А	4	
005	Stormwater Drain	G	Adjacent Unit 7	Yes	No	Unknown	С	4	
006	Stormwater Drain	G	Adjacent Unit 7	Yes	No	Unknown	С	5	
007	Stormwater Drain	G	Adjacent Unit 9, Parking Bay 22	Yes	No	Unknown	С	6	
800	Unknown Pit	G	Adjacent Unit 12	Yes	Yes	Unknown	А	7	
009	Stormwater Drain	G	Adjacent Unit 12	Yes	No	Unknown	С	7	
010	Stormwater Drain	G	Adjacent Unit 20	Yes	No	Unknown	С	8	
011	Unknown Pit	G	Adjacent Unit 20	Yes	No	Unknown	А	9	
012	Unknown Pit	G	Adjacent Unit 19 on access road	Yes	No	Unknown	А	10	
013	Unknown Pit	G	Adjacent Unit 17	Yes	Yes	Unknown	А	11	
014	Stormwater Drain	G	Adjacent Unit 17	Yes	No	Unknown	С	11	
015	Stormwater Drain	G	Loading dock driveway to Unit 15	Yes	No	Unknown	С	12	
016	Stormwater Drain	G	Adjacent Units 18, 17 and 5, on road	Yes	No	Unknown	С	13	
017	Unknown Pit	G	Adjacent Units 18, 17 and 5, on road	Yes	Yes	Unknown	Α	13	

Space ID	Туре	Level	Location / Comments	Secure	Signage	Dimensions	Risk Assessment	Photo
018	Unknown Pit	G	Adjacent entrace to carpark, Units 17, 18 and 23	Yes	Yes	Unknown	А	14
019	Stormwater Drain	G	Adjacent entrace to carpark, Units 17, 18 and 23	Yes	No	Unknown	С	15
020	Unknown Pit		Adjacent Unit 17	Yes	Yes	Unknown	А	16
021	Stormwater Drain	G	Access way adjecent Unit 20	Yes	No	Unknown	С	17
022	Unknown Pit	G	Access way, adjaent Unit 3 roller door	Yes	Yes	Unknown	А	18
023	Stormwater Drain	G	Access way, adjaent Unit 3 roller door	Yes	No	Unknown	С	19
024- 025	Unknown Pit x 2	G	Access way bewteen Units 2 and 3	Yes	Yes	Unknown	А	20
026	Stormwater Drain	G	Access way bewteen Units 2 and 3	Yes	No	Unknown	С	20
027	Unknown Pit	G	Adjacent Unit 1, parking bay 14	Yes	No	Unknown	А	21
028	Stormwater Drain	G	Unit 3, adjacent parking bay 24	Yes	Yes	Unknown	С	22
029	Unknown Pit	G	Access road to carpark	Yes	Yes	Unknown	А	23
030	Stormwater Drain	G	Access road to carpark	Yes	No	Unknown	С	23
031- 033	Unknown Pit x 3	G	Behind carpark	Yes	Yes	Unknown	А	24
034	Stormwater Drain	G	Behind carpark	Yes	Yes	Unknown	С	24
035	Stormwater Drain	G	Carpark, Parking Bay 53	Yes	No	Unknown	С	25

Tetra Tech Coffey SYDEN228268 – 39 Herbert Street, St Leonards 17 April 2023

#### Confined Spaces Assessment

Confin	ed Spaces Register							
Space ID	Туре	Level	Location / Comments	Secure	Signage	Dimensions	Risk Assessment	Photo
036	Unknown Pit	G	Carpark, Parking Bay 52	Yes	No	Unknown	А	26
037	Stormwater Drain	G	Carpark, Parking Bay 39	Yes	No	Unknown	С	27
038	Stormwater Drain	G	Carpark, Parking Bay 8 and 62	Yes	No	Unknown	С	28

### APPENDIX B: CONFINED SPACE RISK ASSESSMENTS

Tetra Tech Coffey SYDEN228268 – 39 Herbert Street, St Leonards 17 April 2023

VES	Risk Assessment A: l	Inknow	n Pit				
(If the answer to A, B and at least one part of C is yes, then the space is a confined space and requires a risk assessment).  A is the space designed or intended primarily not to be occupied by a person?  YES  B. Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space?  C. Is the space likely to be a risk to health and safety from:  • an atmosphere that does not have a safe oxygen level?  • contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion?  • harmful concentrations of any airborne contaminants?  • engulfment?  Works to be completed:  Comments:  Access to space is restricted. No access gained during assessment.  Hazard Types  Risk Rating  Restricted entry and egress in an emergency  Coxygen deficiency whilst work in progress  Access to space is restricted. No access gained during assessment.  Hazard Types  Risk Rating  Restricted entry and egress in an emergency  Converse in an emergency  Build-up or excess of vapours such as hydrogen sulphide (H-S) or carbon monoxide (CO) to concentrations above the workplace exposure standards (WES)  Build-up or excess of vapours to within explosive limits  Build-up or excess of vapours such as hydrogen sulphide (H-S) or carbon monoxide (CO) to concentrations above the workplace exposure standards (WES)  Build-up of organic  Vapours to within explosive limits  Arborne dust  Continually monitor the atmosphere within the space during entry.  Ensure no limition sources are located within or introduced into the space.  Ariborne dust  Continually monitor the atmosphere within the space during entry.  Ensure no lightlion sources are located within or introduced into the space.  Ariborne dust  Continually monitor the atmosphere within the space during entry.  Ensure no lightlion sources are located within or introduced into the space.  Ariborne dust  Continually monitor the atmosphere within the space during entry.  Ensure no lightlion sources are located within or introduced into				YES			
A. Is the space designed or intended primarily not to be occupied by a person?  B. Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space?  C. Is the space likely to be a risk to health and safety from:  • an atmosphere that does not have a safe oxygen level?  • contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion?  • harmful concentrations of any airborne contaminants?  • negulfment?  Works to be completed:  Maintenance and inspection activities.  Comments:  Access to space is restricted. No access gained during assessment.  Hazard Types  Risk Rating  Restricted entry and egress in an emergency  Ensure the standby person remains in constant contact with person(s) entering the space.  Oxygen deficiency whilst work in progress  Wear a safety harness and remain connected to a lifeline at all times.  Ensure the standby person remains in constant contact with person(s) entering the space.  Oxygen deficiency whilst work in progress  Ensure the standby person remains in constant contact with person(s) entering the space.  Oxygen deficiency whilst work in progress  Ensure the standby person remains in constant contact with person(s) entering the space.  Only enter the space if required.  Continually monitor the atmosphere within the space during entry.  Ensure on ignition sources are located within or introduced into the space.  Airborne dust  Continually monitor the atmosphere within the space prior to entering. Purge and ventilate the space if required.  Only enter the space if the concentration of any flammable vapours is less than 5% of its lower explosive limit.  Continually monitor the atmosphere within the space during entry.  Ensure no ignition sources are located within or introduced into the space.  Airborne dust  Concentrations above the WES  Radiation (non-ionising and ionising)  Noise generated at levels above 85 d8(A)  Uncontrolled introduction of substances (e.g.  Ensure no vehicles operate in the vicini	•		-	. 20			
B. Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space?  C. Is the space likely to be a risk to health and safety from:  • an atmosphere that does not have a safe oxygen level?  • contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion?  • harmful concentrations of any airborne contaminants?  • engulfment?  Works to be completed:  Maintenance and inspection activities.  Comments:  Access to space is restricted. No access gained during assessment.  Hazard Types  Risk Recommended Actions  Riskating  Restricted entry and egress in an emergency  Ensure the standby person remains in constant contact with person(s) entering the space.  Oxygen deficiency whilst work in progress  Didd-up or excess of vapours such as hydrogen sulphide (H <sub>2</sub> S) or carbon monoxide (CO) to concentrations above the workplace exposure standards (WES)  Build-up of organic vapours to within explosive limits  Airborne dust concentrations above the workplace exposure standards (WES)  Airborne dust concentrations above the WES  Radiation (non-ionising and ionising)  Noise generated at levels above 858 (A)  Uncontrolled introduction of substances (e.g.)  Elsolate all services within the space.  Ensure no ignition sources are located within or introduced into the space.  No action required.  No action required.  No action required.  No action required.  Elsolate all services within the space.  Ensure no vehicles operate in the vicinity of the entry.  Ensure no vehicles operate in the vicinity of the entry.  Ensure no vehicles operate in the vicinity of the entry.  Ensure no vehicles operate in the vicinity of the entry.  Ensure no vehicles operate in the vicinity of the entry.  Ensure no vehicles operate in the vicinity of the entry.  Ensure no vehicles operate in the vicinity of the entry.			, pair c. o io jec, mon me opaco io a commet opaco				
C. Is the space likely to be a risk to health and safety from:  • an atmosphere that does not have a safe oxygen level?  • contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion?  • harmful concentrations of any airborne contaminants?  • engulfment?  Works to be completed:  Comments:  Access to space is restricted. No access gained during assessment.  Hazard Types  Risk Rating  Restricted entry and egress in an emergency  Coxygen deficiency whilst work in progress  Build-up or excess of vapours such as hydrogen sulphide (H₂S) or carbon monoxide (CO) to concentrations above the workplace exposure standards (WES)  Build-up of organic vapours to within explosive limits  Airborne dust capours (WES)  Radiation (non-ionising and ionising)  Noise generated at levels above 8 steam, water, gases etc.)  Bould-up conditions above the west and sulphide (non-ionising)  Airborne dust concentrations above the WES  Radiation (non-ionising)  Noise generated at levels above 8 steam, water, gases etc.)	A. Is the space designed or intended primarily not to be occupied by a person?  YES						
an atmosphere that does not have a safe oxygen level?     contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion?     harmful concentrations of any airborne contaminants?     harmful concentrations     Access to space is restricted. No access gained during assessment.  Hazard Types     Risk Recommended Actions  Restricted entry and egress in an emergency      Risk Rating  Restricted entry and egress in an emergency      Wear a safety harness and remain connected to a lifeline at all times.  Ensure the standby person remains in constant contact with person(s) entering the space.  I Monitor the atmosphere within the space prior to entering. Only enter the space if required.  Continually monitor the atmosphere within the space during entry.  Ensure the space if required.  Continually monitor the atmosphere within the space during entry.  Ensure no lightly the space if required.  Only enter the space if the concentration of any flammable vapours is less than 5% of its lower explosive limit.  Continually monitor the atmosphere within the space during entry.  Ensure no lightly monitor the atmosphere within the space during entry.  Ensure no lightly monitor the atmosphere within the space during entry.  Ensure no lightly monitor the atmosphere within the space in the concentration of any flammable vapours is less than 5% of its lower explosive limit.  Continually monitor the atmosphere within the space during entry.  Ensure no lightly monitor the atmosphere within the space in the concentration of any flammable vapours is less than 5% of its lower explosive limit.  Continua		r intended	to be, at normal atmospheric pressure while any	YES			
contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion?     harmful concentrations of any airborne contaminants?     harmful concentrations of any airborne contaminants?  West observed.  Maintenance and inspection activities.  Recomments:  Access to space is restricted. No access gained during assessment.  Restricted entry and egress in an emergency  Restricted entry and egress in an emergency  Ensure the standby person remains in constant contact with person(s) entering the space.  Continually person remains in constant contact with person(s) entering the space.  Monitor the atmosphere within the space prior to entering. Only enter the space if required.  Continually monitor the atmosphere within the space during entry.  Build-up or excess of vapours such as hydrogen sulphide (H-S) or carbon monoxide (CO) to concentrations above the workplace exposure standards (WES)  Build-up of organic vapours to within explosive limits  Build-up of organic vapours to within explosive limits  Continually monitor the atmosphere within the space prior to entering. Purge and ventilate the space if required.  Only enter the space if the concentration of any flammable vapours is less than 5% of its lower explosive limit.  Continually monitor the atmosphere within the space during entry.  Ensure no lignition sources are located within or introduced into the space.  No action required.  Purge and ventilate the space if the concentration of any flammable vapours is less than 5% of its lower explosive limit.  Continually monitor the atmosphere within the space if required.  No action required.  No action required.  No	C. Is the space likely to be	a risk to h	nealth and safety from:				
from fire or explosion?  In harmful concentrations of any airborne contaminants?  In harmful concentrations above the WES  Airborne dust concentrations above the WES  Ariborne d	an atmosphere that of	loes not h	ave a safe oxygen level?	YES			
works to be completed:  Comments: Access to space is restricted. No access gained during assessment.  Risk Rating Restricted entry and egress in an emergency  Element of the standby person remains in constant contact with person(s) entering the space.  Oxygen deficiency whilst work in progress  Oxygen deficiency whilst work in progress  Element of the standby person remains in constant contact with person(s) entering the space.  Oxygen deficiency whilst work in progress  Element of the standby person remains in constant contact with person(s) entering the space.  Oxygen deficiency whilst work in progress  Element of the standby person remains in constant contact with person(s) entering the space.  Oxygen deficiency whilst work in progress  Element of the standby person remains in constant contact with person(s) entering the space if oxygen levels are within the safe range (19.5% to 23.5%).  Ventilate the space if required. Continually monitor the atmosphere within the space during entry.  Element of the space if required. Continually monitor the atmosphere within the space during entry.  Element of the space if required. Continually monitor the atmosphere within the space during entry.  Element of the space if required in the space if required. Only enter the space if the concentration of any flammable vapours is less than 5% of its lower explosive limit. Continually monitor the atmosphere within the space during entry. Ensure no ignition sources are located within or introduced into the space.  Airborne dust concentrations above the WES Radiation (non-ionising and ionising) Noise generated at levels above 85 dB(A)  Uncontrolled introduction of substances (e.g. stand and substances (e.g. stand	from fire or explosion	?					
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Hazard Types	Risk Rating	Recommended Actions
Engulfment	ш	Isolate all inflow pipes into the space. Wear a safety harness and remain connected to a lifeline at all times.
Manual handling of covers, lowering equipment into pits	M	Ensure a two-person lift or lifting device is used when lifting or removing covers. Use a winch to lower equipment into the space.
Mechanical hazards (e.g. entanglement, crushing, cutting, etc.)	M	Isolate all plant within the space.
Skin contact with hazardous substances and surface contaminants	Η	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear).
Slips and trips	Ι	Wear slip resistant boots.
Falls from height	VH	Wear a safety harness and remain connected to a lifeline at all times.
Electrical hazards	M	Portable electrical equipment should be protected through an RCD, located outside of the space.
Biological hazards (e.g. E-coli)	I	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear). Wash hands and face after exiting the space.
Lack of lighting	Н	Use appropriate and safe temporary lighting and/or torch within the space.
Heat and cold stress	Ĺ	No action required.

#### **General Recommendations**

- Avoid entering the confined space if possible e.g. conduct cleaning activities from outside etc.
- Ensure access to the confined space remains secure at all times.
- Only authorised personnel are to access the confined space.
- All works and access in relation to confined spaces must be undertaken in accordance with AS 2865-2009.
- Ensure that the person responsible for the confined space work issues an entry permit prior to any persons entering the confined space.
- Ensure contractors are appropriately trained to undertake confined space entry and standby duties.
- Ensure site specific emergency rescue procedures and equipment are available and readily accessible during any confined space work.
- Ensure contractor safe work method statement (SWMS) addresses working at heights issues.
- Ensure suitable PPE is available and appropriately maintained.
- Ensure a task specific risk assessment is conducted within the space prior to commencing any works.
- Although it was not possible to access the space at the time of the assessment, it has been deemed to be a confined space (in order to take a precautionary approach) and should continue to be treated as such until confirmed as otherwise.

Risk Assessment B: Grease Trap  Does the space meet the requirements of a Confined Space?  (If the answer to A, B and at least one part of C is yes, then the space is a confined space and requires a risk assessment).  A. Is the space designed or intended primarily not to be occupied by a person?  PES  B. Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space?  C. Is the space likely to be a risk to health and safety from:  • an atmosphere that does not have a safe oxygen level?  • contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion?  • harmful concentrations of any airborne contaminants?  **YES  **Works to be completed:**  Cleaning and maintenance activities.  **Comments:**  Access within the space was not available at the time of assessment.  **Razard Types  Risk Rating  Restricted entry and egress in an emergency  Acygen deficiency whilst work in progress  In work in progress  **Work in progress**  A memory of the terminant of the atmosphere within the space prior to entering.  Only enter the space if oxygen levels are within the space during entry.  Build-up or excess of vapours such as hydrogen sulphide (H <sub>2</sub> S). Ventilate the space if required.  Continually monitor the atmosphere within the space during entry.  Build-up or organic vapours to within explosive limits  Alirborne dust concentrations above the workplace exposure standards (WES)  Build-up of organic vapours to within explosive limits  Alirborne dust concentrations above the WES  Radiation (non-ionising and ionising)  No action required.  VH  No action required.  VH  No action required.  VH  Isolate all inflow pipes into the space.  Wear a safety harness and remain connected to a lifeline at all times.  Isolate all inflow pipes into the space.  Wear a safety harness and remain connected to a lifeline at all times.  No action required.  VH  Isolate all inflow pipes into the space.  Wear a safety harness and remain connected to a lifeline at all tim	Bick Accessment B.	Crosso -	Tran				
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C. Is the space likely to be a risk to health and safety from:  • an atmosphere that does not have a safe oxygen level?  • contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion?  • harmful concentrations of any airborne contaminants?  • engulfment?  Works to be completed:  Comments:  Access within the space was not available at the time of assessment.  Hazard Types  Risk Rating  Restricted entry and egress in an emergency  The space was not available at the time of assessment.  Hazard Types  Risk Rating  Restricted entry and egress in an emergency  The work in progress  Work to be completed:  Oxygen deficiency whilst work in progress  What a safety harness and remain connected to a lifeline at all times.  Ensure the standby person remains in constant contact with person(s) entering the space.  Oxygen deficiency whilst work in progress  What is a safety harness and remain connected to a lifeline at all times.  Ensure the standby person remains in constant contact with person(s) entering the space.  Only enter the space if required.  Continually monitor the atmosphere within the space during entry.  What is a space if required.  Continually monitor the atmosphere within the space during entry.  Purge and ventilate the space if required.  Continually monitor the atmosphere within the space during entry.  Purge and ventilate the space if required.  Continually monitor the atmosphere within the space during entry.  No action required.  No action required.  No action required.  Wear a safety harness and remain connected to a lifeline at all times.  In No action required.  No action required.  No action required.  No action required.	A. Is the space designed of	r intended	d primarily not to be occupied by a person?	YES			
an atmosphere that does not have a safe oxygen level? contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion? harmful concentrations of any airborne contaminants?  Norks to be completed:  Cleaning and maintenance activities.  Comments: Access within the space was not available at the time of assessment.  Restricted entry and egress in an emergency  Restricted entry and egress in an emergency  H Wear a safety harness and remain connected to a lifeline at all times. Ensure the standby person remains in constant contact with person(s) entering the space.  Oxygen deficiency whilst work in progress  VH Monitor the atmosphere within the space prior to entering. Only enter the space if oxygen levels are within the space during entry.  Build-up or excess of vapours such as hydrogen sulphide (H <sub>2</sub> S) or carbon monoxide (CO) to concentrations above the workplace exposure standards (WES)  Build-up of organic vapours to within explosive limits  Airborne dust concentrations above the WES  Radiation (non-ionising and ionising)  Noise generated at levels above 85 d8(A)  Uncontrolled introduction of substances (e.g. steam, water, gases etc.)  Engulfment  VH Isolate all inflow pipes into the space. Wear a safety harness and remain connected to a lifeline at all times.  No action required.		or intended	to be, at normal atmospheric pressure while any	YES			
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from fire or explosion?  • harmful concentrations of any airborne contaminants?  • engulfment?  Works to be completed:  Comments:  Access within the space was not available at the time of assessment.  Hazard Types  Risk Rating  Restricted entry and egress in an emergency  Coygen deficiency whilst work in progress  Work in progress  Whilst work in progress and remain connected to a lifeline at all times.  Continually monitor the atmosphere within the space during entry.  Whilst work in progress we within the space within the space within the space within the space during entry.  No action required.  No action required.  Whilst work in progress  Whilst work in progress and remain connected to a lifeline at all times.  No action required.  Whilst work in progress and remain connected to a lifeline at all times.  Seam, water, gases etc.)  Whilst work in progress and remain connected to a lifeline at all times.  Whilst work in progress and remain connected to a lifeline at all times.  No action required.  Whilst work in progress and remain connected to a lifeline at all times.	<ul> <li>an atmosphere that of</li> </ul>	does not h	ave a safe oxygen level?				
• harmful concentrations of any airborne contaminants?     • engulfment?  Works to be completed: Cleaning and maintenance activities.  Access within the space was not available at the time of assessment.  Hazard Types Risk Rating Restricted entry and egress in an emergency  Work in progress  Restricted entry and egress in an emergency  Work in progress  What is a safety harness and remain connected to a lifeline at all times. Ensure the standby person remains in constant contact with person(s) entering the space.  Oxygen deficiency whilst work in progress  What is a safety harness and remain connected to a lifeline at all times. Ensure the standby person remains in constant contact with person(s) entering the space.  Only enter the space if oxygen levels are within the safe range (19.5% to 23.5%). Ventilate the space if required. Continually monitor the atmosphere within the space during entry.  Build-up or excess of vapours such as hydrogen sulphide (H <sub>2</sub> S) or carbon monoxide (CO) to concentrations above the workplace exposure standards (WES)  Build-up of organic vapours to within explosive limits Airborne dust concentrations above the WES  Radiation (non-ionising and ionising) Alien and ionising and i			ne gases, vapours and dusts, that may cause injury	NO			
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work in progress  Only enter the space if oxygen levels are within the safe range (19.5% to 23.5%). Ventilate the space if required. Continually monitor the atmosphere within the space during entry.  Build-up or excess of vapours such as hydrogen sulphide (H₂S) or carbon monoxide (CO) to concentrations above the workplace exposure standards (WES)  Build-up of organic vapours to within explosive limits Airborne dust concentrations above the WES  Radiation (non-ionising and ionising)  Noise generated at levels above 85 dB(A)  Uncontrolled introduction of substances (e.g. steam, water, gases etc.)  Engulfment  VH  Isolate all inflow pipes into the space.  Manual handling of covers, lowering equipment into pits  Mechanical hazards (e.g. entanglement, crushing,		\					
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Build-up or excess of vapours such as hydrogen sulphide (H <sub>2</sub> S) or carbon monoxide (CO) to concentrations above the workplace exposure standards (WES)  Build-up of organic vapours to within explosive limits  Airborne dust concentrations above the WES  Radiation (non-ionising and ionising)  Noise generated at levels above 85 dB(A)  Uncontrolled introduction of substances (e.g. steam, water, gases etc.)  Engulfment  Monitor the atmosphere within the space prior to entering. Purge and ventilate the space if required.  Continually monitor the atmosphere within the space during entry.  No action required.  No action required.  No action required.  No action required.  Isolate all services within the space.  Wear a safety harness and remain connected to a lifeline at all times.  Manual handling of covers, lowering equipment into pits  Mechanical hazards (e.g. entanglement, crushing,			· · · · · · · · · · · · · · · · · · ·	during			
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Build-up of organic vapours to within explosive limits  Airborne dust concentrations above the WES  Radiation (non-ionising and ionising)  Noise generated at levels above 85 dB(A)  Uncontrolled introduction of substances (e.g. steam, water, gases etc.)  Engulfment  Manual handling of covers, lowering equipment into pits  Mechanical hazards (e.g. entanglement, crushing,							
vapours to within explosive limits  Airborne dust concentrations above the WES  Radiation (non-ionising and ionising)  Noise generated at levels above 85 dB(A)  Uncontrolled introduction of substances (e.g. steam, water, gases etc.)  Engulfment  Wanual handling of covers, lowering equipment into pits  Mechanical hazards (e.g. entanglement, crushing, entanglement,		L	No action required.				
Airborne dust concentrations above the WES  Radiation (non-ionising and ionising)  Noise generated at levels above 85 dB(A)  Uncontrolled introduction of substances (e.g. steam, water, gases etc.)  Engulfment  WH  Isolate all inflow pipes into the space.  Wear a safety harness and remain connected to a lifeline at all times.  Manual handling of covers, lowering equipment into pits  Mechanical hazards (e.g. entanglement, crushing,		_	The donor to quitous				
concentrations above the WES  Radiation (non-ionising and ionising)  Noise generated at levels above 85 dB(A)  Uncontrolled introduction of substances (e.g. steam, water, gases etc.)  Engulfment  Manual handling of covers, lowering equipment into pits  Mechanical hazards (e.g. entanglement, crushing,							
Radiation (non-ionising and ionising)  Noise generated at levels above 85 dB(A)  Uncontrolled introduction of substances (e.g. steam, water, gases etc.)  Engulfment  Manual handling of covers, lowering equipment into pits  Mechanical hazards (e.g. entanglement, crushing,		L	No action required.				
Radiation (non-ionising and ionising)  Noise generated at levels above 85 dB(A)  Uncontrolled introduction of substances (e.g. steam, water, gases etc.)  Engulfment  WH  Isolate all services within the space.  VH  Isolate all inflow pipes into the space.  Wear a safety harness and remain connected to a lifeline at all times.  Manual handling of covers, lowering equipment into pits  Mechanical hazards (e.g. entanglement, crushing,							
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above 85 dB(A)  Uncontrolled introduction of substances (e.g. steam, water, gases etc.)  Engulfment  VH  Isolate all services within the space.  VH  Isolate all inflow pipes into the space.  Wear a safety harness and remain connected to a lifeline at all times.  Manual handling of covers, lowering equipment into pits  Mechanical hazards (e.g. entanglement, crushing,	and ionising)		'				
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Steam, water, gases etc.)  Engulfment  VH  Isolate all inflow pipes into the space. Wear a safety harness and remain connected to a lifeline at all times.  Manual handling of covers, lowering equipment into pits  Mechanical hazards (e.g. entanglement, crushing,	Uncontrolled introduction	VH	Isolate all services within the space.				
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covers, lowering equipment into pits  Mechanical hazards (e.g. Long action required. entanglement, crushing,			·	<b>o</b> at			
equipment into pits  Mechanical hazards (e.g. L No action required. entanglement, crushing,							
Mechanical hazards (e.g. L No action required. entanglement, crushing,							
entanglement, crushing,			No action required				

Hazard Types	Risk Rating	Recommended Actions
Skin contact with	Н	Wear appropriate PPE (e.g. gloves, long sleeve shirt and
hazardous substances and surface contaminants		pants, boots and eye wear).
Slips and trips	Н	Wear slip resistant boots.
Falls from height	L	No action required.
Electrical hazards	M	Portable electrical equipment should be protected through an RCD, located outside of the space.
Biological hazards (e.g.	M	Wear appropriate PPE (e.g. gloves, long sleeve shirt and
E-coli)		pants, boots and eye wear).
		Wash hands and face after exiting the space.
Lack of lighting	M	Use appropriate and safe temporary lighting and/or torch
		within the space.
Heat and cold stress	Ĺ	No action required.

#### **General Recommendations**

- Avoid entering the confined space if possible e.g. conduct cleaning activities from outside etc.
- Ensure access to the confined space remains secure at all times.
- Only authorised personnel are to access the confined space.
- All works and access in relation to confined spaces must be undertaken in accordance with AS 2865-2009.
- Ensure that the person responsible for the confined space work issues an entry permit prior to any persons entering the confined space.
- Ensure contractors are appropriately trained to undertake confined space entry and standby duties.
- Ensure site specific emergency rescue procedures and equipment are available and readily accessible during any confined space work.
- Ensure suitable PPE is available and appropriately maintained.
- Ensure a task specific risk assessment is conducted within the space prior to commencing any works.
- Although it was not possible to access the space at the time of the assessment, it has been
  deemed to be a confined space (in order to take a precautionary approach) and should continue
  to be treated as such until confirmed as otherwise.

Risk Assessment C: S	Stormwa	ater Drain				
		ents of a Confined Space?	YES			
•		•	ILS			
(If the answer to A, B and at least one part of C is yes, then the space is a confined space and requires a risk assessment).						
D. Is the space designed of	r intended	d primarily not to be occupied by a person?	YES			
E. Is the space designed of person is in the space?	r intended	d to be, at normal atmospheric pressure while any	YES			
F. Is the space likely to be	a risk to h	nealth and safety from:				
an atmosphere that of	does not h	ave a safe oxygen level?	YES			
from fire or explosion	?	ne gases, vapours and dusts, that may cause injury airborne contaminants?	NO NO			
<ul><li>engulfment?</li></ul>	•		YES			
Works to be completed:		ance and inspection activities.				
Comments:	Access t	to space is restricted. No access gained during assess	ment.			
Hazard Types	Risk Rating	Recommended Actions				
Restricted entry and egress in an emergency	VH	Wear a safety harness and remain connected to a lift all times.  Ensure the standby person remains in constant contains and the standard person remains in constant contains.				
Oxygen deficiency whilst work in progress	E	person(s) entering the space.  Monitor the atmosphere within the space prior to entering. Only enter the space if oxygen levels are within the safe range (19.5% to 23.5%).  Ventilate the space if required. Continually monitor the atmosphere within the space during entry.				
Build-up or excess of vapours such as hydrogen sulphide (H <sub>2</sub> S) or carbon monoxide (CO) to concentrations above the workplace exposure standards (WES)	Ι	Monitor the atmosphere within the space prior to enti- Purge and ventilate the space if required. Continually monitor the atmosphere within the space entry.	_			
Build-up of organic vapours to within explosive limits	Ħ	Monitor the atmosphere within the space prior to entering. Purge and ventilate the space if required. Only enter the space if the concentration of any flammable vapours is less than 5% of its lower explosive limit. Continually monitor the atmosphere within the space during entry. Ensure no ignition sources are located within or introduced into the space.				
Airborne dust concentrations above the WES	L	No action required.				
Radiation (non-ionising and ionising)	L	No action required.				
Noise generated at levels above 85 dB(A)	L	No action required.				
Uncontrolled introduction of substances (e.g. steam, water, gases etc.)	E	Isolate all services within the space. Ensure no vehicles operate in the vicinity of the entry Ensure the standby person is monitoring external we conditions and any other factors that could impact the confined space.	ather			

Hazard Types	Risk Rating	Recommended Actions
Engulfment	ш	Isolate all inflow pipes into the space. Wear a safety harness and remain connected to a lifeline at all times.
Manual handling of covers, lowering equipment into pits	M	Ensure a two-person lift or lifting device is used when lifting or removing covers. Use a winch to lower equipment into the space.
Mechanical hazards (e.g. entanglement, crushing, cutting, etc.)	L	Isolate all plant within the space.
Skin contact with hazardous substances and surface contaminants	M	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear).
Slips and trips	Н	Wear slip resistant boots.
Falls from height	VH	Wear a safety harness and remain connected to a lifeline at all times.
Electrical hazards	M	Portable electrical equipment should be protected through an RCD, located outside of the space.
Biological hazards (e.g. E-coli)	I	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear). Wash hands and face after exiting the space.
Lack of lighting	Η	Use appropriate and safe temporary lighting and/or torch within the space.
Heat and cold stress	L	No action required.

#### **General Recommendations**

- Avoid entering the confined space if possible e.g. conduct cleaning activities from outside etc.
- Ensure access to the confined space remains secure at all times.
- Only authorised personnel are to access the confined space.
- All works and access in relation to confined spaces must be undertaken in accordance with AS 2865-2009.
- Ensure that the person responsible for the confined space work issues an entry permit prior to any persons entering the confined space.
- Ensure contractors are appropriately trained to undertake confined space entry and standby duties.
- Ensure site specific emergency rescue procedures and equipment are available and readily accessible during any confined space work.
- Ensure contractor safe work method statement (SWMS) addresses working at heights issues.
- Ensure suitable PPE is available and appropriately maintained.
- Ensure a task specific risk assessment is conducted within the space prior to commencing any works.
- Although it was not possible to access the space at the time of the assessment, it has been
  deemed to be a confined space (in order to take a precautionary approach) and should continue
  to be treated as such until confirmed as otherwise.

## APPENDIX C: PHOTOGRAPHS



Photo 01. Adjacent Units 5 and 6, unknown pit



**Photo 02.** Tower A, Parking By adjacent 50B, unknown pit



Photo 03. Tower A, adjacent 49B, grease trap



**Photo 04.** Adjacent Unit 7, stormwater drain and unknown pit



Photo 05. Adjacent Unit 7, stormwater drain



**Photo 06.** Adjacent Unit 9, Parking Bay 22, stormwater drain



**Photo 07.** Adjacent Unit 12, stormwater drain and unknown pit



Photo 08. Adjacent Unit 20, stormwater drain

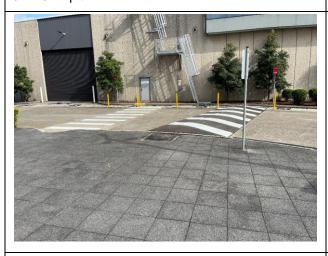


Photo 09. Adjacent unit 20, unknown pit



**Photo 10.** Adjacent Unit 19 on access road, unknown pit



**Photo 11.** Adjacent Unit 17, unknown pit and stormwater drain



**Photo 12.** Loading dock driveway to unit 15, stormwater drain



**Photo 13.** Adjacent units 18, 17 and 5, on road, stormwater drain and unknown pit



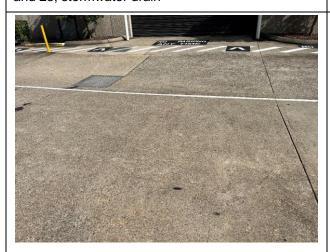
**Photo 14.** Adjacent entrace to carpark, units 17, 18 and 23, unknown pit



**Photo 15.** Adjacent entrace to carpark, units 17, 18 and 23, stormwater drain



Photo 16. Adjacent unit 17, unknown pit



**Photo 17.** Access way adjecent unit 20, stormwater drain



**Photo 18.** Access way, adjaent unit 3 roller door unknown pit



**Photo 19.** Access way, adjaent unit 3 roller door, stormwater drain



**Photo 20.** Access way bewteen units 2 and 3 stormwater drain and unknown pit



**Photo 21.** Adjacent Unit 1, parking bay 14, Unknown Pit



**Photo 22.** Unit 3, adjacent parking bay 24, Stormwater Drain



**Photo 23.** Access road to carpark, stormwater drain and unknown pit



**Photo 24.** Behind carpark, stormwater drain and unknown pits x 3



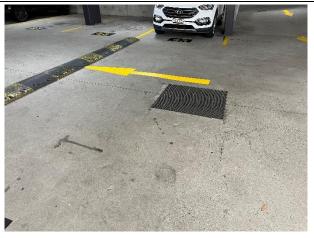
Photo 25. Carpark, Parking Bay 53, stormwater drain



Photo 26. Carpark, Parking Bay 52, unknown pit



**Photo 27.** Carpark, Parking Bay 39, stormwater drain



**Photo 28.** Carpark, Parking Bay 8 and 62, Stormwater Drain

## APPENDIX D: CONFINED SPACE SIGNAGE

**Example A:** Fixed confined space warning sign that can be established in a prominent position adjacent the confined space or on the access hatch.



**Example B:** Another fixed confined space warning sign that can be established in a prominent position adjacent the confined space or on the access hatch. The warning signage carries brief information that would need to be listed in the confined space entry permit.



**Example C:** Mobile confined space warning sign that can be established in a prominent position adjacent the confined space while works are in progress.

