GREENCAP
Going Further in Managing Risk

Level 2 / 11-17 Khartoum Road
North Ryde NSW 2113
Australia

CONFINED SPACE ASSESSMENT AND REGISTER

March 2020
J166526

Mirvac Retail
South Village, 580 Princes Highway, Kirrawee NSW

C107721: DH

Confined Space Assessment and Register

Mirvac Retail

South Village, 580 Princes Highway, Kirrawee NSW

EXECUTIVE SUMMARY

Purpose

This report presents the findings of a confined space assessment conducted of South Village located at 580 Princes Highway, Kirrawee NSW. The assessment was undertaken to identify potential confined spaces located on site. David Hauser (Team Manager – Property Risk) of Greencap carried out the assessment on Wednesday 29th January 2020 at the request of Tom Blanks (Facility Manager) of Mirvac Retail.

Scope

The Confined Space Risk Assessment involved a visual inspection of the site to identify confined spaces, identify the potential hazards associated with entering and working around those confined spaces, to conduct a risk assessment on each type of confined space and document the findings.

Findings

The following findings are a result of the site inspection and subsequent discussions with key site personnel:

- A total of eighty-one (81) confined spaces were identified at the site;
- Confined spaces identified on site were generally not observed to be labelled, however a limited number of confined spaces (e.g. water tanks) were labelled at the time of inspection;
- Access to all confined spaces identified on site appeared to be secured from unauthorised entry at the time of inspection; and
- On the day of the inspection it was not possible to access all potential confined spaces throughout the property. However, in order to take a precautionary approach these spaces have been categorised as "Unknown" which are deemed to be confined spaces and should be treated as such until a space specific risk assessment can be conducted.

Recommendations

As a result of the confined spaces risk assessment the following recommendations are proposed:

- All works and access in relation to confined spaces must be undertaken in accordance with *AS2865:2009 Confined Spaces*, *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and regulatory requirements;
- Ensure contractors conduct works within confined spaces in accordance with *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and a Confined Space Procedure and complete a 'Confined Space Entry Permit' prior to entry into confined spaces;
- Ensure contractors are appropriately trained to undertake confined space entry and standby duties in accordance with *AS2865:2009 Confined Spaces*, *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and regulatory requirements;
- Where necessary, workers entering a confined space shall be required to wear an approved breathing apparatus (e.g. SCBA, etc.) at all times in accordance with *Code of Practice: Confined Spaces (SafeWork NSW, 2019)*;
- Ensure contractor Safe Work Method Statements (SWMS) address confined spaces, contact with chemicals, working at heights, noise, traffic management and isolation of services;
- Care must be taken when lifting/removing covers, where applicable consider a two person lift.
- Ensure access to all confined spaces identified throughout the property are locked and secured to prevent unauthorised entry and, where reasonably practicable, labelled in accordance *with Section 3.2.2 of AS2865:2009 Confined Spaces*; and

- Should access to one or more of the spaces categorised as “unknown” be required, supplementary risk assessments must be conducted prior to entry to verify the specific hazards and levels of risk, and to identify the need for any additional or alternative controls.

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Confined Space Assessment and Register

Mirvac Retail

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Table of Contents

1. Introduction

This report presents the findings of a confined space assessment conducted of South Village located at 580 Princes Highway, Kirrawee NSW. The assessment was undertaken to identify potential confined spaces located on site. David Hauser (Team Manager – Property Risk) of Greencap carried out the assessment on Wednesday 29th January 2020 at the request of Tom Blanks (Facility Manager) of Mirvac Retail.

2. Scope

The Confined Space Risk Assessment involved a visual inspection of the site to identify confined spaces, identify the potential hazards associated with entering and working around those confined spaces, to conduct a risk assessment on each type of confined space and document the findings.

3. Methodology

3.1. Identification

Confined spaces were identified in accordance with Part 4.4 – Confined Spaces - of the *Work Health & Safety Regulation 2017 (NSW)* in consultation with *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and *Australian Standard AS2865:2009 – Confined Spaces*.

This assessment involved a site inspection and examination of the accessible locations that may be defined as potential confined spaces.

> *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
> b. 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
>
> but does not include a mine shaft or the workings of a mine.

Typical examples of confined spaces are:

- Sewer pits;
- Storm water drains
- Grease arrestors;
- Water tanks;
- Diesel tanks; and
- Silos.

During the site inspection, each confined space identified was recorded in the Confined Space Register included in **Appendix B**. This register is designed to facilitate the identification of those spaces that should be classified as a "confined space".

3.1.1. What is not a Confined Space?

The following kinds of workplace are generally not confined spaces for the purposes of the *WHS Regulation (NSW) 2017*:

- Places that are intended for human occupancy and have adequate ventilation, lighting and safe means of entry and exit, such as offices, plant / electrical switch rooms, and workshops;
- Some enclosed or partially enclosed spaces that at particular times have harmful airborne contaminants but are designed for a person to occupy, for example abrasive blasting or spray painting booths; and
- Enclosed or partially enclosed spaces that are designed to be occasionally occupied by a person if the space has a readily and conveniently accessible means of entry and exit via a doorway at ground level such as fumigated containers, cool store accessed by a forklift, etc.

3.1.2. Unknown Spaces

During an inspection certain spaces may be categorised onsite as "Unknown" as the dimensions and characteristics of theses spaces is unknown at the time of inspection. Greencap has documented the locations of the "Unknown" spaces throughout the site and these are listed in the Confined Space Register (**Appendix B**). Should access to one or more of the spaces categorised as "Unknown" be required, supplementary risk assessments must be conducted prior to entry to identify and assess specific hazards and levels of risk associated with the space, and to identify the need for any additional or alternative controls. No risk assessments will be conducted for the spaces categorised as "Unknown" due to the potential unknown hazards and risks within these spaces.

3.1.3. Restricted Spaces

A restricted space is a term that is not used in legislation but commonly used in industry to recognise a space that meets the first three requirements of a confined space being;

a. is not designed or intended primarily to be occupied by a person; and
b. is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space.

However, the space does not have 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.

Restricted spaces were not identified as part of this assessment and report. These types of spaces generally will require works to be undertaken within them from time to time, so by having a space recognised as a restricted space it identifies that an additional risk assessment must be undertaken prior to works being started as the works within the space may produce similar risks to those of a confined space requiring additional controls to be implemented similar to those required during a confined space entry (e.g. air monitoring, rescue procedures, stand by personnel etc.). An example may be a restricted space that requires welding to be undertaken or chemicals to be used within it. With the introduction of these hazards, there is now likely to be a health risk from contaminants that may cause injury from fire or explosion and/or introduce harmful concentrations of airborne contaminants. Confined Spaces controls and processes would be required for these works.

3.2. Risk Assessment

Following the identification of each type of confined space, a risk assessment was conducted which considered the nature of the confined space including the location, frequency of entry, work performed, the nature of the hazards and controls currently in place. Each of these hazards was assigned a consequence and likelihood value in accordance with the risk assessment classification presented in **Appendix C**. An overall risk rating of Low, Medium, High or Extreme was then assigned to each hazard using the Risk Assessment matrix in **Appendix A**. In addition, existing and recommended control actions for each hazard were presented in the risk assessment.

The types of hazards assessed for each confined space were derived from the *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and *AS2865:2009 Confined Spaces* and included oxygen concentration, airborne contaminant concentrations, operation of mechanical equipment within the confined space, introduction of steam and water, engulfment, electrical hazards, combustible gases, access and egress, thermal extremes, noise, radiation, environmental hazards, traffic management and manual handling.

For the purposes of assessing similar or like confined spaces of the same type and risk, a generic risk assessment has been performed in accordance with *Code of Practice: Confined Spaces (SafeWork NSW, 2019)*.

3.3. Documentation

The confined spaces identified at the site are listed in a Confined Space Register contained in **Appendix B**. The register also contains a reference to the corresponding risk assessment, contained in **Appendix C**.

It is important that all workers working in a confined space are made aware of the hazards present. It would be prudent to refer them to the Confined Space Register (located in **Appendix B**) and Confined Space Risk Assessments (located in **Appendix C**) prior to commencing work in a confined space.

Records of training in Confined Space Entry must be validated and records maintained as part of workers (i.e. employee/contractor) induction documentation.

3.4. Legislative Requirements

3.4.1. Risk Assessment

Under the *Work Health & Safety Regulation (NSW) 2017*, a written risk assessment needs to be carried out to manage the risks related to a confined space including risks associated with entering, and working in, or in the close vicinity of, a confined space.

The risk assessment must be carried out in accordance with the *Code of Practice: Confined Spaces (SafeWork NSW, 2019)*.

A single or generic risk assessment may be carried out for a class of confined spaces in a number of different work areas or workplaces where the confined spaces are the same. This will be only appropriate if all of the hazards being covered are the same. A risk assessment must be carried out on individual confined spaces if there is any likelihood that a worker may be exposed to greater, additional or different risks.

3.4.2. Permit to Work

An Employer must not allow a worker to enter a confined space to carry out work unless the person has been issued a confined space entry permit for the work.

The permit must be completed in writing by a competent person and:

- Specify the confined space to which the permit relates;
- Record the names of persons permitted to enter the confined space and the period of time that the work will be carried out;
- Set out risk control measures based on the risk assessment; and

- Contains a space for an acknowledgement that work in the confined space has been completed and all workers have left the space.

The permit must be kept until the work is completed or if a notifiable incident occurs, for at least two (2) years after the confined space work to which the permit relates is completed.

3.4.3. Working in Confined Spaces

Work in confined spaces must be carried out in accordance with the *Work Health & Safety Regulation (NSW) 2017*, the *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and following the guidelines of *AS2865:2009 Confined Spaces*.

3.4.4. Emergency Procedures

An Employer must ensure first aid and emergency and rescue procedures are established for entries into confined spaces. Procedures are to be practiced as necessary to ensure that they are efficient and effective. First aid and emergency rescue procedures must be initiated from outside the confined space as soon as practicable in an emergency.

The Employer must also ensure that openings for entry and exit are of sufficient size to allow emergency access, openings are not obstructed and any plant, equipment and personal protective equipment provided for first aid or emergency rescue are maintained in good working order.

4. Limitations

The nature of the hazards in most confined spaces is variable, depending on the presence of water or sludge and consequently it is recommended that all such locations be approached with caution prior to entry. Warnings should be provided to all workers prior to commencing work on any pit located on the site.

At the time of the assessment, a number of spaces were inaccessible and of unknown function, contents and geometry. No risk assessments were conducted for the spaces categorised as “Unknown” due to the unknown hazards within these spaces. Should access to one or more of these spaces be required, supplementary risk assessments must be conducted prior to entry to verify the specific hazards and levels of risk, and to identify the need for any additional or alternative controls.

Should any further potential confined spaces be identified on site, a risk assessment should be conducted in accordance with the above methodology and, if it is classified as a confined space, added to the register and appropriate controls implemented.

5. Discussions

The risks presented by the Confined Spaces at South Village, 580 Princes Highway, Kirrawee NSW, may be reduced by a number of control mechanisms put in place. These include:

- Confined Spaces Training for relevant employees (if any) and contracted personnel;
- Gas Detectors available on site;
- Confined Spaces Policy/Procedures (including emergency rescue procedures/plans);
- Confined Spaces Entry Permit; and/or
- Permit to Enter/Permit to Work.

All workers (i.e. employees and/or contractors) who may enter a confined space are to be made aware of the following during induction/training:

- Do not enter the space unless absolutely necessary. That is, conduct work from outside the space wherever possible;
- Do not enter the space unless a Confined Space Entry Permit has been issued;
- Any task requiring the worker's breathing zone to enter the space should be conducted as confined space entry;

- Gas testing should occur in every confined space prior to entry, particularly where water or sludge is present; and
- Do not enter a confined space without an emergency/escape plan in place.
- All workers (i.e. employees and/or contractors) who are required to perform confined space entry, have been provided with accredited confined space training by a Registered Training Organisation (RTO) or equivalent prior to undertaking confined space work.

5.1. Labelling

It is best practice that all spaces identified as confined spaces are labelled in accordance with Section 3.2.2 of *AS2865:2009 Confined Spaces*.

The following are some examples of labelling options:

5.2. Security

All identified confined spaces should have the means of entry secured from unauthorised entry via the use of a secure locking mechanism, where practicable. It should be ensured that these locks are replaced after works are carried out to ensure the access remains restricted.

5.3. Training

Only specifically confined space entry trained workers should conduct work in confined spaces. All workers working near these spaces should be made aware of the nature of the risks, entry permit requirements and the need to refer all entry to properly trained personnel. This may occur via the employee / contractor induction programs that refer to the Confined Space Register.

Other workers that should be aware of the risks associated with confined spaces are (but not limited to):

- Workers issuing Confined Space Entry Permits;
- Workers procuring equipment for confined space entry;
- Workers conducting confined space entry risk assessments; and
- Workers within a work area that includes a confined space.

A refresher course should be conducted every two (2) years for all workers who are trained in Confined Space Entry. Those who are not trained must do so prior to entry and working in such a space.

5.4. Record Keeping

Greencap recommends that this report be kept for a period of five (5) years after the date of preparation. Therefore, the next re-assessment of confined spaces for South Village, 580 Princes Highway, Kirrawee NSW is due in March 2025.

The risk assessments in **Appendix C** should be reviewed prior to any works being undertaken and revised by a competent person to reflect any changes to risk control measures required for the works to progress.

Entry Permits must be kept until the work is completed or if a notifiable incident occurs for at least two (2) years after the confined space work to which the permit relates is completed.

In accordance with *WHS Regulation (NSW) 2017*, *Clause 50*, all air monitoring records (including any air monitoring results within a Confined Space Entry Permit) must be kept for a minimum thirty (30) years and are readily accessible to workers.

5.5. Gas Detection Equipment

Calibrated gas detection equipment must be available for personnel entering confined spaces. This may be supplied by a contractor, owned by the site or hired from a reputable equipment provider (current calibration certificates should be obtained). Personnel entering confined spaces must be competent in confined space entry. The gas detection equipment must be used at all times during confined space entry.

6. Findings

The following findings are a result of the site inspection and subsequent discussions with key site personnel:

- A total of eighty-one (81) confined spaces were identified at the site;
- Confined spaces identified on site were generally not observed to be labelled, however a limited number of confined spaces (e.g. water tanks) were labelled at the time of inspection;
- Access to all confined spaces identified on site appeared to be secured from unauthorised entry at the time of inspection; and
- On the day of the inspection it was not possible to access all potential confined spaces throughout the property. However, in order to take a precautionary approach these spaces have been categorised as "Unknown" which are deemed to be confined spaces and should be treated as such until a space specific risk assessment can be conducted.

7. Recommendations

As a result of the confined spaces risk assessment the following recommendations are proposed:

- All works and access in relation to confined spaces must be undertaken in accordance with *AS2865:2009 Confined Spaces*, *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and regulatory requirements;
- Ensure contractors conduct works within confined spaces in accordance with *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and a Confined Space Procedure and complete a 'Confined Space Entry Permit' prior to entry into confined spaces;
- Ensure contractors are appropriately trained to undertake confined space entry and standby duties in accordance with *AS2865:2009 Confined Spaces*, *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and regulatory requirements;
- Where necessary, workers entering a confined space shall be required to wear an approved breathing apparatus (e.g. SCBA, etc.) at all times in accordance with *Code of Practice: Confined Spaces (SafeWork NSW, 2019)*;
- Ensure contractor Safe Work Method Statements (SWMS) address confined spaces, contact with chemicals, working at heights, noise, traffic management and isolation of services;
- Care must be taken when lifting/removing covers, where applicable consider a two person lift.
- Ensure access to all confined spaces identified throughout the property are locked and secured to prevent unauthorised entry and, where reasonably practicable, labelled in accordance *with Section 3.2.2 of AS2865:2009 Confined Spaces*; and
- Should access to one or more of the spaces categorised as "unknown" be required, supplementary risk assessments must be conducted prior to entry to verify the specific hazards and levels of risk, and to identify the need for any additional or alternative controls.

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Appendix A: Risk Assessment Classification – Guide

Likelihood

The probability measures the likelihood of an event linked to the identified hazard occurring or being realised. The likelihood matrix uses five categories as detailed below.

Level	Descriptor	Description
A	Almost certain	Will occur in most circumstances
B	Likely	Expected to occur occasionally
C	Moderate	May be experienced sometime in a working life
D	Unlikely	Would only occur in unlikely circumstances
E	Rare	Not expected to occur but could

Consequence

The consequence is the physical outcome of the hazard and provides an indication of the severity of the risk in relation to the detrimental effects to humans, property and productivity. The consequence matrix uses five categories as detailed below.

Level	Descriptor	Description	Cost/Productivity
1	Catastrophic	Fatality	Loss of operation and huge financial loss
2	Major	Extensive injuries or long term serious illness and loss of time	Loss of some operation time and productivity and major financial loss
3	Moderate	Medical treatment required and up to a few days lost from workplace	Loss of productivity and high financial loss
4	Minor	First Aid required. No lost time from workplace	Medical treatment costs only
5	Insignificant	No injury but may impact on working productivity	Productivity not optimal, low or no financial loss

Risk Matrix

The risk score is based on the product of the two key factors, namely probability and consequence as detailed in the following matrix:

Likelihood	Consequence				
	1	2	3	4	5
A	Extreme	Extreme	Extreme	High	High
B	Extreme	Extreme	High	Medium	Medium
C	Extreme	High	Medium	Medium	Low
D	High	High	Medium	Low	Low
E	High	High	Medium	Low	Low

Extreme Risk: Plan controls for immediate intervention
High Risk: High priority for action
Medium Risk: Responsibility to be allocated and timeframe set for action
Low Risk: Implement appropriate management plans

Control of Risk

In order to determine possible control measures the hierarchy of control should be referenced. The hierarchy of controls provides a range of control measures from the most effective to the least effective. The preferred order is as follows:

- **Level 1 - Elimination** - removing the hazard from the workplace. This is the most effective control measure;
- **Level 2 - Substitution** - substituting or replacing a hazardous work practice with a less hazardous process;
- **Level 2 - Isolation** - isolating or separating the hazard from people involved in the work or people in the general work areas. This can be achieved by installing screens or marking off hazardous areas;
- **Level 2 - Engineering Control** - this may include modifications to hazardous areas, providing guarding, railing etc.;
- **Level 3 - Administrative Control** - includes introducing work practices that reduce the risk. This could include training, procedural control, access restrictions, signposting of a particular hazardous area; and
- **Level 3 - Personal Protective Equipment** - should be the last resort and only considered when other control measures are not practicable.

In some instances, a combination of control measures may be appropriate.

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Appendix B: Confined Space Register

Confined Space Register

Mirvac Retail – South Village, 580 Princes Highway, Kirrawee NSW

- **Ensure contractor safety documentation (e.g. Safe Work Method Statements, Risk Assessments, etc.) address Confined Spaces, Isolation of Services, Noise, Chemicals, Working at Heights and Traffic Management.**
- **Ensure contractors conduct works within this confined space in accordance with a site specific Confined Space Procedure and complete a Confined Space Entry Permit prior to entry into confined spaces.**
- **A confined space emergency rescue plan/procedure must be established and practiced prior to any confined space entry and evidence must be provided to site manager.**
- **Confined space safety equipment (e.g. gas detection, safety harnesses etc.) must be appropriately maintained in accordance with the manufactures recommendations and/or applicable Australian Standards.**

Note: Refer to individual confined space risk assessments, photographs and site plans.

Confined Space Number	Level	Room	Location	Type	Risk Level	Signage Present	Photo
1	Ground	Exterior	Adjacent entry to Hydrant Pump Room	Unknown	Unknown	No	1
2	Ground	Exterior	North side of site, adjacent garden bed	Unknown	Unknown	No	2
3	Ground	Exterior	North east corner of site, within garden bed	Water Drain	High	No	3
4	Ground	Exterior	North east corner of site, within garden bed	Unknown	Unknown	No	4
5	Ground	Exterior	North east corner of site, adjacent substation S63694	Water Drain	High	No	5
6	Ground	Exterior	North east corner of site, adjacent substation S63694	Water Drain	High	No	6
7	Ground	Exterior	North side of site adjacent garden bed	Unknown	Unknown	No	7
8	Ground	Exterior	North side of site adjacent garden bed	Unknown	Unknown	No	8
9	Ground	Exterior	North side of site adjacent garden bed	Unknown	Unknown	No	9
10	Ground	Exterior	North side of site within garden bed, adjacent fire exits	Water Drain	High	No	10
11	Ground	Exterior	South west corner of site within pedestrian path adjacent Village Place	Water Drain	High	No	11
12	Ground	Exterior	Adjacent car park entry ramp from Village Place	Water Drain	High	No	12
13	Ground	Exterior	Adjacent car park exit ramp from Village Place	Water Drain	High	No	13
14	Ground	Exterior	North side of Village Place adjacent 1P parking bays	Water Drain	High	No	14
15	Ground	Exterior	South side of Village Place adjacent 1P parking bays	Water Drain	High	No	15
16	Ground	Exterior	East side of Kiln Road, adjacent northern speed hump	Water Drain	High	No	16
17	Ground	Exterior	East side of Kiln Road, adjacent northern speed hump	Unknown	Unknown	No	17
18	Ground	Exterior	East side of Kiln Road, adjacent central speed hump	Water Drain	High	No	18
19	Ground	Exterior	East side of Kiln Road, adjacent central speed hump	Unknown	Unknown	No	19
20	Ground	Exterior	East side of Kiln Road, adjacent southern speed hump	Water Drain	High	No	20
21	Ground	Exterior	East side of Kiln Road, adjacent southern speed hump	Unknown	Unknown	No	21
22	Ground	Exterior	East side of Kiln Road, adjacent Flora Street	Water Drain	High	No	22
23	Ground	Exterior	East side of Kiln Road, adjacent Flora Street	Unknown	Unknown	No	23

Likelihood

Level	Descriptor	Description
A	Almost certain	Will occur in most circumstances
B	Likely	Expected to occur occasionally
C	Moderate	May be experienced sometime in a working life
D	Unlikely	Would only occur in unlikely circumstances
E	Rare	Not expected to occur but could

Consequence

Level	Descriptor	Description	Cost/Productivity
1	Catastrophic	Fatality	Loss of operation and huge financial loss
2	Major	Extensive injuries or long term serious illness and loss of time	Loss of some operation time and productivity and major financial loss
3	Moderate	Medical treatment required and up to a few days lost from workplace	Loss of productivity and high financial loss
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5	Insignificant	No injury but may impact on working productivity	Productivity not optimal, low or no financial loss

RISK RANKING

	Consequence				
Likelihood	**1**	**2**	**3**	**4**	**5**
A	Extreme	Extreme	Extreme	High	High
B	Extreme	Extreme	High	Medium	Medium
C	Extreme	High	Medium	Medium	Low
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Confined Space Register

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- **Confined space safety equipment (e.g. gas detection, safety harnesses etc.) must be appropriately maintained in accordance with the manufactures recommendations and/or applicable Australian Standards.**

Note: Refer to individual confined space risk assessments, photographs and site plans.

Confined Space Number	Level	Room	Location	Type	Risk Level	Signage Present	Photo
24	Ground	Exterior	North side of Flora Street, adjacent 39 Flora Street entry	Water Drain	High	No	24
25	Ground	Exterior	North side of Flora Street, adjacent 39 Flora Street entry	Water Drain	High	No	25
26	Ground	Exterior	North side of Flora Street, adjacent entry driveway for residential car park	Water Drain	High	No	26
27	Ground	Exterior	North side of Flora Street, adjacent south east corner of building	Water Drain	High	No	27
28	Ground	Exterior	Adjacent south east corner of site	Unknown	Unknown	No	28
29	Ground	Exterior	Adjacent south east corner of site	Water Drain	High	No	29
30	Ground	Exterior	East side of site within fenced area	Unknown	Unknown	No	30
31	Ground	Exterior	East side of site within fenced area	Unknown	Unknown	No	31
32	Loading Dock	Loading Dock	Within loading dock entry driveway	Water Drain	High	No	32
33	Loading Dock	Loading Dock	East side of loading dock driveway opposite Coles loading dock	Water Drain	High	No	33
34	Loading Dock	Loading Dock	East side of loading dock driveway opposite Coles loading dock	Water Drain	High	No	34
35	Loading Dock	Loading Dock	East side of loading dock driveway opposite Coles loading dock	Water Drain	High	No	35
36	Loading Dock	Loading Dock	South end of loading dock adjacent roller door and storage cages	Water Drain	High	No	36
37	Loading Dock	Loading Dock	South end of loading dock adjacent roller door and storage cages	Unknown	Unknown	No	37
38	Loading Dock	Loading Dock	Top of loading dock adjacent garbage compactor	Unknown	Unknown	No	38
39	Loading Dock	Loading Dock	Centre of truck turning circle	Water Drain	High	No	39
40	Loading Dock	Loading Dock	Adjacent Aldi loading dock	Sewer	Extreme	No	40
41	Loading Dock	Loading Dock	Adjacent Aldi garbage compactor	Water Drain	High	No	41
42	Loading Dock	Loading Dock	West side of truck turning circle	Water Drain	High	No	42
43	Loading Dock	Loading Dock	Entry driveway to Coles loading dock	Water Drain	High	No	43
44	Loading Dock	Loading Dock	Opposite Coles Online loading dock	Water Drain	High	No	44
45	Loading Dock	Loading Dock	Adjacent Coles Online loading dock	Water Drain	High	No	45

Likelihood

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- **A confined space emergency rescue plan/procedure must be established and practiced prior to any confined space entry and evidence must be provided to site manager.**
- **Confined space safety equipment (e.g. gas detection, safety harnesses etc.) must be appropriately maintained in accordance with the manufactures recommendations and/or applicable Australian Standards.**

Note: Refer to individual confined space risk assessments, photographs and site plans.

Confined Space Number	Level	Room	Location	Type	Risk Level	Signage Present	Photo
46	Loading Dock	Loading Dock	Within Coles Online loading dock	Water Drain	High	No	46
47	B3	Loading Dock	Driveway to commercial tenant car park	Water Drain	High	No	47
48	B3	Loading Dock	Driveway to commercial tenant car park	Water Drain	High	No	48
49	B3	Loading Dock	Driveway to commercial tenant car park	Water Drain	High	No	49
50	B3	Commercial Tenant Car Park Area	Within commercial tenant car park, south east area	Water Drain	High	No	50
51	B3	Commercial Tenant Car Park Area	Within commercial tenant car park, east area	Water Drain	High	No	51
52	B3	Commercial Tenant Car Park Area	Within commercial tenant car park, adjacent mechanical cage, north east area	Water Drain	High	No	52
53	B3	Commercial Tenant Car Park Area	Adjacent mechanical cage, north east area	Water Drain	High	No	53
54	B3	Commercial Tenant Car Park Area	Within commercial tenant car park, central area	Water Drain	High	No	54
55	B3	Commercial Tenant Car Park Area	Within commercial tenant car park, south area	Water Drain	High	No	55
56	B3	Commercial Tenant Car Park Area	Within commercial tenant car park, south west corner	Water Drain	High	No	56
57	B3	Commercial Tenant Car Park Area	Within commercial tenant car park, north west corner	Water Drain	High	No	57
58	B3	Commercial Tenant Car Park Area	Within commercial tenant car park, north west corner	Water Drain	High	No	58
59	Ground	Exterior	North side of Village Place, central	Water Drain	High	No	59
60	Ground	Exterior	South side of Village Place, central	Water Drain	High	No	60
61	Ground	Exterior	North side of Village Place, adjacent central entry	Water Drain	High	No	61
62	Ground	Exterior	South side of Village Place, adjacent central entry	Water Drain	High	No	62

Likelihood

Level	Descriptor	Description
A	Almost certain	Will occur in most circumstances
B	Likely	Expected to occur occasionally
C	Moderate	May be experienced sometime in a working life
D	Unlikely	Would only occur in unlikely circumstances
E	Rare	Not expected to occur but could

Consequence

Level	Descriptor	Description	Cost/Productivity
1	Catastrophic	Fatality	Loss of operation and huge financial loss
2	Major	Extensive injuries or long term serious illness and loss of time	Loss of some operation time and productivity and major financial loss
3	Moderate	Medical treatment required and up to a few days lost from workplace	Loss of productivity and high financial loss
4	Minor	First Aid required. No lost time from workplace	Medical treatment costs only
5	Insignificant	No injury but may impact on working productivity	Productivity not optimal, low or no financial loss

RISK RANKING

	Consequence				
Likelihood	**1**	**2**	**3**	**4**	**5**
A	Extreme	Extreme	Extreme	High	High
B	Extreme	Extreme	High	Medium	Medium
C	Extreme	High	Medium	Medium	Low
D	High	High	Medium	Low	Low
E	High	High	Medium	Low	Low

Confined Space Register

Mirvac Retail – South Village, 580 Princes Highway, Kirrawee NSW

- **Ensure contractor safety documentation (e.g. Safe Work Method Statements, Risk Assessments, etc.) address Confined Spaces, Isolation of Services, Noise, Chemicals, Working at Heights and Traffic Management.**
- **Ensure contractors conduct works within this confined space in accordance with a site specific Confined Space Procedure and complete a Confined Space Entry Permit prior to entry into confined spaces.**
- **A confined space emergency rescue plan/procedure must be established and practiced prior to any confined space entry and evidence must be provided to site manager.**
- **Confined space safety equipment (e.g. gas detection, safety harnesses etc.) must be appropriately maintained in accordance with the manufactures recommendations and/or applicable Australian Standards.**

Note: Refer to individual confined space risk assessments, photographs and site plans.

Confined Space Number	Level	Room	Location	Type	Risk Level	Signage Present	Photo
63	Ground	Exterior	North side of Village Pace, opposite Aldi	Water Drain	High	No	63
64	Ground	Exterior	South side of Village Pace, opposite Aldi	Water Drain	High	No	64
65	Ground	Exterior	North side of Village Pace, eastern end	Water Drain	High	No	65
66	Ground	Exterior	South side of Village Pace, eastern end	Water Drain	High	No	66
67	Ground	Exterior	North side of Village Pace, eastern end	Water Drain	High	No	67
68	Ground	Exterior	South side of Village Pace, eastern end	Water Drain	High	No	68
69	Ground	Exterior	Eastern end of village Place	Water Drain	High	No	69
70	Roof	Cooling Tower Plant Room	Building B2, Central CT1	Cooling Tower	High	No	70
71	Roof	Cooling Tower Plant Room	Building B2, Central CT2	Cooling Tower	High	No	71
72	Roof	Cooling Tower Plant Room	Building B2, Central	Boiler	High	No	72
73	Roof	Cooling Tower Plant Room	Building B2, Central	Boiler	High	No	73
74	Roof	-	Building C1, central	Water Tank	High	Yes	74
75	Roof	-	Building C1, central	Water Tank	High	Yes	74
76	B2	Grease Trap Room South East	Central, Grease Trap 3	Grease Trap	Extreme	No	75
77	B2	Grease Trap Room South East	Central, Grease Trap 5	Grease Trap	Extreme	No	76
78	B2	Grease Trap Room South West	Central, Grease Trap 2	Grease Trap	Extreme	No	77
79	B2	Grease Trap Room North West	Central, Grease Trap 1	Grease Trap	Extreme	No	78

Likelihood

Level	Descriptor	Description
A	Almost certain	Will occur in most circumstances
B	Likely	Expected to occur occasionally
C	Moderate	May be experienced sometime in a working life
D	Unlikely	Would only occur in unlikely circumstances
E	Rare	Not expected to occur but could

Consequence

Level	Descriptor	Description	Cost/Productivity
1	Catastrophic	Fatality	Loss of operation and huge financial loss
2	Major	Extensive injuries or long term serious illness and loss of time	Loss of some operation time and productivity and major financial loss
3	Moderate	Medical treatment required and up to a few days lost from workplace	Loss of productivity and high financial loss
4	Minor	First Aid required. No lost time from workplace	Medical treatment costs only
5	Insignificant	No injury but may impact on working productivity	Productivity not optimal, low or no financial loss

RISK RANKING

	Consequence				
Likelihood	**1**	**2**	**3**	**4**	**5**
A	Extreme	Extreme	Extreme	High	High
B	Extreme	Extreme	High	Medium	Medium
C	Extreme	High	Medium	Medium	Low
D	High	High	Medium	Low	Low
E	High	High	Medium	Low	Low

Confined Space Register

Mirvac Retail – South Village, 580 Princes Highway, Kirrawee NSW

- **Ensure contractor safety documentation (e.g. Safe Work Method Statements, Risk Assessments, etc.) address Confined Spaces, Isolation of Services, Noise, Chemicals, Working at Heights and Traffic Management.**
- **Ensure contractors conduct works within this confined space in accordance with a site specific Confined Space Procedure and complete a Confined Space Entry Permit prior to entry into confined spaces.**
- **A confined space emergency rescue plan/procedure must be established and practiced prior to any confined space entry and evidence must be provided to site manager.**
- **Confined space safety equipment (e.g. gas detection, safety harnesses etc.) must be appropriately maintained in accordance with the manufactures recommendations and/or applicable Australian Standards.**

Note: Refer to individual confined space risk assessments, photographs and site plans.

Confined Space Number	Level	Room	Location	Type	Risk Level	Signage Present	Photo
80	B2	Grease Trap Room Central	Central, Grease Trap 4	Grease Trap	Extreme	No	79
81	B2	Grease Trap Room East	Central, Coles Grease Arrestor	Grease Trap	Extreme	No	80

Likelihood

Level	Descriptor	Description
A	Almost certain	Will occur in most circumstances
B	Likely	Expected to occur occasionally
C	Moderate	May be experienced sometime in a working life
D	Unlikely	Would only occur in unlikely circumstances
E	Rare	Not expected to occur but could

Consequence

Level	Descriptor	Description	Cost/Productivity
1	Catastrophic	Fatality	Loss of operation and huge financial loss
2	Major	Extensive injuries or long term serious illness and loss of time	Loss of some operation time and productivity and major financial loss
3	Moderate	Medical treatment required and up to a few days lost from workplace	Loss of productivity and high financial loss
4	Minor	First Aid required. No lost time from workplace	Medical treatment costs only
5	Insignificant	No injury but may impact on working productivity	Productivity not optimal, low or no financial loss

RISK RANKING

	Consequence				
Likelihood	**1**	**2**	**3**	**4**	**5**
A	Extreme	Extreme	Extreme	High	High
B	Extreme	Extreme	High	Medium	Medium
C	Extreme	High	Medium	Medium	Low
D	High	High	Medium	Low	Low
E	High	High	Medium	Low	Low

GREENCAP
Going Further in Managing Risk

Confined Space Assessment and Register

Mirvac Retail

South Village, 580 Princes Highway, Kirrawee NSW

Appendix C: Confined Space Risk Assessments

Confined Space Risk Assessment - Unknown Space

South Village, 580 Princes Highway, Kirrawee NSW

TO BE ASSESSED PRIOR TO ENTRY	
Does the Location meet the Requirements of a Confined Space?	
(Must answer YES to all of the 3 elements - A, B, C and at least one element of D)	
A. Is the space enclosed or partially enclosed	
B. Is the space designed or intended primarily not to be occupied by a person; and	
C. Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space, and	
D. Is the space 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.	
but does not include a mine shaft or the workings of a mine.	
Reference: Work Health and Safety Regulations 2017 (NSW) Part 4.3	
Dimensions of Space:	
Works to be conducted in space:	

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Restricted (emergency) entry & exit access					
Oxygen deficiency whilst work in progress					
Build up or excess of vapours such as hydrogen sulphide (H2S) or carbon monoxide (CO) to concentrations above the OES					
Build up of organic vapours to within explosive limits					
Airborne dust concentrations above the OES					
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 (i.e. entanglement, crushing, cutting, etc.)					

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Skin contact and hazardous chemicals and surface contaminants					
Environmental hazards: - Likelihood of slips, trips and falls; - Heat and cold stress; and - Lack of lighting.					
Biological hazards (e.g. E-coli)					
Electrical hazards					
				Confined Space Risk Level	

Applicable Legislation

WHS Act (NSW) 2011

WHS Regulation (NSW) 2017

AS2865:2009 Confined Spaces

Code of Practice: Confined Spaces (SafeWork NSW, 2019)

Recommendations

- Should access to one or more of the spaces categorised as "unknown" be required, supplementary risk assessments must be conducted prior to entry to verify the specific hazards and levels of risk, and to identify the need for any additional or alternative controls.
- All works and access in relation to confined spaces must be undertaken in accordance with *AS2865:2009 Confined Spaces*, *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and regulatory requirements.
- Ensure contractors conduct works within this confined space in accordance with a Confined Space Procedure and complete a Confined Space Entry Permit prior to entry into this confined space.
- Where deemed necessary, workers entering a confined space shall be required to wear an approved breathing apparatus at all times.
- Label/signpost, where reasonably practicable, the confined spaces in accordance with *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and Section 3.2.2 of *AS2865:2009 Confined Spaces*.
- Ensure access to these confined spaces is secured from unauthorised entry at all times.
- Ensure contractor Safe Work Method Statement (SWMS) addresses Confined Spaces, Working at Height, Noise, Contact with Chemicals, Isolation of Services and Traffic Management.
- Consider using a two person lift when lifting/removing covers.
- Only authorised personnel to access confined spaces.

Additional Controls:

Confined Space Risk Assessment – Grease Trap

South Village, 580 Princes Highway, Kirrawee NSW

Does the Location meet the Requirements of a Confined Space?	**YES**
(Must answer YES to all of the 3 elements - A, B, C and at least one element of D)	
A. Is the space enclosed or partially enclosed	**YES**
B. Is the space designed or intended primarily not to be occupied by a person; and	**YES**
C. Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space, and	**YES**
D. Is the space likely to be a risk to health and safety from:	
i. an atmosphere that does not have a safe oxygen level; or	**YES**
ii. contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or	**YES**
iii. harmful concentrations of any airborne contaminants, or	**YES**
iv. engulfment.	**YES**
but does not include a mine shaft or the workings of a mine.	
Reference: Work Health and Safety Regulations 2017 (NSW) Part 4.3	
Dimensions of Space:	Various
Works to be conducted in space:	Maintenance, Cleaning and Inspection

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Restricted (emergency) entry & exit access			✓		C2
Oxygen deficiency whilst work in progress			✓		C2
Build up or excess of vapours such as hydrogen sulphide (H2S) or carbon monoxide (CO) to concentrations above the OES				✓	B2
Build up of organic vapours to within explosive limits				✓	B2
Airborne dust concentrations above the OES	✓				D4
Radiation (non ionising and ionising)	✓				D4
Noise generated at levels above 85 dB(A)	✓				D4
Uncontrolled introduction of substances (e.g. steam, water, gases, etc.)		✓			D3
Engulfment			✓		C2
Manual handling of covers, lowering equipment into pits		✓			B3
Mechanical hazards (i.e. entanglement, crushing, cutting, etc.)		✓			D3

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Skin contact and hazardous chemicals and surface contaminants			✓		B3
Environmental hazards: - Likelihood of slips, trips and falls; - Heat and cold stress; and - Lack of lighting.		✓			D3
Biological hazards (e.g. E-coli)				✓	B2
Electrical hazards		✓			D3
				Confined Space Risk Level	**EXTREME**

Applicable Legislation

WHS Act (NSW) 2011

WHS Regulation (NSW) 2017

AS2865:2009 Confined Spaces

Code of Practice: Confined Spaces (SafeWork NSW, 2019)

Recommendations

- All works and access in relation to confined spaces must be undertaken in accordance with *AS2865:2009 Confined Spaces*, *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and regulatory requirements.
- Ensure contractors conduct works within this confined space in accordance with a Confined Space Procedure and complete a Confined Space Entry Permit prior to entry into this confined space.
- Where deemed necessary, workers entering a confined space shall be required to wear an approved breathing apparatus at all times.
- Label/signpost, where reasonably practicable, the confined spaces in accordance with *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and Section 3.2.2 of *AS2865:2009 Confined Spaces*.
- Ensure access to these confined spaces is secured from unauthorised entry at all times.
- Ensure contractor Safe Work Method Statement (SWMS) addresses Confined Spaces, Working at Height, Noise, Contact with Chemicals, Isolation of Services and Traffic Management.
- Consider using a two person lift when lifting/removing covers.
- Only authorised personnel to access confined spaces.

Additional Controls:

Confined Space Risk Assessment – Sewer Pit

South Village, 580 Princes Highway, Kirrawee NSW

Does the Location meet the Requirements of a Confined Space?	**YES**
(Must answer YES to all of the 3 elements - A, B, C and at least one element of D)	
A. Is the space enclosed or partially enclosed	**YES**
B. Is the space designed or intended primarily not to be occupied by a person; and	**YES**
C. Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space, and	**YES**
D. Is the space likely to be a risk to health and safety from:	
i. an atmosphere that does not have a safe oxygen level; or	**YES**
ii. contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or	**YES**
iii. harmful concentrations of any airborne contaminants, or	**YES**
iv. engulfment.	**YES**
but does not include a mine shaft or the workings of a mine.	
Reference: Work Health and Safety Regulations 2017 (NSW) Part 4.3	

Dimensions of Space:	Unknown
Works to be conducted in space:	Cleaning and Inspection

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Restricted (emergency) entry & exit access			✓		C2
Oxygen deficiency whilst work in progress			✓		C2
Build up or excess of vapours such as hydrogen sulphide (H2S) or carbon monoxide (CO) to concentrations above the OES				✓	B2
Build up of organic vapours to within explosive limits				✓	A2
Airborne dust concentrations above the OES	✓				D4
Radiation (non ionising and ionising)	✓				D4
Noise generated at levels above 85 dB(A)	✓				D4
Uncontrolled introduction of substances (e.g. steam, water, gases, etc.)			✓		B3
Engulfment			✓		C2
Manual handling of covers, lowering equipment into pits		✓			B3
Mechanical hazards (i.e. entanglement, crushing, cutting, etc.)	✓				D4

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Skin contact and hazardous chemicals and surface contaminants			✓		B3
Environmental hazards: - Likelihood of slips, trips and falls; - Heat and cold stress; and - Lack of lighting.		✓			D3
Biological hazards (e.g. E-coli)				✓	A3
Electrical hazards	✓				E4
				Confined Space Risk Level	**EXTREME**

Applicable Legislation

WHS Act (NSW) 2011

WHS Regulation (NSW) 2017

AS2865:2009 Confined Spaces

Code of Practice: Confined Spaces (SafeWork NSW, 2019)

Recommendations

- All works and access in relation to confined spaces must be undertaken in accordance with *AS2865:2009 Confined Spaces*, *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and regulatory requirements.
- Ensure contractors conduct works within this confined space in accordance with a Confined Space Procedure and complete a Confined Space Entry Permit prior to entry into this confined space.
- Where deemed necessary, workers entering a confined space shall be required to wear an approved breathing apparatus at all times.
- Label/signpost, where reasonably practicable, the confined spaces in accordance with *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and Section 3.2.2 of *AS2865:2009 Confined Spaces*.
- Ensure access to these confined spaces is secured from unauthorised entry all times.
- Ensure contractor Safe Work Method Statement (SWMS) addresses Confined Spaces, Working at Height, Noise, Contact with Chemicals, Isolation of Services and Traffic Management.
- Consider using a two person lift when lifting/removing covers.
- Only authorised personnel to access confined spaces.

Additional Controls:

Confined Space Risk Assessment – Water Drain

South Village, 580 Princes Highway, Kirrawee NSW

Does the Location meet the Requirements of a Confined Space?	YES
(Must answer YES to all of the 3 elements - A, B, C and at least one element of D)	
A. Is the space enclosed or partially enclosed	YES
B. Is the space designed or intended primarily not to be occupied by a person; and	YES
C. Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space, and	YES
D. Is the space likely to be a risk to health and safety from:	
i. an atmosphere that does not have a safe oxygen level; or	YES
ii. contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or	NO
iii. harmful concentrations of any airborne contaminants, or	YES
iv. engulfment.	YES
but does not include a mine shaft or the workings of a mine.	
Reference: Work Health and Safety Regulations 2017 (NSW) Part 4.3	

Dimensions of Space:	Various
Works to be conducted in space:	Cleaning and Inspection

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Restricted (emergency) entry & exit access			✓		C2
Oxygen deficiency whilst work in progress			✓		C2
Build up or excess of vapours such as hydrogen sulphide (H2S) or carbon monoxide (CO) to concentrations above the OES			✓		C2
Build up of organic vapours to within explosive limits		✓			C3
Airborne dust concentrations above the OES	✓				D4
Radiation (non ionising and ionising)	✓				D4
Noise generated at levels above 85 dB(A)	✓				D4
Uncontrolled introduction of substances (e.g. steam, water, gases, etc.)			✓		B3
Engulfment			✓		C2
Manual handling of covers, lowering equipment into pits		✓			B4
Mechanical hazards (i.e. entanglement, crushing, cutting, etc.)	✓				D4

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Skin contact and hazardous chemicals and surface contaminants	✓				D4
Environmental hazards: - Likelihood of slips, trips and falls; - Heat and cold stress; and - Lack of lighting.			✓		B3
Biological hazards (e.g. E-coli)		✓			C3
Electrical hazards			✓		C2
				Confined Space Risk Level	**HIGH**

Applicable Legislation

WHS Act (NSW) 2011

WHS Regulation (NSW) 2017

AS2865:2009 Confined Spaces

Code of Practice: Confined Spaces (SafeWork NSW, 2019)

Recommendations

- All works and access in relation to confined spaces must be undertaken in accordance with *AS2865:2009 Confined Spaces*, *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and regulatory requirements.
- Ensure contractors conduct works within this confined space in accordance with a Confined Space Procedure and complete a Confined Space Entry Permit prior to entry into this confined space.
- Where deemed necessary, workers entering a confined space shall be required to wear an approved breathing apparatus at all times.
- Label/signpost, where reasonably practicable, the confined spaces in accordance with *Code of Practice: Confined Spaces (SafeWork NSW, 2019)* and Section 3.2.2 of *AS2865:2009 Confined Spaces*.
- Ensure access to these confined spaces is secured from unauthorised entry at all times.
- Ensure contractor Safe Work Method Statement (SWMS) addresses Confined Spaces, Working at Height, Noise, Contact with Chemicals, Isolation of Services and Traffic Management.
- Consider using a two person lift when lifting/removing covers.
- Only authorised personnel to access confined spaces.

Additional Controls:

Confined Space Risk Assessment – Water Tank

South Village, 580 Princes Highway, Kirrawee NSW

Does the Location meet the Requirements of a Confined Space?	**YES**
(Must answer YES to all of the 3 elements - A, B, C and at least one element of D)	
A. Is the space enclosed or partially enclosed	**YES**
B. Is the space designed or intended primarily not to be occupied by a person; and	**YES**
C. Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space, and	**YES**
D. Is the space likely to be a risk to health and safety from:	
i. an atmosphere that does not have a safe oxygen level; or	**NO**
ii. contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or	**NO**
iii. harmful concentrations of any airborne contaminants, or	**NO**
iv. engulfment.	**YES**
but does not include a mine shaft or the workings of a mine.	
Reference: Work Health and Safety Regulations 2017 (NSW) Part 4.3	

Dimensions of Space:	80,000L x 2
Works to be conducted in space:	Maintenance, Cleaning and Inspection

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Restricted (emergency) entry & exit access		✓			C3
Oxygen deficiency whilst work in progress		✓			C3
Build up or excess of vapours such as hydrogen sulphide (H2S) or carbon monoxide (CO) to concentrations above the OES	✓				E4
Build up of organic vapours to within explosive limits	✓				E4
Airborne dust concentrations above the OES	✓				E5
Radiation (non ionising and ionising)	✓				E5
Noise generated at levels above 85 dB(A)		✓			C4
Uncontrolled introduction of substances (e.g. steam, water, gases, etc.)			✓		C2
Engulfment			✓		C2
Manual handling of covers, lowering equipment into pits		✓			B4
Mechanical hazards (i.e. entanglement, crushing, cutting, etc.)	✓				D4

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Skin contact and hazardous chemicals and surface contaminants	✓				D4
Environmental hazards: - Likelihood of slips, trips and falls; - Heat and cold stress; and - Lack of lighting.		✓			C3
Biological hazards (e.g. E-coli)	✓				D4
Electrical hazards	✓				D4
				Confined Space Risk Level	**HIGH**

Applicable Legislation

WHS Act (NSW) 2011

WHS Regulation (NSW) 2017

AS2865:2009 Confined Spaces

Code of Practice: Confined Spaces (WorkCover NSW, 2011)

Recommendations

- All works and access in relation to confined spaces must be undertaken in accordance with *AS2865:2009 Confined Spaces*, *Code of Practice: Confined Spaces (WorkCover NSW, 2011)* and regulatory requirements.
- Ensure contractors conduct works within this confined space in accordance with a Confined Space Procedure and complete a Confined Space Entry Permit prior to entry into this confined space.
- Where deemed necessary, workers entering a confined space shall be required to wear an approved breathing apparatus at all times.
- Label/signpost, where reasonably practicable, the confined spaces in accordance with *Code of Practice: Confined Spaces (WorkCover NSW, 2011)* and Section 3.2.2 of *AS2865:2009 Confined Spaces*.
- Ensure access to these confined spaces is secured from unauthorised entry at all times.
- Ensure contractor Safe Work Method Statement (SWMS) addresses Confined Spaces, Working at Height, Noise, Contact with Chemicals, Isolation of Services and Traffic Management.
- Consider using a two person lift when lifting/removing covers.
- Only authorised personnel to access confined spaces.

Additional Controls:

Confined Space Risk Assessment – Cooling Tower

South Village, 580 Princes Highway, Kirrawee NSW

Does the Location meet the Requirements of a Confined Space?	**YES**
(Must answer YES to all of the 3 elements - A, B, C and at least one element of D)	
A. Is the space enclosed or partially enclosed	**YES**
B. Is the space designed or intended primarily not to be occupied by a person; and	**YES**
C. Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space, and	**YES**
D. Is the space likely to be a risk to health and safety from:	
i. an atmosphere that does not have a safe oxygen level; or	**YES**
ii. contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or	**YES**
iii. harmful concentrations of any airborne contaminants, or	**YES**
iv. engulfment.	**YES**
but does not include a mine shaft or the workings of a mine.	
Reference: Work Health and Safety Regulations (NSW) 2017, Part 4.3	

Dimensions of Space:	Various
Works to be conducted in space:	Maintenance, Cleaning and Inspection

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Restricted (emergency) entry & exit access			✓		C2
Oxygen deficiency whilst work in progress		✓			C3
Build up or excess of vapours such as hydrogen sulphide (H2S) or carbon monoxide (CO) to concentrations above the OES		✓			C3
Build up of organic vapours to within explosive limits	✓				E5
Airborne dust concentrations above the OES	✓				E5
Radiation (non ionising and ionising)	✓				E5
Noise generated at levels above 85 dB(A)		✓			C4
Uncontrolled introduction of substances (e.g. steam, water, gases, etc.)			✓		C2
Engulfment			✓		C2
Manual handling of covers, lowering equipment into pits		✓			D3
Mechanical hazards (i.e. entanglement, crushing, cutting, etc.)			✓		C2

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Skin contact and hazardous chemicals and surface contaminants			✓		C2
Environmental hazards: - Likelihood of slips, trips and falls; - Heat and cold stress; and - Lack of lighting.		✓			C3
Biological hazards (e.g. E-coli)			✓		C2
Electrical hazards		✓			D3
				Confined Space Risk Level	**HIGH**

Applicable Legislation

WHS Act (NSW) 2011

WHS Regulation (NSW) 2017

AS2865:2009 Confined Spaces

Code of Practice: Confined Spaces (WorkCover NSW, 2011)

Recommendations

- All works and access in relation to confined spaces must be undertaken in accordance with *AS2865:2009 Confined Spaces*, *Code of Practice: Confined Spaces (WorkCover NSW, 2011)* and regulatory requirements.
- Ensure contractors conduct works within this confined space in accordance with a Confined Space Procedure and complete a Confined Space Entry Permit prior to entry into this confined space.
- Where deemed necessary, workers entering a confined space shall be required to wear an approved breathing apparatus at all times.
- Label/signpost, where reasonably practicable, the confined spaces in accordance with *Code of Practice: Confined Spaces (WorkCover NSW, 2011)* and Section 3.2.2 of *AS2865:2009 Confined Spaces*.
- Ensure access to these confined spaces is secured from unauthorised entry at all times.
- Ensure contractor Safe Work Method Statement (SWMS) addresses Confined Spaces, Working at Height, Noise, Contact with Chemicals, Isolation of Services and Traffic Management.
- Consider using a two person lift when lifting/removing covers.
- Only authorised personnel to access confined spaces.

Additional Controls:

Confined Space Risk Assessment – Boiler

South Village, 580 Princes Highway, Kirrawee NSW

Does the Location meet the Requirements of a Confined Space?	**YES**
(Must answer YES to all of the 3 elements - A, B, C and at least one element of D)	
A. Is the space enclosed or partially enclosed	**YES**
B. Is the space designed or intended primarily not to be occupied by a person; and	**YES**
C. Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space, and	**YES**
D. Is the space likely to be a risk to health and safety from:	
i. an atmosphere that does not have a safe oxygen level; or	**YES**
ii. contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or	**NO**
iii. harmful concentrations of any airborne contaminants, or	**YES**
iv. engulfment.	**YES**
but does not include a mine shaft or the workings of a mine.	
Reference: Work Health and Safety Regulations (NSW) 2017, Part 4.3	

Dimensions of Space:	Various
Works to be conducted in space:	Maintenance, Cleaning and Inspection

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Restricted (emergency) entry & exit access		✓			B4
Oxygen deficiency whilst work in progress		✓			E3
Build up or excess of vapours such as hydrogen sulphide (H2S) or carbon monoxide (CO) to concentrations above the OES		✓			D3
Build up of organic vapours to within explosive limits		✓			D3
Airborne dust concentrations above the OES	✓				E5
Radiation (non ionising and ionising)	✓				E5
Noise generated at levels above 85 dB(A)			✓		B3
Uncontrolled introduction of substances (e.g. steam, water, gases, etc.)		✓			D3
Engulfment			✓		C2
Manual handling of covers, lowering equipment into pits		✓			C3
Mechanical hazards (i.e. entanglement, crushing, cutting, etc.)		✓			E4

Key Hazard	Estimated Level of Risk				Risk Ranking
	LOW	MED	HIGH	EXT	
Skin contact and hazardous chemicals and surface contaminants		✓			E4
Environmental hazards: - Likelihood of slips, trips and falls; - Heat and cold stress; and - Lack of lighting.		✓			B4
Biological hazards (e.g. E-coli)		✓			C4
Electrical hazards		✓			C4
				Confined Space Risk Level	**HIGH**

Applicable Legislation

WHS Act (NSW) 2011

WHS Regulation (NSW) 2017

AS2865:2009 Confined Spaces

Code of Practice: Confined Spaces (WorkCover NSW, 2011)

Recommendations

- All works and access in relation to confined spaces must be undertaken in accordance with *AS2865:2009 Confined Spaces, Code of Practice: Confined Spaces (WorkCover NSW, 2011)* and regulatory requirements.
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- Ensure access to these confined spaces is secured from unauthorised entry at all times.
- Ensure contractor Safe Work Method Statement (SWMS) addresses Confined Spaces, Working at Height, Noise, Contact with Chemicals, Isolation of Services and Traffic Management.
- Consider using a two person lift when lifting/removing covers.
- Only authorised personnel to access confined spaces.

Additional Controls:

Confined Space Assessment and Register

Mirvac Retail

South Village, 580 Princes Highway, Kirrawee NSW

Appendix D: Photographs

	
Photo 1. Confined Space 1.	**Photo 2.** Confined Space 2.
	
Photo 3. Confined Space 3.	**Photo 4.** Confined Space 4.
	
Photo 5. Confined Space 5.	**Photo 6.** Confined Space 6.

	
Photo 7. Confined Space 7.	**Photo 8.** Confined Space 8.
	
Photo 9. Confined Space 9.	**Photo 10.** Confined Space 10.
	
Photo 11. Confined Space 11.	**Photo 12.** Confined Space 12.

	
Photo 13. Confined Space 13.	**Photo 14.** Confined Space 14.
	
Photo 15. Confined Space 15.	**Photo 16.** Confined Space 16.
	
Photo 17. Confined Space 17.	**Photo 18.** Confined Space 18.

	
Photo 19. Confined Space 19.	**Photo 20.** Confined Space 20.
	
Photo 21. Confined Space 21.	**Photo 22.** Confined Space 22.
	
Photo 23. Confined Space 23.	**Photo 24.** Confined Space 24.

	
Photo 25. Confined Space 25.	**Photo 26.** Confined Space 26.
	
Photo 27. Confined Space 27.	**Photo 28.** Confined Space 28.
	
Photo 29. Confined Space 29.	**Photo 30.** Confined Space 30.

	
Photo 31. Confined Space 31.	**Photo 32.** Confined Space 32.
	
Photo 33. Confined Space 33.	**Photo 34.** Confined Space 34.
	
Photo 35. Confined Space 35.	**Photo 36.** Confined Space 36.

	
Photo 37. Confined Space 37.	**Photo 38.** Confined Space 38.
	
Photo 39. Confined Space 39.	**Photo 40.** Confined Space 40.
	
Photo 41. Confined Space 41.	**Photo 42.** Confined Space 42.

	
Photo 43. Confined Space 43.	**Photo 44.** Confined Space 44.
	
Photo 45. Confined Space 45.	**Photo 46.** Confined Space 46.
	
Photo 47. Confined Space 47.	**Photo 48.** Confined Space 48.

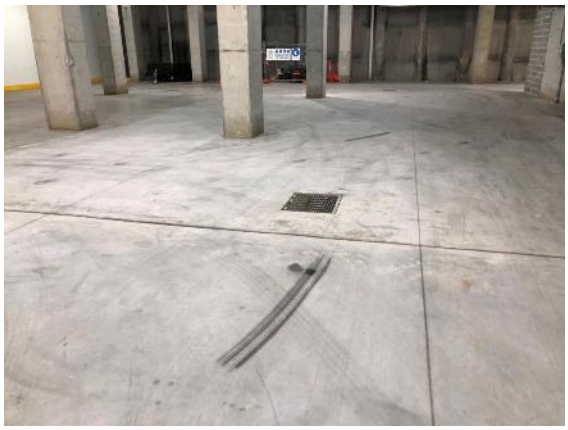
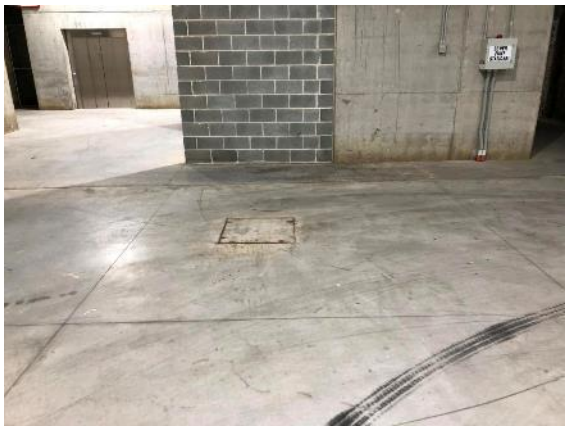
	
Photo 49. Confined Space 49.	**Photo 50.** Confined Space 50.
	
Photo 51. Confined Space 51.	**Photo 52.** Confined Space 52.
	
Photo 53. Confined Space 53.	**Photo 54.** Confined Space 54.

	
Photo 55. Confined Space 55.	**Photo 56.** Confined Space 56.
	
Photo 57. Confined Space 57.	**Photo 58.** Confined Space 58.
	
Photo 59. Confined Space 59.	**Photo 60.** Confined Space 60.

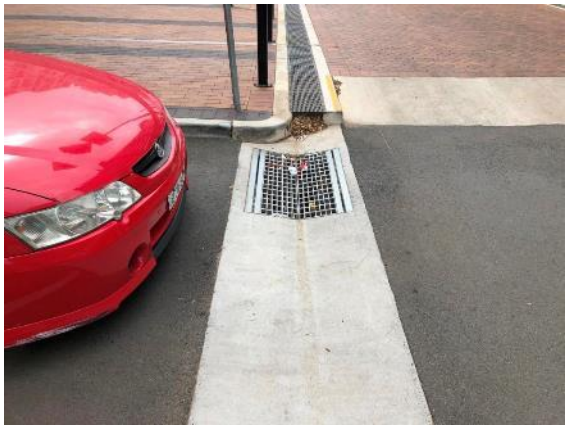


Photo 61. Confined Space 61.	**Photo 62.** Confined Space 62.
	
Photo 63. Confined Space 63.	**Photo 64.** Confined Space 64.
	
Photo 65. Confined Space 65.	**Photo 66.** Confined Space 66.

	
Photo 67. Confined Space 67.	**Photo 68.** Confined Space 68.
	
Photo 69. Confined Space 69.	**Photo 70.** Confined Space 70.
	
Photo 71. Confined Space 71.	**Photo 72.** Confined Space 72.

Photo 73. Confined Space 73.

Photo 74. Confined Space 74 and 75.

Photo 75. Confined Space 76.

Photo 76. Confined Space 77.

Photo 77. Confined Space 78.

Photo 78. Confined Space 79.

Photo 79. Confined Space 80.

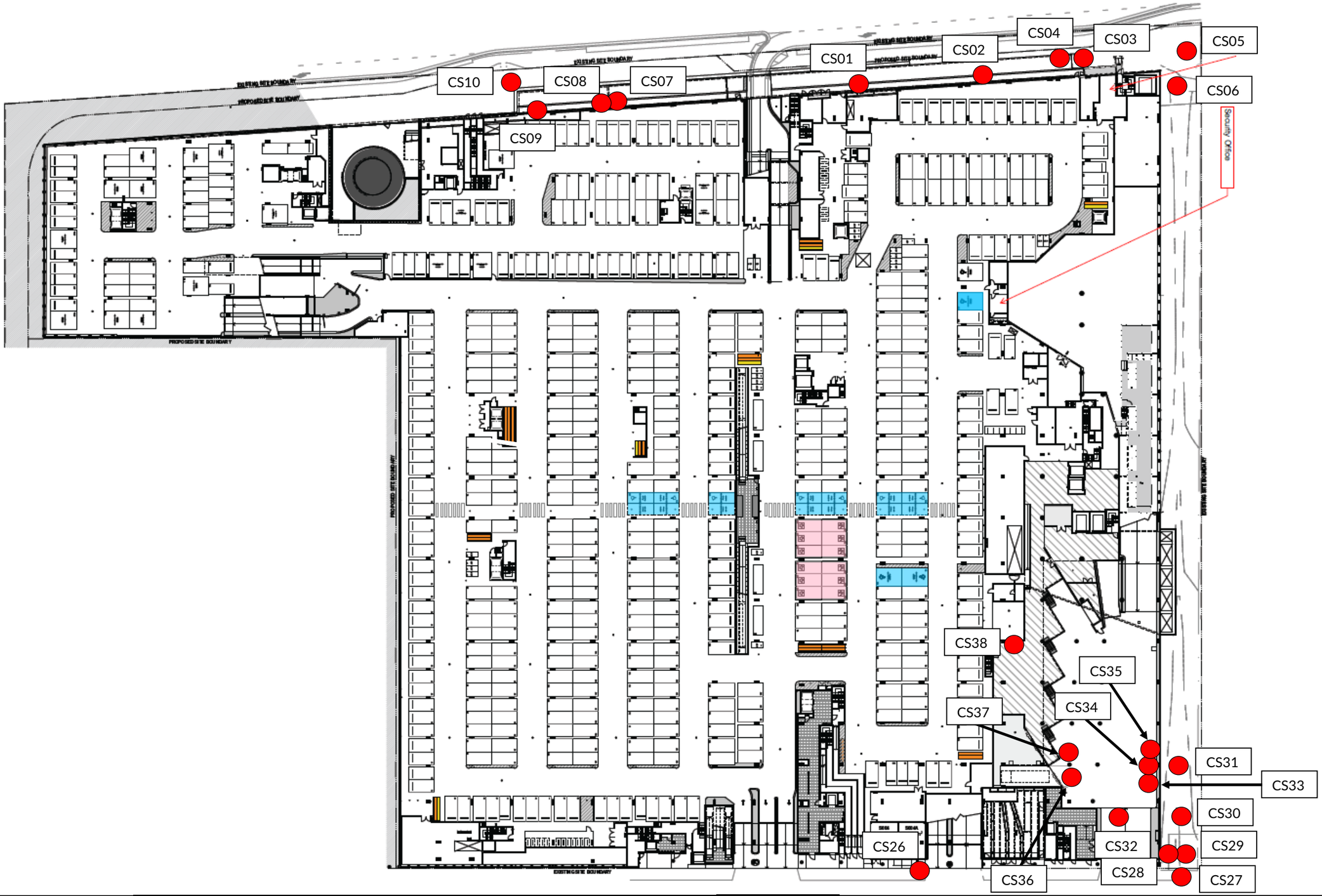
Photo 80. Confined Space 81.

Confined Space Assessment and Register

Mirvac Retail

South Village, 580 Princes Highway, Kirrawee NSW

Appendix E: Site Plans



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Going Further in Managing Risk

Level 2/11 Khartoum Road,
North Ryde NSW 2113
T: 02 9889 1800 F: 02 9889 1811
W: www.greencap.com.au

Confined Space Locations

NORTH

Confined Space Site Plan

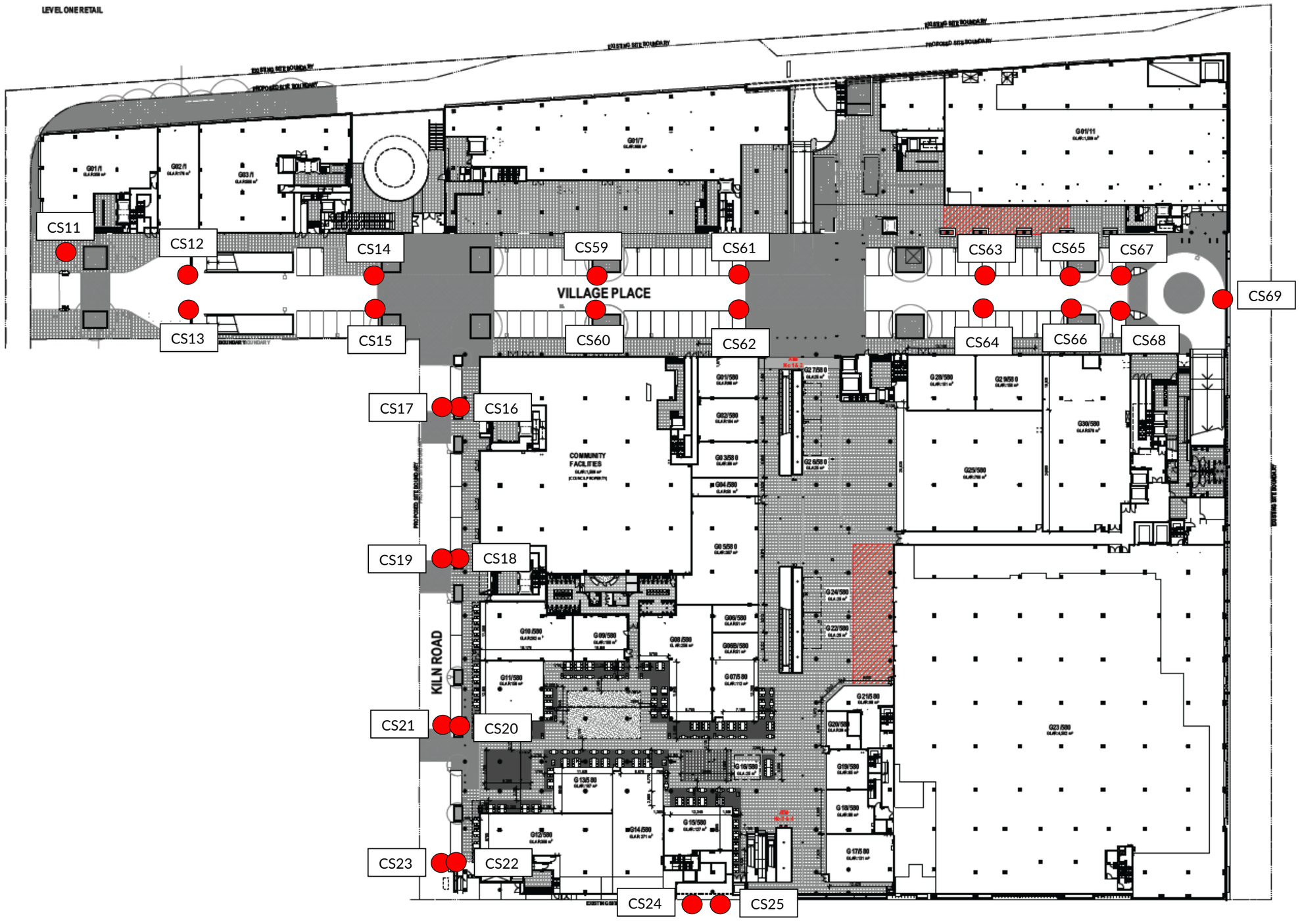
Mirvac

Loading Dock Level, South Village,
566-594 Princes Highway, Kirrawee NSW

Note* Not to scale.

Date: 26/02/2020

Consultant: DH



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● **Confined Space Locations**

NORTH

Confined Space Site Plan

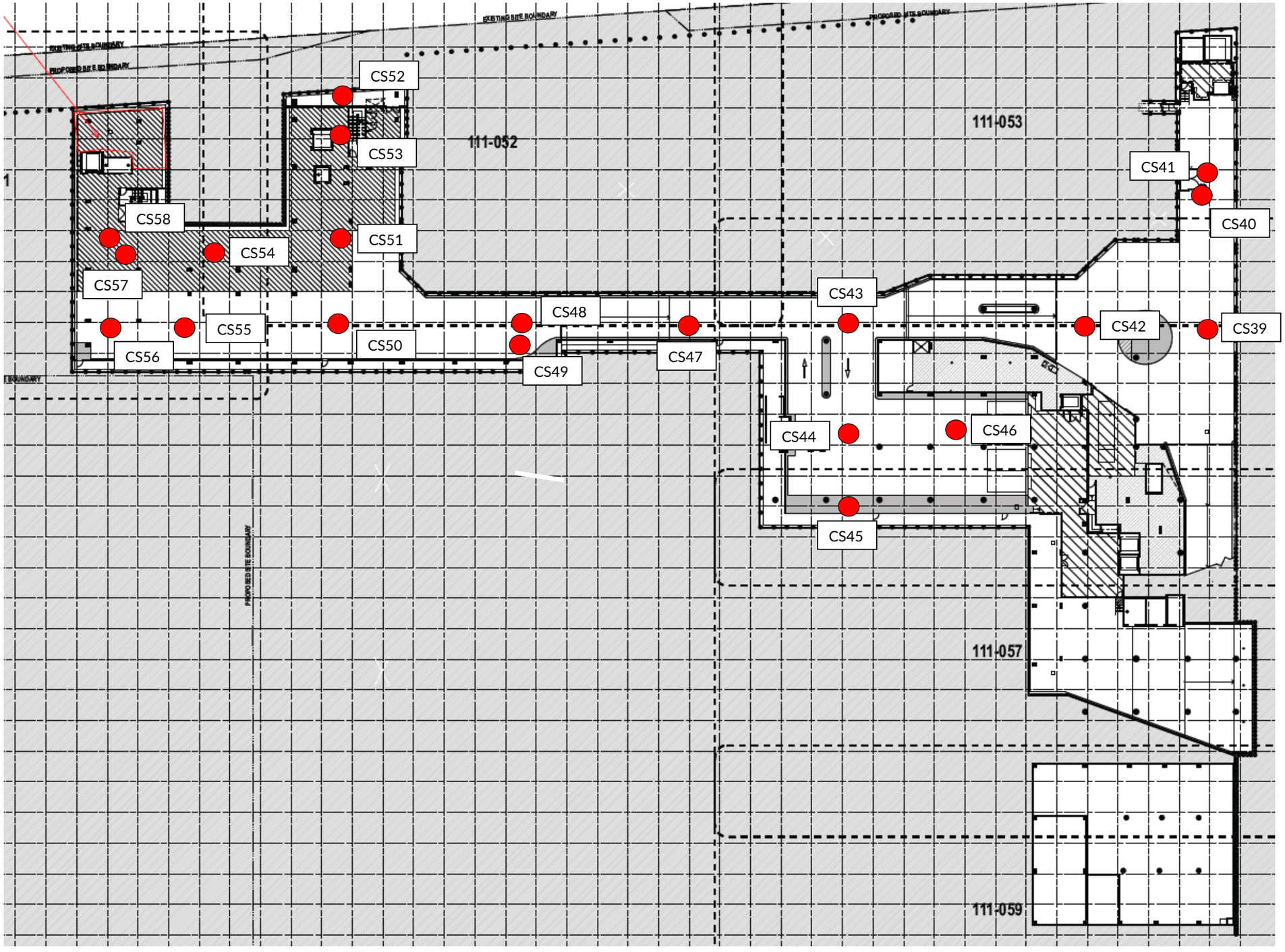
Mirvac

Date: 26/02/2020

Ground Level, South Village,
566-594 Princes Highway, Kirrawee NSW

Note* Not to scale.

Consultant: DH



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● **Confined Space Locations**

NORTH

Confined Space Site Plan

Mirvac

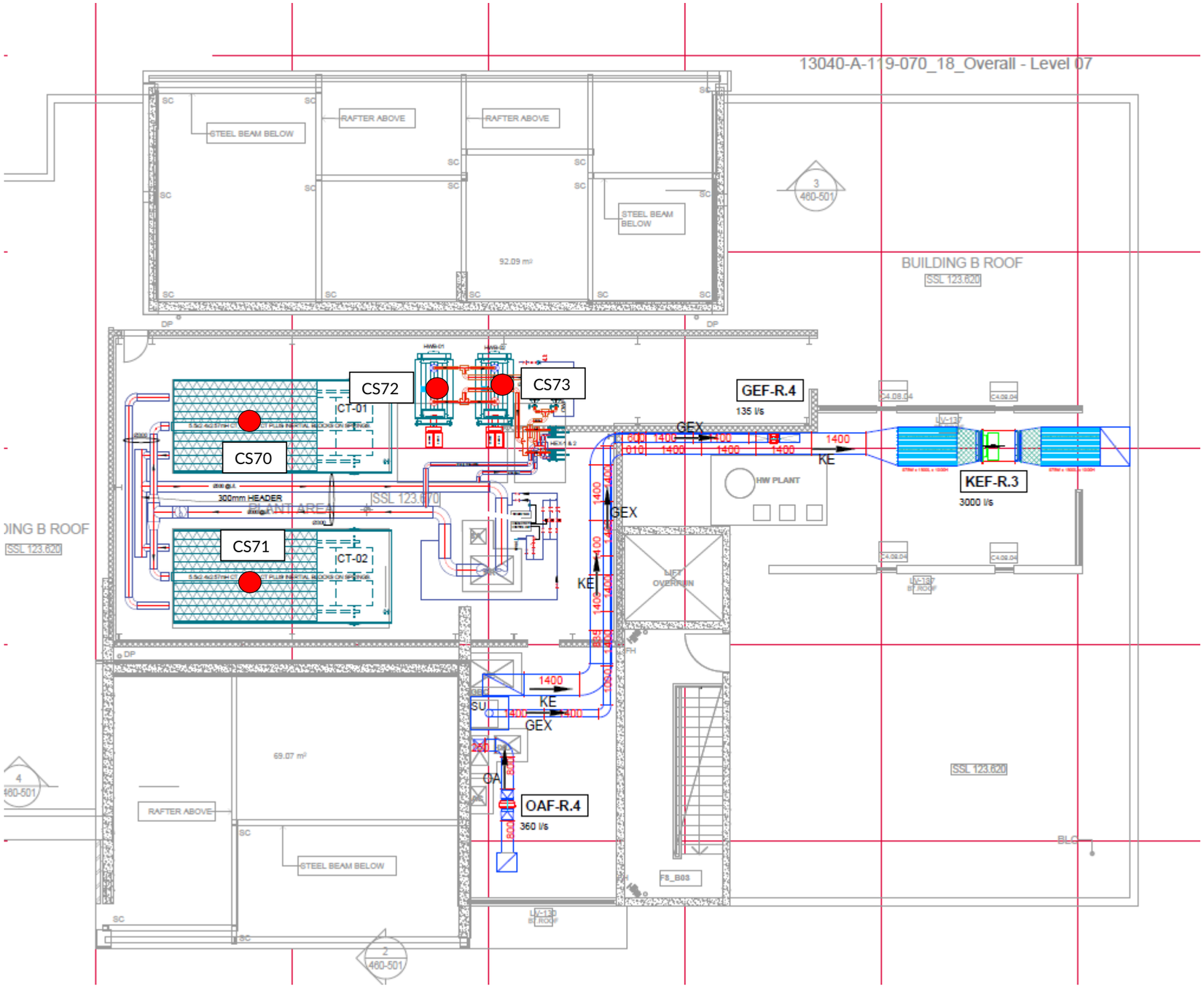
Date: 26/02/2020

Basement 3 Level, South Village,
566-594 Princes Highway, Kirrawee NSW

Note* Not to scale.

Consultant: DH

Plan 3 of 6



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● **Confined Space Locations**

NORTH

Confined Space Site Plan

Mirvac

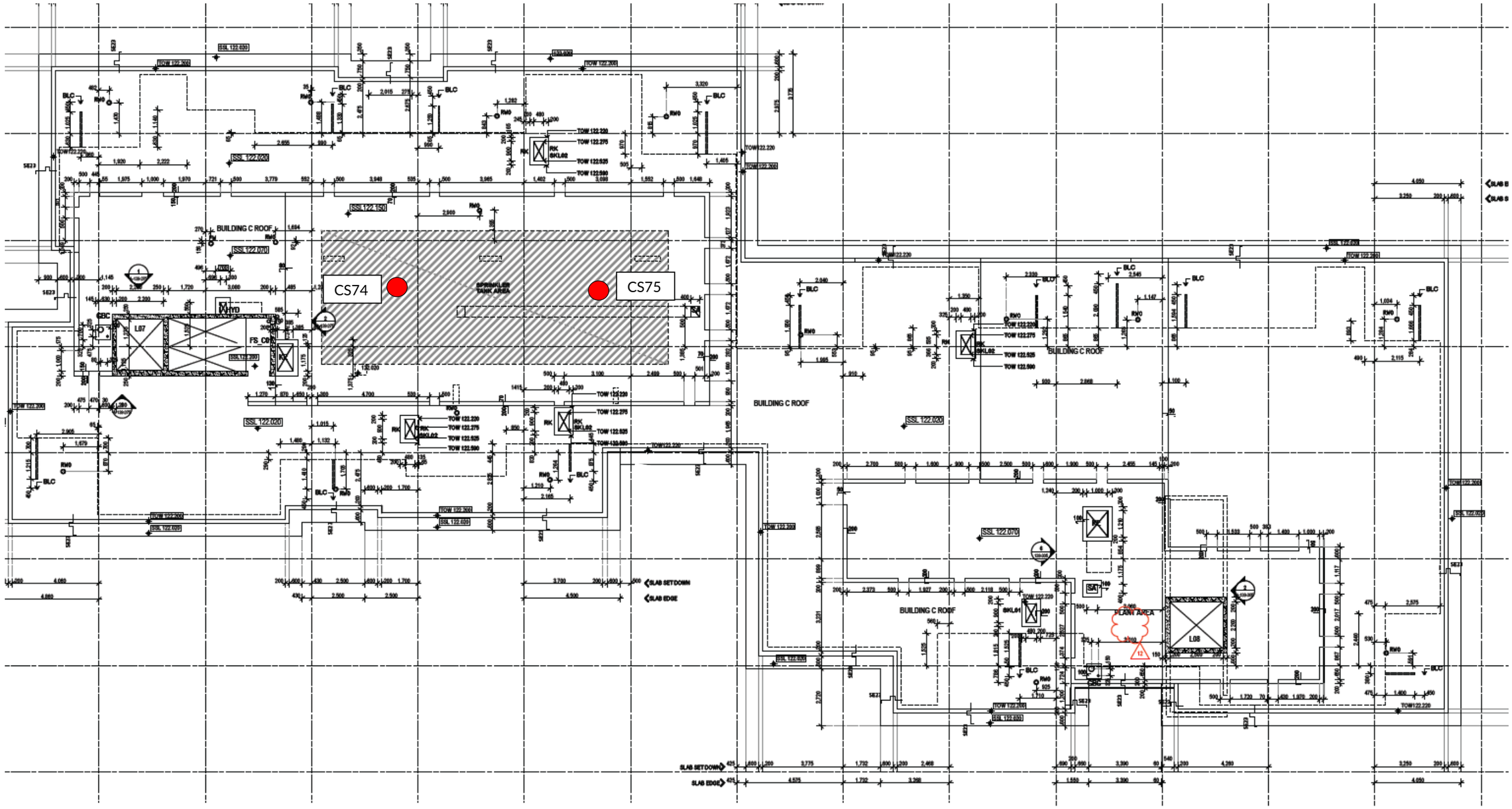
Date: 26/02/2020

Roof Level Building B2, South Village,
566-594 Princes Highway, Kirrawee NSW

Note* Not to scale.

Consultant: DH

Plan 4 of 6



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● **Confined Space Locations**

NORTH

Confined Space Site Plan

Mirvac

Date: 26/02/2020

Roof Level Building C1, South Village,
566-594 Princes Highway, Kirrawee NSW

Note* Not to scale.

Consultant: DH

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Confined Space Locations

NORTH

Confined Space Site Plan

Mirvac	Date: 26/02/2020
Basement 2 Level, South Village, 566-594 Princes Highway, Kirrawee NSW **Note*** Not to scale.	Consultant: DH
	Plan 6 of 6