HAZKEM
DANGEROUS GOODS CONSULTING

SEPP (Resilience and Hazards)

RISK SCREENING DOCUMENTATION AND PRELIMINARY HAZARD ANALYSIS

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May 2023

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Name of Project	Speed Gas Brookvale (49 Chard Rd)
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RISK SCREENING and PRELIMINARY HAZARD ANALYSIS
SPEED GAS PTY LTD
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BROOKVALE NSW

PURPOSE AND SCOPE OF THIS DOCUMENT

For dangerous goods installation designs where there are proposed storages above minor quantities, an investigation process must be followed in order to assess whether or not a proposal is suitable for a particular site or not as called up NSW State Environmental Planning Policy (Resilience and Hazards) 2021[1], (incorporating the formally named State Environmental Planning Policy 33 also known as SEPP 33). Such sites should be deemed "potentially hazardous" until a detailed risk assessment determines otherwise. The process flow chart is detailed in appendix 1.

The NSW Department of Planning provides guidelines for local government and developers for ensuring that the safety and pollutant impacts of an industrial proposal are addressed at an early stage of the development application process. The published NSW "Applying SEPP 33" is a way in which to assess and comply with the NSW State Environmental Planning Policy (Resilience and Hazards) 2021(incorporating the formally named State Environmental Planning Policy 33 also known as SEPP 33). Through this document an assessment procedure is followed which links the permissibility of a proposal to its safety performance. State Environmental Planning Policy (Resilience and Hazards) 2021 and therefore "Applying SEPP 33" ensures that only those industrial proposals which are suitably located, and able to demonstrate that they can be built and operated with an adequate level of safety, can proceed[2].

As detailed in State Environmental Planning Policy (Resilience and Hazards) 2021 a "*hazardous industry*" is one which poses a significant risk when all locational, technical, operational and organizational safeguards are included.

A "*potentially hazardous industry*" is one which, when all safeguards are operating, imposes a risk level which is significantly lower.

The "Applying SEPP 33" Guideline incorporates a screening process which will determine whether or not a site is potentially hazardous. If deemed potentially hazardous, a preliminary hazard analysis is required.

Certain activities may involve handling, storing or processing a range of substances which in the absence of locational, technical or operational controls may create an off-site risk or offence to people, property or the environment. Such activities would be defined as potentially hazardous or potentially offensive. The established State Environmental Planning Policies also provides guidelines to assist councils and

proponents to establish whether a development proposal would fit into such definitions and hence, come under the provisions of the policy.

The purpose of a PHA is to gain a better understanding of the risks and hazards associated with the site and to provide a reasonable basis for an informed judgment to be made on the acceptability of the site for the proposed development[3]. The PHA will outline in detail possible risks and hazards associated with this site. This will assist the council in reaching an informed decision for the proposal.

It is important to note also that this investigation has been carried out by a suitably qualified person who understands the properties of the dangerous goods stored on site and the possible impact they may have on equipment and structures located on and off site. Under state legislation a system must be designed by a suitably qualified person who is experienced in this type of work[4].

REFERENCE AND ASSISTANCE DOCUMENTS

This document has been compiled with guidance from:

- Hazardous Industry Planning Advisory Paper No 4 'Risk Criteria for Land Use Safety Planning'
- Hazardous Industry Planning Advisory Paper No 6. 'Guidelines for Hazard Analysis"
- Hazardous and Offensive Development Application Guideline 'Applying SEPP 33'
- NSW Dept of Planning assessment guidelines "Multi Level Risk Assessment".

SITE DESCRIPTION

LOCATION

The site is an existing gas supply and refilling facility for Speed Gas Pty Ltd located at 49 Chard Rd Brookvale NSW. The site is located within the Local Government Area of Northern Beaches and allocated with a zoning of IN1 General Industrial Zone under the Warringah Local Environmental Plan 2011.

The site itself is located to the south side of Chard Road, abutting additional general industrial sites to the rear. The surrounding properties are all general industrial properties under existing development.

PROPOSAL

The site is an existing gas storage and cylinder filling site for Speed Gas Pty Ltd. Speed Gas are industrial gas suppliers who currently utilise its onsite bulk gas storages to refill cylinders for distribution and retail sale to the wider community. The site is one single allotment (DP 401454)of approx 4000m^2.

The site incorporates bulk storage, cylinder storage and cylinder filling areas specifically nominated for the gas. The site's cylinder storages are all located in areas with appropriate natural ventilation in designated areas specific for the type of gas stored. The bulk storages of the inert gases are located in vertical tanks at the back of the site.

The proposal is for an additional 20 tonne storage vessel to be installed at the rear of the site together with the 2 existing vessels currently in place.

HAZARDOUS MATERIALS

As defined within the Department of Planning's "Applying SEPP 33" documentation the Risk Screening process is based on the notion of Hazardous Materials being present on site.
As outlined within this document Hazardous Materials that are covered and to be assessed under the SEPP 33 documentation must be classified as a Dangerous Good by the Australian Code for Transportation of Dangerous Goods by Road and Rail (Dangerous Goods Code)" (otherwise known as the ADG Code).

The existing and proposed hazardous material storages for this site, based on their classification under the ADG Code are as follows:

Product	Storage Type	UN	Class and PG	Quantity
CO2	vertical tank 1 (existing)	2187	class 2.2	15,000 litres
CO2	vertical tank 2 (existing)	2187	class 2.2	35,000 litres
CO2	vertical tank 3 (proposed)	2187	class 2.2	20 tonnes
CO2	cylinder storage (existing)	2187	class 2.2	30,000 litres

DIsclaimer: This assessment covers the bulk and cylinder storages listed above based on the information provided.

The above storages are the proposed maximums for the site to enable effective operation and supply of the gases to the local community. The dangerous goods

chosen are done so based on the existing knowledge of clientele and demand foreseen for the proposed new storage based on Speedgas Pty Ltd existing industry knowledge. The site and staff are well versed in the industry standards, and responsibilities of the occupier for the safe storage and handling of the Dangerous Goods.

ASSESSING POTENTIALLY OFFENSIVE INDUSTRY

The site is a proposed supply and refilling facility incorporating both bulk and cylinder storages of industrial gases for Speedgas Pty Ltd.

In deciding if a proposal is 'potentially offensive industry' there is a need to determine whether, in the absence of safeguards, the proposal would emit a polluting discharge which would cause a significant level of offence.

It is recommended the following be considered:

Does the proposal require a licence under any pollution control legislation administered by the DECCW or other public authority? If so, the proposal should be considered potentially offensive. If such a pollution control licence or approval is not required (as in this case), does the proposal cause offence having regard to the sensitivity of the receiving environment?

An 'offensive industry' is one which, even when controls are used, has emissions which result in a significant level of offence. Before a proposal is identified as offensive industry it must first be identified as potentially offensive industry and subjected to the assessment and exhibition requirements of SEPP 33.

The assessment should demonstrate that the offence can be controlled to a level which is not significant. Typically, the level of offence would not be considered significant if relevant DECCW (or any other relevant pollution control) licences can be obtained; that is, if the DECCW (or other licensing authority) is willing to issue a pollution control licence or permit.

Carbon Dioxide is a colorless, odorless, non toxic, non combustible gas which does not require a licence from any authority. Because of the quantity currently stored, and proposed to be stored, notification to NSW workcover is, however, required.

Based on the above, in this instance, the site is not considered potentially offensive.

ASSESSING POTENTIALLY HAZARDOUS INDUSTRY

A 'hazardous industry' under SEPP 33 is one which, when all locational, technical,

operational and organisational safeguards are employed continues to pose a significant risk. A proposal can not be considered a hazardous industry unless it is first identified as potentially hazardous industry and subjected to the assessment requirements of SEPP 33.

SEPP 33 requires the preparation of a preliminary hazard analysis (PHA) for potentially hazardous industry.

As stated previously, the "Applying SEPP 33" Guideline incorporates a screening process which will determine whether or not a site is potentially hazardous. If deemed potentially hazardous, a preliminary hazard analysis is required.

Referencing the NSW planning document "Applying SEPP 33", dated Jan 2011, we have a risk screening where various classes of dangerous goods are listed and the appropriate cut off quantities detailed. (table 1, Screening method to be used) Class 2.2, as is the case here, is not listed, and we have the following detailed:

> "Class 2.2 — are non-flammable, non-toxic gases and are not considered to be potentially hazardous with respect to off-site risk." (ref page 33).

So based on this, the site storage is not potentially hazardous as the carbon dioxide is a class 2.2 product.

CONCLUSION

It has been determined via assessment of this proposal under the NSW State Environmental Planning Policy (Resilience and Hazards) and the NSW "Applying SEPP 33" Guideline Document that the site is deemed "not potentially hazardous", and "not potentially offensive"as carbon dioxide storage is exempt from SEPP 33 assessment.

As a result of this finding there is no requirement for a Preliminary Hazard Analysis to be undertaken.

The various codes and standards that are applicable to this product must still be applied under NSW Workcover regulation.

DOCUMENT REFERENCES

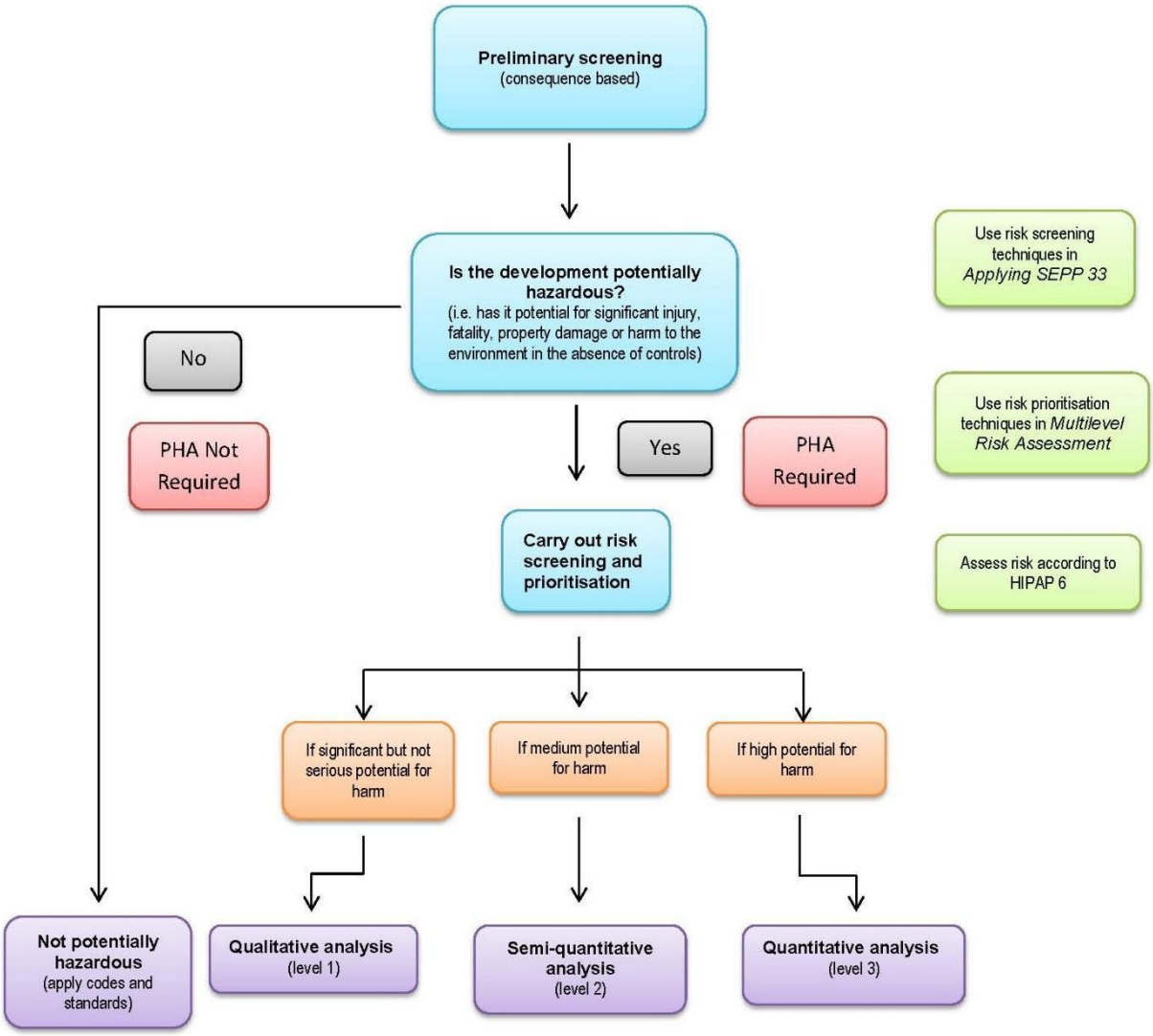
[1] State Environmental Planning Policy (Resilience and Hazards) 2021 – Department of Planning NSW, March 2022.
[2] State Environmental Planning Policy 33, Hazardous & Offensive Development Application Guidelines – Department of Planning NSW. Page 1, 1.2 the policy, last para
[3] State Environmental Planning Policy 33, Hazardous & Offensive Development Application Guidelines – Department of Planning NSW. Page 9, 4.2
[4] Protection of the Environment Operations (Underground Petroleum Storage Systems) regulation 2014 division 1, clause 5 and 6

Codes of Practices:
Australian Code for the Transportation of Dangerous Goods by Road and Rail, Seventh edition.
NSW Code of Practice 2005 for Storage & Handling of Dangerous Goods.
NSW Work Health and Safety Act 2011
NSW Work Health and Safety Regulation 2017.

Planning NSW Guidelines:
Hazardous and Offensive Development Application Guidelines - Applying SEPP 33
Hazardous and Offensive Development Application Guidelines - Multi-Level Risk Assessment
Hazardous Industry Planning Advisory Paper No. 4 - Risk Criteria for Land Use Safety Planning
Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis
Hazardous Industry Planning Advisory Paper No. 8 - Hazard and Operability Studies

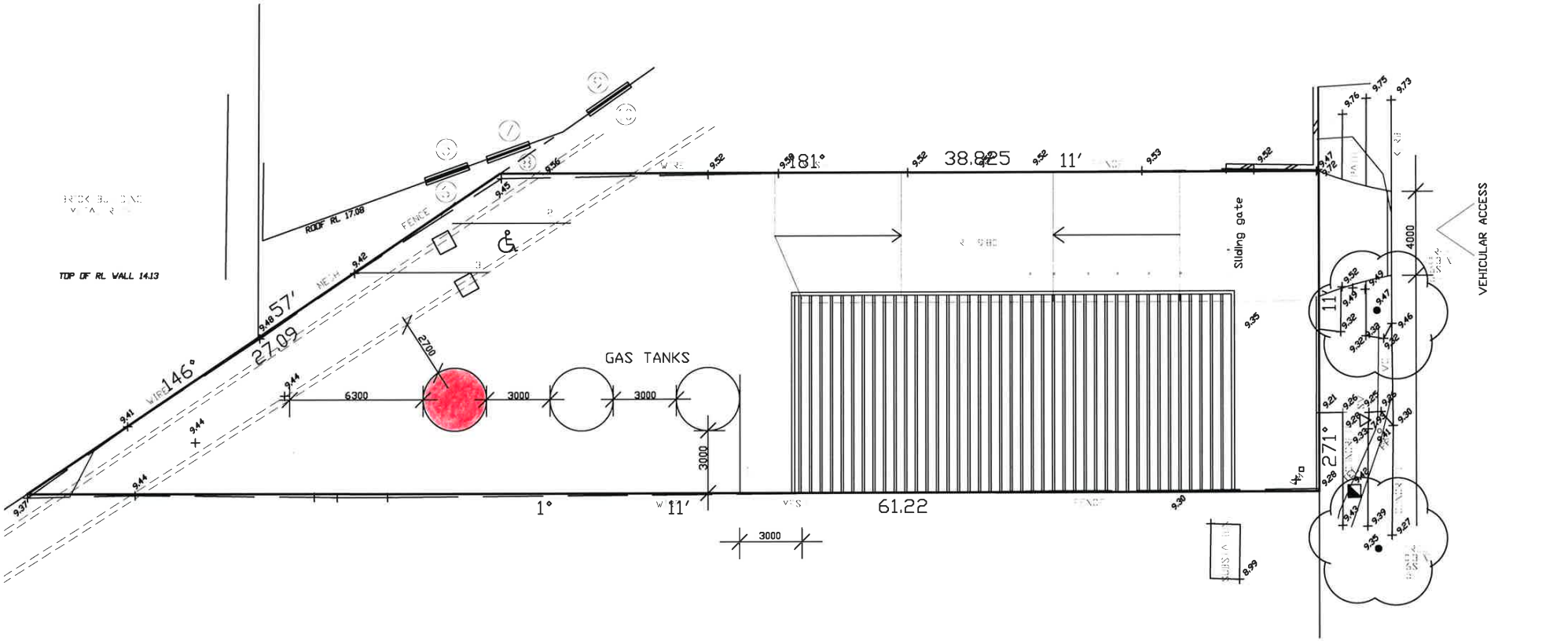
Other Documentation:
Local Authorities requirements, NSW WorkCover and EPA Acts and Regulations.
Equipment Suppliers Specifications, Requirements and Instructions.
Fuel System Specifications and Drawings.
Site Specific drawings and suppliers specifications.

APPENDIX 1
MULTI LEVEL RISK ASSESSMENT FLOW CHART


Preliminary screening
(consequence based)
Is the development potentially hazardous?
(i.e. has it potential for significant injury, fatality, property damage or harm to the environment in the absence of controls)
Use risk screening techniques in Applying SEPP 33
No
PHA Not Required
Yes
PHA Required
Use risk prioritisation techniques in Multilevel Risk Assessment
Carry out risk screening and prioritisation
Assess risk according to HIPAP 6
If significant but not serious potential for harm
If medium potential for harm
If high potential for harm
Not potentially hazardous
(apply codes and standards)
Qualitative analysis
(level 1)
Semi-quantitative analysis
(level 2)
Quantitative analysis
(level 3)

APPENDIX 2
PROPOSED SITE DRAWINGS

SITE CALCULATIONS	
SITE AREA	762.30m2



SITE PLAN

All Dimensions are in millimetres
Written Dimensions preferred to scale
All measurements to be checked on site
All work to BCA and AS
NOT FOR CONSTRUCTION

Client
S JEPSEN, TIM BROWN & THE SPENCER SUPERANNUATION FUND
PO BOX 383
DEE WHY NSW 2099

Project
NEW WAREHOUSE
49 CHARD ROAD
BROOKVALE

Drawing
SITE PLAN

DEVELOPMENT APPLICATION

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Checked	Date
PP	Sep '22
Scale	Issue
1:200	A

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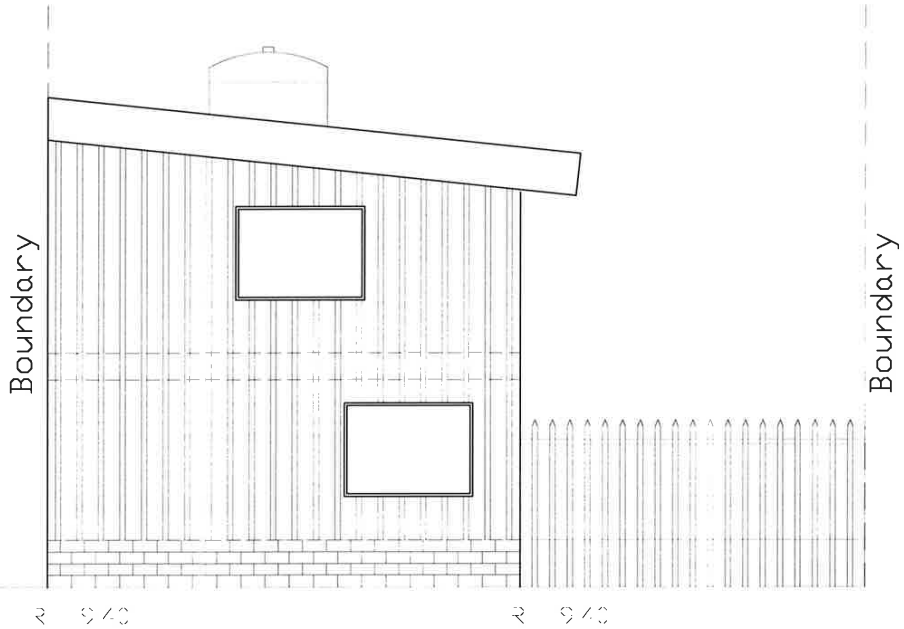

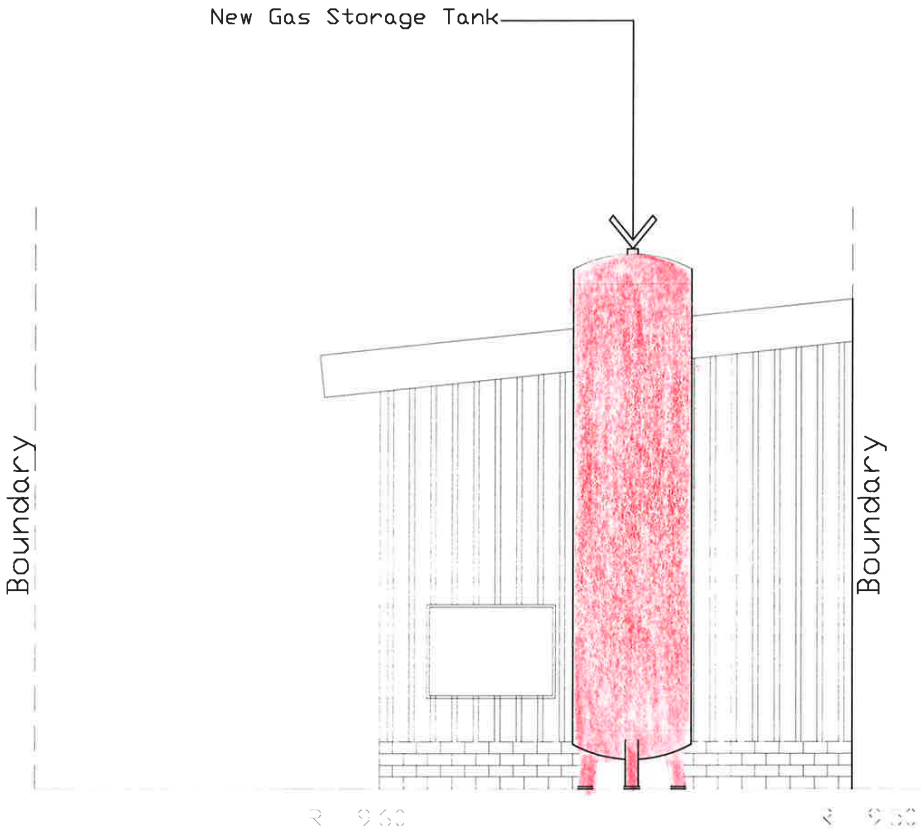

NORTH ELEVATION
Front

SOUTH ELEVATION
Rear

All Dimensions are in millimetres
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Project
NEW WAREHOUSE
49 CHARD ROAD
BROOKVALE

Drawing
ELEVATIONS

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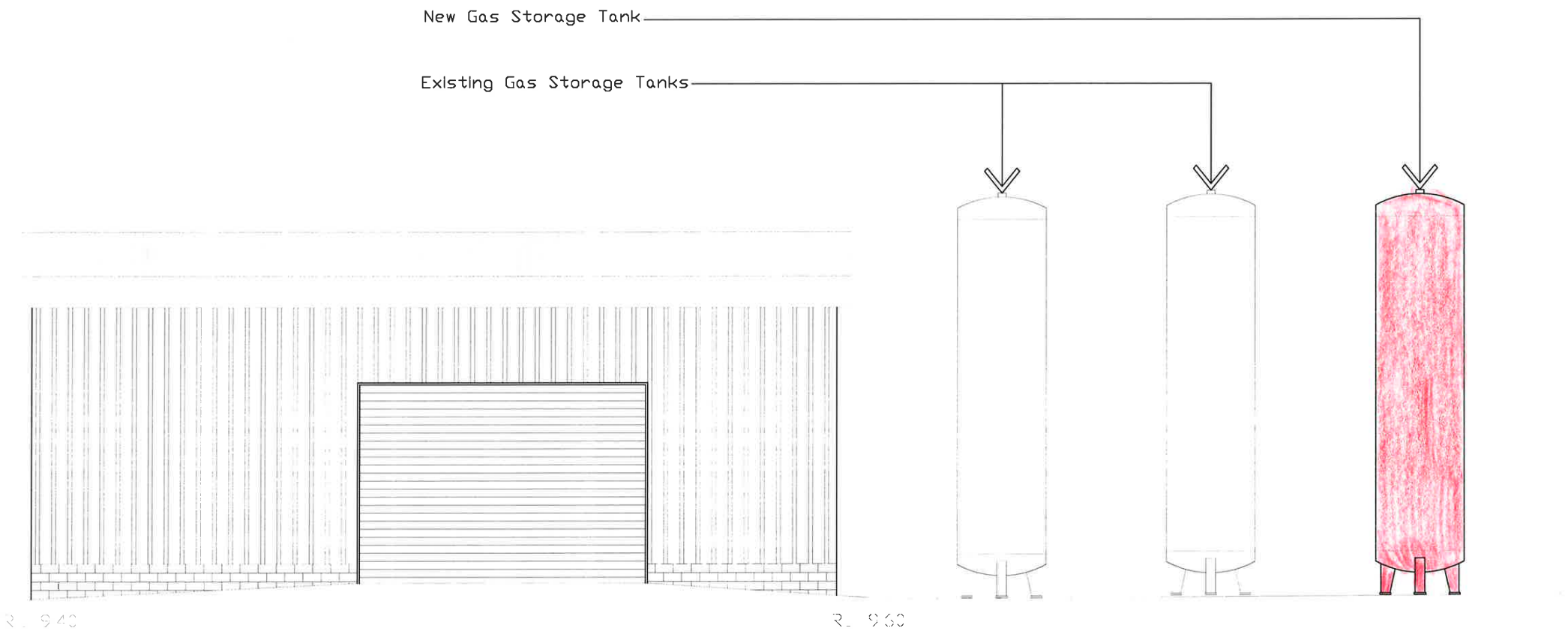

WEST ELEVATION

All Dimensions are in millimetres
Written Dimensions preferred to scale
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Client
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Project
NEW WAREHOUSE
49 CHARD ROAD
BROOKVALE

Drawing
ELEVATIONS

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Checked	Date
PP	Sep '22
Scale	Issue
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Drawing No.
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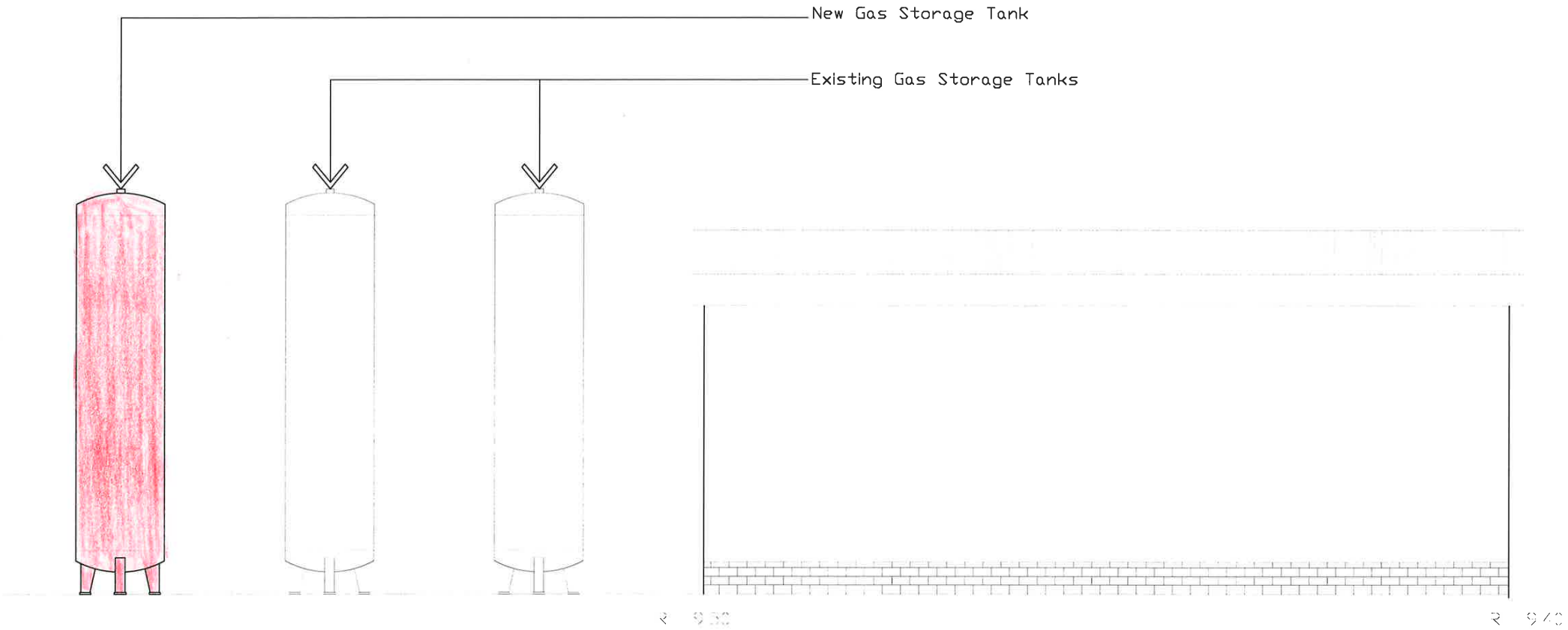

EAST ELEVATION

All Dimensions are in millimetres
Written Dimensions preferred to scale
All measurements to be checked on site
All work to BCA and AS
NOT FOR CONSTRUCTION

Client
S JEPSEN, TIM BROWN & THE SPENCER SUPERANNUATION FUND
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DEE WHY NSW 2099

Project
NEW WAREHOUSE
49 CHARD ROAD
BROOKVALE

Drawing
ELEVATIONS

DEVELOPMENT APPLICATION

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PP	Sep '22
Scale	Issue
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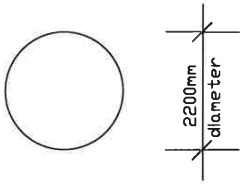
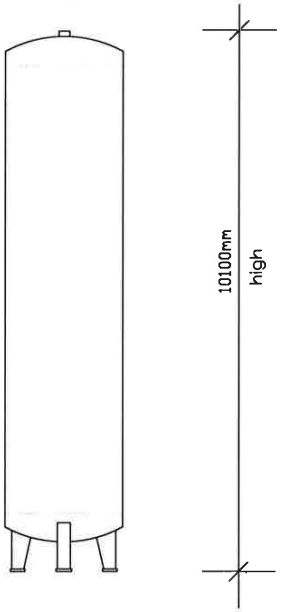
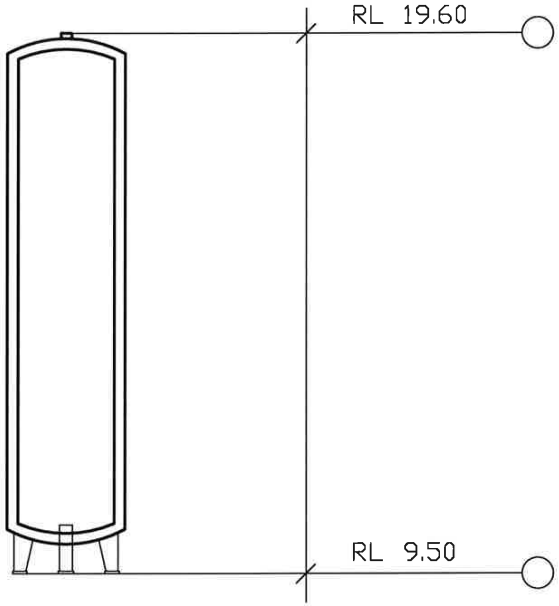


PLAN



TYPICAL ELEVATION



SECTION A-A

CYLINDER

All Dimensions are in millimetres
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All measurements to be checked on site
All work to BCA and AS
NOT FOR CONSTRUCTION

Client
SPEEDGAS
49 CHARD AVENUE
BROOKVALE NSW 2100

Project
PROPOSED STORAGE CYLINDER
31 SYDENHAM ROAD
BROOKVALE NSW 2100

Drawing
CYLINDER DETAILS

DEVELOPMENT APPLICATION

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