

100 Halsey Street

Hazardous Substances Assessment

1101937.1000-RPT-HAZ-101

Prepared for: NZCRE 100 Halsey Limited

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Job Number: 1101937.1000

Date: October 2026

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Document control and review

Title:	Hazardous Substances Assessment - 100 Halsey Street Redevelopment				
Date	**Version**	**Description**	**Prepared by**	**Reviewed by**	**Authorised by**
5 Oct 2026	1.0	Draft for preliminary client review	R Turnwald	R Van de Munckhof	A Hope
16 Oct 2026	2	Updated report for client review	R Turnwald	R Van de Munckhof	A Hope

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Executive summary

This report details the risk assessment and hazardous substances effects of the proposed data centre in Building B2 at 100 Halsey Street, Auckland Central.

The Auckland Unitary Plan Operative in Part ("AUP") includes standards for the storage and use of hazardous substances in Chapter E31, which applies to diesel as a combustible liquid with chronic toxicity and aquatic ecotoxicity properties. The proposal exceeds the permitted and restricted discretionary quantity for the use and storage of hazardous substances for the Business – City Centre Zone, and therefore a resource consent is required as a Discretionary Activity.

Chapter E36 includes rules relate to the storage of hazardous substances in areas subject to natural hazards. A fringe area of B2 is subject to the 1% annual exceedance probability (AEP) flood plain and is subject to coastal inundation with 1 m sea level rise and a 1% AEP event. Under Rule E36.4.1(A29) (and A84 under Plan Change 120), the storage of hazardous substances within the floodplain is a Restricted Discretionary Activity. Additionally, under Plan Change 120, hazardous substance storage in a coastal hazard area is a permitted activity under Rule E36.4.1 (A64).

Smaller quantities of hazardous substances such as biocides for cooling water treatment, paints or oils for machinery maintenance, refrigerant gases or transformer oil are not anticipated to exceed the permitted activity thresholds and will be managed in accordance with the building's hazardous substances management plan.

Bulk diesel tanks are proposed to be located in a dedicated room in the basement level in addition to day tanks on Level 5 of the building, to supply backup power generators. Smaller tanks are anticipated for the fire pump room on the ground floor. The tanks associated with backup power generation will be 4-hour fire-rated, double skinned for leak prevention and include leak detection systems. The bulk tanks in the basement will be refuelled when required at the truck dock on the ground floor by specialist fuel delivery contractors trained in safe unloading procedures and spill response.

The Health and Safety at Work (Hazardous Substances) 2017 regulations stipulate the legal requirements for tank design and operational management measures including for signage, secondary containment, tank specifications, fire extinguishers and independent compliance certification of the stationary container system. These requirements are independent of the AUP but serve as controls that will minimise the impact of diesel storage on people, property and the environment.

Detailed fire engineering design will be undertaken to effectively isolate the battery energy systems associated with the uninterrupted power supply on Level 1 and 2 from the bulk fuel storage in the basement. This will include separation of battery modules, use of fire-rated construction elements and provision of fire suppression systems. This will also be incorporated into the equipment selection and design to include battery management systems that monitor, control and optimise the performance of the battery modules and raise alarm if abnormal conditions arise.

The proposed development is adjacent to a flood plain and the building design will incorporate freeboard as detailed in the Coastal and Flood Risk Assessment (Tonkin & Taylor Ltd, 2026). The effects of the diesel storage in the basement levels below the coastal inundation and flood levels has been considered.

Given consideration of the location, equipment selection and controls listed above, the risk of fire at the tanks, spills of diesel or flooding at the site have been assessed as low and the effects as less than minor.

1 Introduction

1.1 Overview

Tonkin & Taylor Ltd (T+T) has been engaged by NZCRE 100 Halsey Limited (NZCRE) to prepare this hazardous substances assessment to support the substantive application submitted by NZCRE 100 Halsey Limited for a referred project under the Fast-track Approvals Act 2024 (FTAA) in respect of the 100 Halsey Street project (the 'Project').

The Project seeks to deliver a high-quality mixed-use commercial precinct of five buildings comprising premium office accommodation, retail and food and beverage uses and a purpose-built data centre in building 2 (B2). The data centre building will accommodate the specialist plant, infrastructure and servicing requirements associated with the data centre use, while also incorporating centralised infrastructure to support the wider development. This assessment principally relates to the operation of the data centre.

The Auckland Unitary Plan (AUP) includes standards for the storage and use of hazardous substances. B2 will include diesel storage in the basement for supply to the 13 back-up generators. The proposed maximum diesel storage capacity is up to 190,000 L, across four bulk storage tanks, with pipework connecting to the generators on Level 5. Each bulk tank will be self-bunded, 4-hour fire-rated and include leak detection sensors. B2 will also house battery cabinets (likely lithium ion) providing up to 2.51 MWh and 13 transformers containing insulating oils, water-based cooling systems and associated maintenance and cleaning products. Other buildings proposed at the Project are commercial in nature and are not expected to hold appreciable quantities of hazardous substances above the thresholds set in the AUP.

This assessment considers the relevant AUP provisions contained in Chapter E31 for Hazardous Substances and specific clauses relating to hazardous substances in Chapter E36 for Natural Hazards. There are no listed industrial or trade activities undertaken outdoors as part of the data centre operation, therefore the provisions of Chapter E33 for Industrial and Trade Activities are limited to compliance with the permitted activity standards for use of land for an unlisted Industrial and Trade Activity.

The proposal exceeds the permitted and restricted discretionary quantity for the use and storage of hazardous substances for the Business – City Centre Zone, and therefore a resource consent for hazardous substances storage is required as a Discretionary Activity.

1.2 Assessment scope

This report has been prepared to:

- Describe the sensitivity of the local environment to effects associated with hazardous substances.
- Describe the activities at the data centre in terms of the nature and scale of the hazardous substances proposed to be stored and used.
- Provide a brief summary of the structural controls that will be in place, as understood at his stage in the design process.
- Identify the consent status of the proposed hazardous substances storage under the AUP.
- Analyse the hazards and risks associated with the activity to determine the residual risks to people, property or ecosystems.
- Provide an assessment of effect of the hazardous substances storage to people, property and ecosystems in the area, based on the identified residual risks.

Tonkin & Taylor Ltd has been engaged by NZCRE to prepare this Hazardous Substances Assessment to support the substantive application.

2 Environmental setting

2.1 Site location

The site is located at 100 Halsey Street, Auckland Central, within the Wynyard Precinct (formerly known as the Western Reclamation) as shown in Figure 2.1 and Figure 2.2 below.

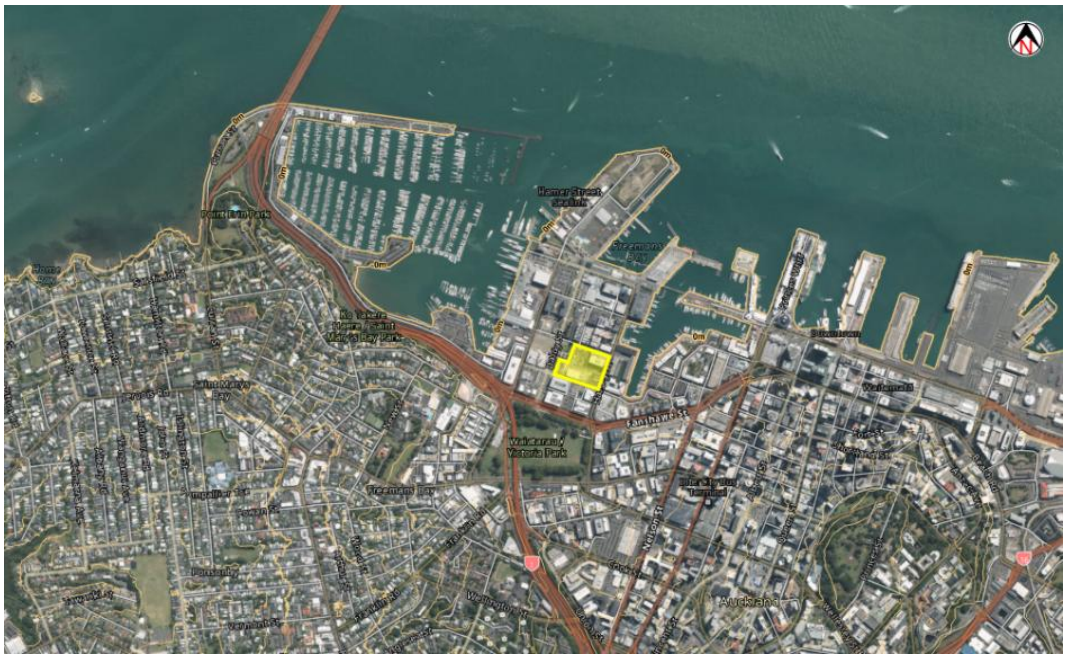


Figure 2.1: Site location (outlined in yellow).



Figure 2.2: Site location. Project area shown in yellow. Existing structure shown in red, which is outside of the scope of this assessment.

2.2 Proposed development

The proposed Project includes five new buildings, in addition to the existing Travelodge building, as shown in Figure 2.3.

The five buildings are arranged around a central mid-block plaza, bounded by Gaunt Street, Halsey Street, Pakenham Street and Daldy Street / Amey Daldy Park.

- Building 1: Commercial Office Building corner Halsey Street and Gaunt Street.
- Building 2: Data Centre, sited centrally between B1 and existing Travelodge.
- Buildings 3A / 3B: Commercial Office buildings fronting Amey Daldy Park.
- Building 4: Commercial Office on Gaunt Street.
- Building 5: Commercial Office on Gaunt Street between Building 4 and VHHL site.

Of these, only B2 (orange outline in Figure 2.3**)** is anticipated to store and use hazardous substances in quantities that may exceed the permitted activity thresholds of the Auckland Unitary Plan.



Figure 2.3: Proposed development massing (sourced from Peddlethorp Architectural Plans Drawing 2153 1-100 dated 19 Oct 2026).

2.3 Built environment

Different land uses and receiving environments have a varying level of sensitivity to the effects associated with hazardous substances. These activities are listed below in order of reducing sensitivity (i.e. starting with the most sensitive):

- School, child-care facilities and aged care facilities.
- Residential areas and activities involving places of continuous occupation such as hotels.
- Sporting complexes and activity open spaces.
- Commercial developments including activities such as offices, retail centres and restaurants.
- Light and heavy industrial activities.

The Project is located directly west of the Viaduct Basin Marina and north of Fanshawe Street in a dense urban environment surrounded by retail activities, restaurants and commercial offices. The nearest school is St Mary's College, over 500 m to the southwest of B2. There are no childcare centres or other schools in closer proximity to the development site.

In the northeast corner of site, immediately north of B2, an eight-storey structure hosts a supermarket, carpark, hotel, and several restaurants. This structure, the Travelodge building, is expected to remain unaltered as part of the Project. The Travelodge accommodation activity is on the Pakenham Street West side of the building, providing some internal separation from the B2 building. The Sofitel hotel and residential apartments across Halsey Street to the east are also close, approximately 20 m from B2.

A public recreational space, Amey Daldy Park, is approximately 90 m west of B2 and includes a recently developed wastewater pump station, built in 2020. The site development also includes a mid-block plaza immediately to the west of B2 for public recreation. The other proposed buildings within the Project site (B1 and B3 – B5) are proposed to be commercial offices. The public spaces and private offices have a generally moderate sensitivity to the effects of hazardous substances.

Overall, the surrounding built environment has moderate (at commercial locations) to high (at the residences and hotels) sensitivity to effects on human health or property in the event of a spill or fire involving hazardous substances.

2.4 Natural environment

The site occupies a highly modified environment, dominated by impervious surfaces and man-made structures. The most sensitive environment in the vicinity is the Auckland Waterfront coastal marine environment in the Viaduct Basin located approximately 100 m to the east of the Project, as shown in Figure 2.2. The Viaduct Basin is an enclosed marina space within the Waitematā Harbour.

The AUP does not identify any Significant Ecological Areas (SEAs) within the nearby Auckland Waterfront area.

The waterfront coastal environment is characterised by soft tidal muds and experiences a high volume of marine vessel traffic. The area has previously been assessed as having low intrinsic aquatic ecological value[1]. However, this environment is still susceptible to harm in the event of a spill of ecotoxic materials, and is therefore considered sensitive to ecotoxicity effects.

2.5 Flooding

The site within an area subject to coastal inundation hazard due to sea level rise according to the AUP hazard overlays, as detailed in the Coastal Hazard and Risk Assessment (T+T 2026). Figure 2.4

[1] As assessed in Quay Street, Ferry Basin Section - Marine Ecological Assessment, Tonkin & Taylor Limited. 2018.

and Figure 2.5 illustrate the coastal inundation and flood plains in the vicinity of the Project as shown on Auckland Council Geomaps.

As shown on Figure 2.4, B2 has some exposure to coastal inundation with 1 m sea level rise and a 1% AEP event, increasing to all of B2 being exposed to 1.5 m sea level rise.

Figure 2.5 shows the site exposure to rainfall induced flooding, which indicates some flooding on the eastern side of B2 in a 1% AEP event (Annual Exceedance Probability) with allowance for 3.8 degrees of climate change. The floodplain characteristics at B2 are indicated as low hazard.

The part of the eastern edge of the site is subject to both the Coastal Inundation 1 per cent Annual Exceedance Probablility (AEP) Plus 1 m hazard overlay in the AUP and the 1 per cent AEP flood plain in the Auckland Council Flood Viewer.

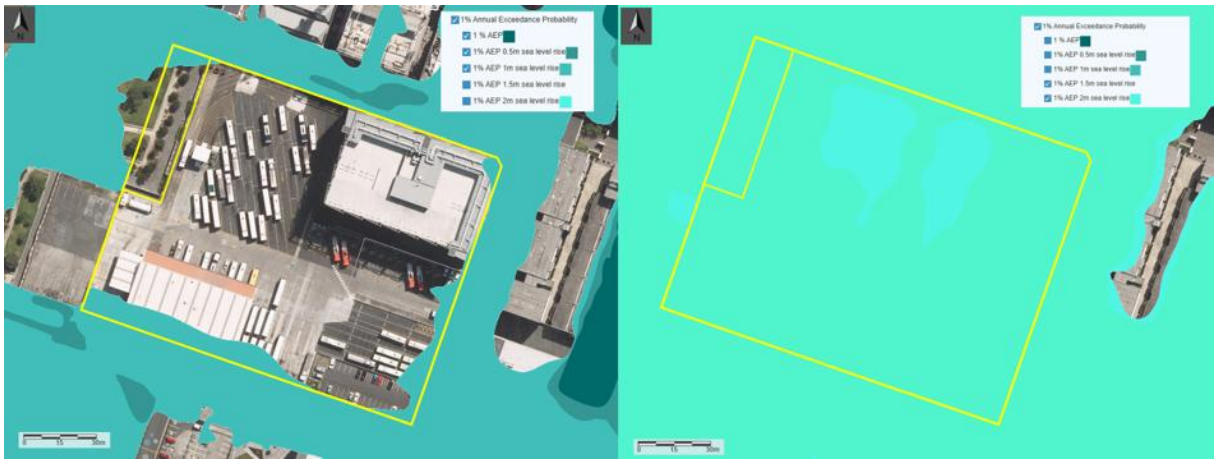


Figure 2.4: Coastal inundation overlays for coastal inundation at 100 Halsey Street for 1%AEP, 0.5 m and 1 m RSLR (LHS) and 1.5 m and 2 m RSLR (RHS).

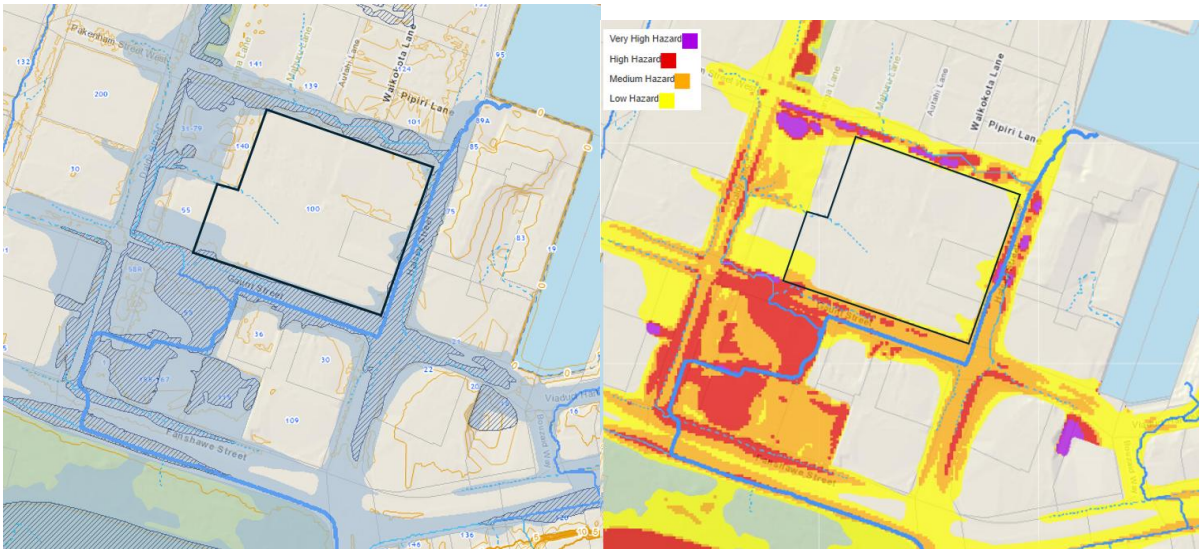


Figure 2.5: Flood prone areas and flood plains (Left), Flood hazard area classification (Right) (Source: AC GIS Viewer, September 2026).

3 Description of proposed activity

3.1 Overview

Building B2 is proposed to have seven levels, including a basement, ground level, five upper floors and a gantry at the roof level. The hazardous substances associated with the proposed data centre include:

- The storage of up to 190,000 L of diesel across four bulk tanks on the basement level for supply of fuel to the back-up generators on Level 5;
- Battery energy storage comprised of a connected series of battery cells that store energy for short-duration ride-through of the data centre loads to provide Uninterrupted Power Supply (UPS). The data centre is proposed to host approximately 49 battery cabinets providing up to 2.51 MWh across 13 rooms on Level 1 and Level 2 of the building, with 13 associated transformers containing insulating oil.
- Twelve air-cooled chillers circulating chilled water on the Gantry (roof) level, with six buffer water tanks (42,000 L each).
- Ancillary maintenance and cleaning activities are expected to require storage of small quantities of products such as coolant, aerosols, oils, water treatment chemicals, maintenance and cleaning products (as covered in Table 3.1) within the building principally on the ground floor.

As noted in Section 1.1, the proposed diesel storage capacity will be provided by up to four bulk tanks in the basement and small day tanks connected to the generator sets. These tanks will supply the main back-up power generation facility servicing the buildings. The tanks will be 4-hour fire rated, self-bunded (double skinned) and include leak detection sensors.

When required, the bulk fuel tanks will be refilled with diesel gravity fed from a connection point to be located in the truck dock or from the services lane (Lane 2) on the ground floor (subject to detailed design). Interior fuel lines then allow diesel to be pumped to the generators on Level 5 as required. All deliveries will be supervised by delivery contractors equipped with a spill kit and trained in spill response.

Other hazardous substances that may be used on-site are likely to include packaged products for cleaning and disinfection of mechanical water systems in the building, such as biocides, scale control, corrosion control or maintenance products such as aerosols, cutting gases, adhesives, and paints. Illustrative quantities of these substances are provided for in this assessment. Where required, these will be kept in closed containers within a bunded enclosure in a secure plant area. It is highly unlikely that the quantities of these substances will exceed permitted thresholds described in the AUP discussed further in Section 5.

3.2 Nature and quantity of substances

The Project is currently in Stage 1 Design, and many details relevant to hazardous substances will be defined further through the detailed design process. For the purpose of this assessment, volumes of hazardous substances proposed to be stored in building B2 and their relevant hazard classification are estimated in Table 3.1 below. These volumes have been informed by the data centre design team and selected to provide a conservative upper estimate of the hazards that may be associated with the data centre. We note in particular that the quantity of diesel is the maximum permitted within a building for supply of a burner under Clause 17.63(2)(a) of the HSW-HS and that this quantity will be refined through detailed design of the fuel system. Specific quantities and classifications of other substances including packaged products for cleaning and disinfection of

mechanical water systems in the building are not known, but have been estimated based on safety data sheets for similar products available in New Zealand.

Batteries may contain hazardous substances but are generally treated as 'manufactured articles', rather than hazardous substances, where their contents remain contained and their intended use does not involve the release of those contents[2].

The cooling system proposed will use a closed chilled-water loop that is air cooled at the roof level, and therefore glycol-based coolants are not anticipated.

Classifications for hazardous substances are assigned under the Globally Harmonised System (seventh revised edition) (GHS7), which was adopted in New Zealand in 2021. Both the former classifications assigned under the Hazardous Substances and New Organisms Act 1996 (HSNO) and the equivalent GHS7 classification are presented in the table below, because the HSNO classifications are still commonly used and understood in New Zealand and are referred to within the relevant health and safety regulations and the AUP. HSNO classifications are used throughout this report for consistency with the current regulations.

Table 3.1: Hazardous substance inventory

Substance	Classification (HSNO and GHS7)		Maximum quantity	State	Location
Diesel	3.1D 6.7B 6.1E 9.1B	Flammable liquid Category 4 Carcinogenicity Category 2 Aspiration hazard Category 1 Aquatic ecotoxicity Category 2	<190,000 L	Liquid	Bulk tanks within Basement
					Day tanks at each generator on Level 5
					< 500 L tanks in the fire pump room on ground floor
Transformer oil	6.1E	Aspiration hazard Category 1	13,000 L	Liquid	Within transformers (up to 13) on Level 1 and 2
Refrigerant gas (e.g, 1,1,1,2-tetrafluoroethane	NH	Non-flammable, non-toxic gas	< 2,000 kg[A]	Gas	Air-cooled chiller systems
Biocide	9.1D	Aquatic ecotoxicity Category 2	200 L	Liquid	Workshop – used in water treatment systems on gantry
Antiscalant	6.1D 8.3A 8.2B	Acute oral toxicity Category 4 Serious eye damage Category 1 Skin corrosion Category 1B	200 L	Liquid	Workshop – used in water treatment systems on gantry

[2] Environment Protection Authority, 2011. Manufactured Articles: Information Sheet. EPA0145. October 2011.

Substance	Classification (HSNO and GHS7)		Maximum quantity	State	Location
pH adjustment	6.1D 8.3A 8.2B	Acute oral toxicity Category 4 Serious eye damage Category 1 Skin corrosion Category 1B	200 L	Liquid	Workshop – used in water treatment systems on gantry
Dispersant	NH	Not classified as hazardous	200 L	Liquid	Workshop – used in water treatment systems on gantry
Flammable liquids (paints, solvents)	3.1B – 3.1C 6.1D 6.4A 6.7B 9.1B	Flammable liquids Category 2 – 3 Acute toxicity oral Category 4 Serious eye damage Category 2A Carcinogenicity Category 2 Chronic aquatic toxicity Category 2	500 L	Liquid	Workshop – up to two 250 L cabinets
Aerosols (adhesives, lubricants, sealants)	2.1.2A	Flammable aerosol Category 1	50 L	Aerosol	Workshop
Maintenance oils, greases	NH	Not classified as hazardous	200 L	Liquid	Workshop
Acetylene	2.1.1A	Flammable gas Category 1A	14 m^3 (two cylinders)	Gas	Workshop
Oxygen	5.1.2A	Oxidising gas Category 1	16 m^3 (two cylinders)	Gas	Workshop

A. Required quantity not able to be estimated at this stage in the design, however, the permitted activity quantity is expected to be sufficient as a conservative upper case.

4 Management controls

4.1 General hazardous substances controls

Storage and use of all hazardous substances on-site must comply with the provisions of the Health & Safety at Work (Hazardous Substances) Regulations 2017 (HWS-HS).

Diesel is proposed to be stored in bulk and used in generators in Building B2, and therefore will trigger specific requirements in the HSW-HS that are discussed separately in Section 4.2.

Any other hazardous substances required at the data centre will serve ancillary functions (such as biocides for cooling water treatment) and are expected to be present in far smaller quantities. While it is not expected that the ancillary hazardous substances will be present on-site in volumes that will trigger specific controls under the HSW-HS, general hazardous substances management requirements will apply. These include:

- Segregation of incompatible materials:
  - Substances that may have adverse interactions when mixed (such as acids and alkalis) must be stored separately.
- Signage:
  - That communicates the type of hazards present within an area, precautionary statements and immediate emergency response actions.
- Labelling:
  - All hazardous substances must be clearly labelled to identify the product and the substance hazards.
- Personal Protective Equipment ("**PPE**"):
  - PPE must be provided to staff when handling substances that are hazardous on contact, such as toxic or corrosive substances. This extends to providing suitable PPE in spill kits for use in cleaning up spills.
- Dedicated storage:
  - Ensuring that any dedicated storage locations enable spills to be isolated and cleaned up, and are separated from drainage systems that connect to the surrounding environment (in this case the Waitemata Harbour). For flammable liquids, storage must be within cabinets that comply with *AS 1940 The storage and handling of flammable and combustible liquids*.
- Documentation:
  - An inventory of hazardous substances present on site must be maintained and must capture the substances quantity, applicable hazard classifications, storage location, and safety data sheets.

4.2 Diesel tank management

4.2.1 Overview

This section describes restrictions and requirements for the proposed diesel tanks specified under the following:

- Health & Safety at Work (Hazardous Substances) Regulations 2017 (applicable to Class 1 to 8 hazardous substances);
- Health and Safety at Work (Hazardous Substances – Above Ground Stationary Tanks Connected to a Generator Set) Safe Work Instrument 2017 (and amendment 2019), applicable to tanks smaller than 6,000 L connected to generator sets – Section 17.64; and
- Health and Safety at Work (Hazardous Substances—Reduced Secondary Containment for Certain Above Ground Stationary Tanks) Safe Work Instrument 2017, applicable to tanks with integral secondary containment – Section 17.63.

Specific controls that will apply to the refuelling of the bulk tanks from the connection in the truck dock area are also described.

The bulk tanks will be 4-hour fire-rated, double skinned for leak prevention and include leak detection systems.

4.2.2 Health and Safety at Work (Hazardous Substance) Regulations

The storage of hazardous substances at the Site is subject to requirements specified in the Health & Safety at Work (Hazardous Substance) Regulations 2017 (HSW-HS).

The restrictions and requirements relevant to the proposed diesel storage activities are described in the following tables:

- Table 4.1 describes the design and construction requirements relating to the tanks and storage systems; and
- Table 4.2 describes requirements relating to on-going operations.

The Project is required to comply with all applicable regulations and this assessment is carried out on the basis that the controls set in the regulations will be implemented. Information relating to tank selection provided to date as part of the detailed design indicates that these controls will be readily achieved within the Project.

Table 4.1: Design and construction requirements

Requirement	Detail
Secondary containment	Secondary containment for at least 110% of the largest tank capacity is required. However, where integral ("double-skinned") containment is provided, it must comply with the *Health and Safety at Work (Hazardous Substances—Reduced Secondary Containment for Certain Above Ground Stationary Tanks) Safe Work Instrument 2017* which reduces the minimum capacity to 100% of the tank volume.
Tank design	Compliance with Clauses 17.6 to 17.12 of the HSW-HS Regulations including requirements for pressure management, lightning and stray current protection, seismic and wind loadings and liquid level indicators (documentation to be provided by the tank supplier).
Exhaust and vents	Any vent pipe, relief valve, or overfill pipe that is part of the stationary container system terminates outside the building, except an emergency vent installed on a tank that complies with SwRI 95-03.
Tank installation	The tank must be installed on foundations that will prevent subsidence of the ground that endangers safety. The diesel must not discharge or leak from any part of the stationary container system within the building.
Tank delivery system to the generator	The tank and delivery system to the generators must comply the following: • The transfer point used for filling the stationary container system with the hazardous substance is located outside that building; • Flow from the tank to the generators must be modulated to match the capacity of the generator engine; • The supply to each generator must be cut off if the temperature of the air above the engine reaches 90°C; • Delivery pumps are to be separate from the secondary containment system; • Non-return valves or other means of preventing the stored hazardous substance from draining from a tank in the event that pipework that is part of the system fails. The device is to be located at the tank. This requirement does not apply to the service tank for the external generator if the diesel storage capacity is less than 500 L; and • Flow from the tank is required to be automatically cut-off in the event of a fire near the system. The cut-off is to be located at the tank.
	Pipework associated with the tank and delivery system is designed, constructed, installed, operated, inspected, tested, and maintained so as to ensure the pipework is suitable for all reasonably foreseeable working pressures, temperatures, and structural stresses. The pipework up to the first connection with the internal combustion engine must be constructed of fire-resistant and corrosion resistant materials, installed securely and tested to ensure the pipework does not leak at a pressure the greater of 350 kPa or 1.5 times the maximum working pressure of the pipework.
	Any transfer point used for filling the tank must be a non-return valve compliant with section 6.3.1(b) of AS 1940:2017. The design, construction and installation of the transfer lines for filling the tanks must comply with Clause 17.72(3)(a) of the HSW-HS regarding the design standard.

Requirement	Detail
Separation from protected places[1] (other buildings and boundaries).	Minimum separation between the tanks (assuming maximum capacity of 50,000 L) is 1 m. For each bulk tank (assuming max individual capacity of 50,000 L): Minimum separation of 5 m from a protected place. For each day tank (<500 L each): For any generator day tanks or fire pump tanks smaller than 500 L, 0 m separation requirement applies. The separation distances to protected places required by HSW-HS must not be calculated beyond the boundary of the property unless the owner, lessee, sub-lessee, occupier, or person in possession of any property beyond that boundary (the adjacent property) agrees in writing that the separation distance may be calculated to include the adjacent property.
Tank certification	A stationary container system compliance certificate under Part 17 of the HSW-HS is required for all systems with capacity greater than 5,000 L. This verifies that the design and installation meet requirements for foundation stability, secondary containment, pressure management, liquid fill level management and monitoring of the interstitial space (double skin) to detect any leaks.

Note:

1. A **protected place** includes 'any factory, workshop, office, store, warehouse, shop, or building where persons are regularly employed, whether within or outside the property boundary of a place where a hazardous substance location is situated.' A protected place excludes a small office or other small building associated with a place where storage, handling, use, manufacture, or disposal of a class 3 substance is major function.

Table 4.2: Ongoing operational requirements

Requirement	Detail
Fire extinguishers	2 extinguishers required wherever there is more than 500 L of Class 3.1D flammable liquid in aggregate and is therefore applicable to the proposed tank locations.
Signage	The requirement for signage is triggered by the volume of liquid with Class 3.1D (flammable) and 9.1B (eco-toxic) hazard classifications. The trigger volumes are: • Class 3.1D: 10,000 L and • Class 9.1B: 1,000 L. Signs should be displayed at the building entrance, next to the storage area (or on the tanks), contain the words HAZCHEM, the relevant pictograms and hazard statements, and state the precautions necessary to prevent unintended ignition of the diesel.
Emergency Response Plan	The requirement for an emergency response plan is triggered by the volume of liquid with Class 3.1D (flammable), 6.7B (suspected carcinogenic) and 9.1B (ecotoxic) hazard classifications. The trigger volumes are: • Class 3.1D: 10,000 L; • Class 6.7B: 10,000 L; and • Class 9.1B: 1,000 L. An Emergency Response Plan should describe the emergency procedures for a site and take into account any foreseeable emergency such as a fire, spill or injury. Emergency Response Plans must be regularly tested.
Site plan	A site plan is required that describes the physical position of the stationary container systems in relation to the legal boundary of the site in which the hazardous substance is located, and: • If any separation distance required by these regulations extends to within 5 m of the legal boundary of the workplace, the location of that legal boundary; and • Every building; and

Requirement	Detail
	• Every other stationary tank used to store a hazardous substance at the workplace; and • Every storage area for packages containing hazardous substances; and • Every storage area for gas cylinders; and • Every secondary containment system for any stationary tank that is part of the system; and • All fire-fighting equipment and facilities, including firewalls and vapour barriers; and • Every transfer point for a class 2.1.1 or class 3.1 substance.
Segregation of incompatible substances	Segregation of diesel from Class 1, Class 2, Class 3.2, Class 4 and Class 5 substances.

4.2.3 Refuelling of bulk tanks

The bulk diesel tank fill point will be located in the truck dock at ground level or in the services lane (Lane 2) north of B2 as shown in the plans in Appendix B. The fill point will be separated from the nearest existing stormwater catchpit, which will be clearly marked to communicate that it is for stormwater only.

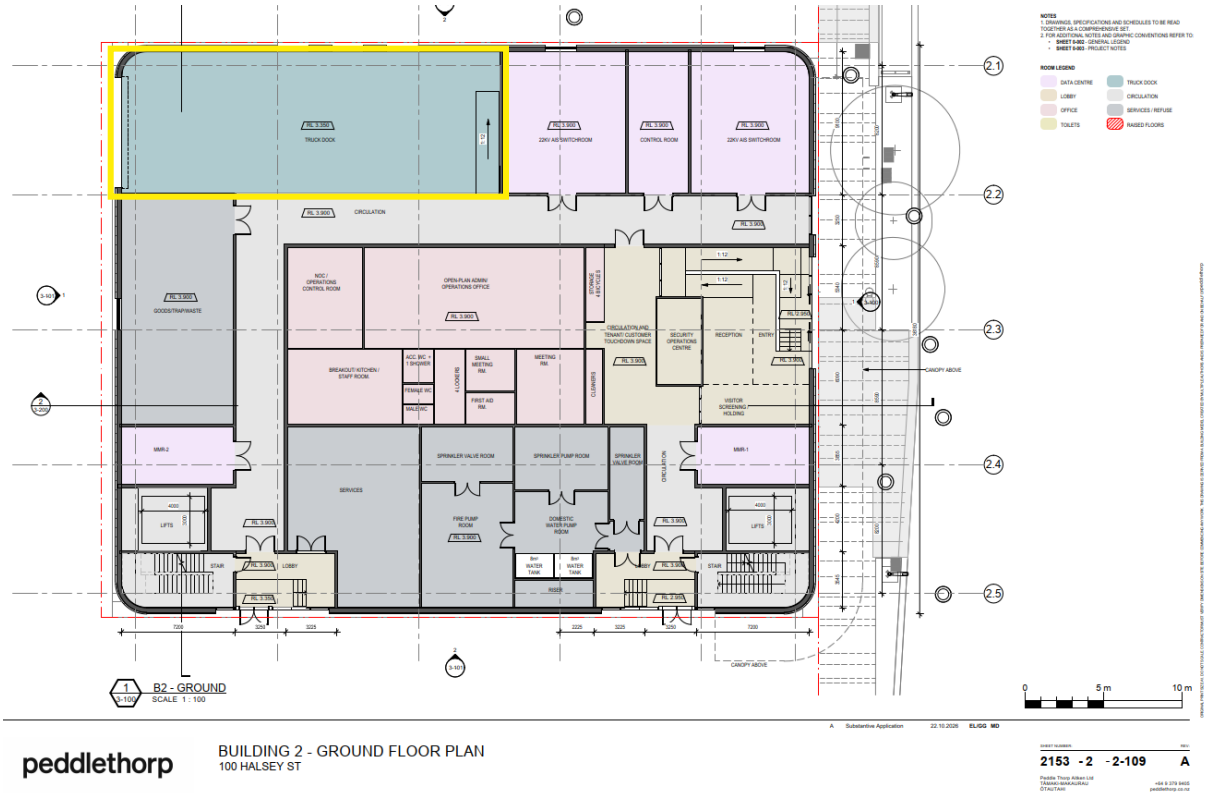


Figure 4.1: Truck dock (yellow) at the ground floor of B2. Source: Peddlethorp Drawing Sheet 2153- 2 2 – 109.

A diesel fill point panel will display the gauge level of each bulk tank and will indicate when the high-level alarm has been activated. Each bulk tank will have an overfill protection valve to automatically shut-off delivery once the safe fill level is reached.

The connection to the fill point from the refuelling truck will use ‘dry-break’ couplings, which have internal valves that prevent fuel from flowing until the coupled connection is secure, and close

before being disconnected to prevent spills of residual fuel in the hose. A spill containment tray will be used around the fill point.

Refuelling contractors will be equipped with spill kits and trained in emergency spill response. Transport of diesel is carried out in accordance with the Land Transport Rule: Dangerous Goods 2005, which includes requirements for placarding, equipment (spill kits and extinguishers), documentation and driver training.

4.3 Battery system management

The battery systems on Level 1 and 2 present a potential source of ignition due to the risk of thermal runaway, which may occur in a battery cell as a result of overheating, damage, overcharging or mechanical failure. The battery systems will incorporate a range of passive and active safety control and electrical fault protections to prevent thermal runaway conditions or minimise their consequence[3], including:

- Continuous monitoring of voltage, temperature, state of charge and battery health;
- Automatic alarm and isolation on abnormal temperature, voltage or current;
- Cabinet-level protective devices, contactors and fault isolation;
- Connection into the site Battery Management System (BMS) and Electrical Power Monitoring System (EPMS) for remote alarm and monitoring;
- Dedicated fire detection within the battery rooms;
- Fire-rated separation of individual battery rooms from adjoining spaces; and
- Manufacturer-specific thermal-runaway mitigation / propagation controls within the cabinet system.

The batteries will incorporate an autonomous Battery Management System, which will monitor and protect the battery, with operators on site to respond to alerts and fault alarms, if required.

4.4 Hazardous waste

Hazardous waste is not anticipated as part of the regular operation of the data centre, but may arise in the event of a spill of diesel during tank refuelling or during handling of packaged hazardous liquids at the workshop. Spill kits will be in place at the liquids storage areas, for use to contain and clean up any spilled material for removal from site.

The removal of any hazardous wastes from the site shall be carried out by an approved waste contractor and disposed of at an authorised hazardous waste facility.

4.5 Hazardous substances management plan

A Hazardous Substances Management Plan ("**HSMP**") is proposed to be developed for the Data Centre as a condition of consent. The HSMP will detail the controls in place at the site to manage hazardous substances and minimise the risk of release of these substances into the surrounding environment.

The HSMP shall detail the roles and responsibilities, important contact details, a hazardous substance register, pollution risks and detailed controls, spill response, emergency management, and requirements for site inspections, monitoring, staff training, audit and regular review of the HSMP.

[3] Controls listed provided by Black & White Engineering by email, 12 October 2026.

It will include a spill response plan outlining the response procedures for managing any accidental release of hazardous substances, along with the minimum requirements for the location of spill kits across the site.

4.6 Fire-fighting systems and emergency response

Sprinkler tanks and fire pumps are proposed to be located either in the basement or on the ground floor, as shown on the plans in Appendix B. The building sprinkler system shall meet at minimum the requirements of *NZS 4541:2020 Automatic fire sprinkler systems* for design, installation, and system maintenance.

A site-specific emergency response plan will be prepared in coordination with Fire and Emergency New Zealand (FENZ) to set out the guidance on identifying emergency scenarios and the procedures for system isolation, fire-fighting and suppression and site evacuation.

Detailed fire engineering design is proposed to identify suitable fire-rated building construction elements and automated fire suppression systems to address specific hazards at the UPS battery systems.

4.7 Transport of hazardous substances

Deliveries of hazardous substances will use State Highway 1, accessible approximately 500 m from the Project site via Fanshawe Street.

Fuel deliveries will be made by the Data Centre operator's specialist supplier.

Any transport of hazardous substances will be in accordance with the Land Transport Rule: Dangerous Goods 2005, which includes requirements for packaging, labelling, loading restrictions, segregation of incompatibles, unloading inspections and recurrent driver training.

5 Resource consent activity status

5.1 Hazardous Substances – Chapter E31

The Hazardous Substances provisions are set out in Chapter E31 of the AUP.

Activity Table E31.4.3 sets out the Permitted Activity and Restricted Discretionary volumes for hazardous facilities in Auckland. Evaluation of the consent status for the storage of hazardous substances in the Business – City Centre Zone is provided in Table 5.1 below.

All hazardous substances storage at the site will be more than 30 m from the nearest watercourse (the Viaduct).

A Discretionary Activity status is applied under Rule (A7) for hazardous facilities that store or use hazardous substances that are above the specified thresholds for a Controlled Activity and Restricted Discretionary Activity status, or are not otherwise provided for.

Overall, resource consent is required as a Discretionary Activity for the storage of hazardous substances exceeding the consent threshold quantities set in Table E31.4.3 of the AUP for the Future Urban Zone. A comment on the objectives and policies and the activity standards for hazardous facilities set out in Section E31.6 of the AUP is provided in Table Appendix A.1 and Table Appendix A.2.

Table 5.1: Review of aggregate hazard classes against consent triggers set in Table E31.4. 3

Hazard class	Table E31.4. 3 reference	Permitted quantity	Discretionary quantity	Proposed quantity	Status
Non-haz gases	(A54)	< 2,000 kg	> 10,000 kg	< 2,000 kg	Permitted
2.1	(A52)	< 1,000 m^3	> 2,000 m^3	14 m^3	Permitted
3.1A and 3.1B	(A57)	< 2,000 L	> 4,000 L	500 L	Permitted
3.1D	(A60)	< 20,000 L	> 40,000 L	190,000 L	Discretionary
5.1.2A	(A66)	< 400 m^3	> 1,000 m^3	16 m^3	Permitted
6.1C, 6.3-6.9	(A73)	< 6,000 L	> 12,000 L	203,900	Discretionary
8.1, 8.2A, 8.3	(A75)	< 2,000 L	> 4,000 L	<2,000 L	Permitted
8.2B, 8.2C	(A76)	< 10,000 L	> 20,000 L	< 1,000 L	Permitted
9.1B	(A79)	< 10,000 L	> 20,000 L	190,500 L	Discretionary

Under Activity Table 31.4.1(A7) of the AUP, hazardous facilities that store or use hazardous substances above the specified thresholds of Table E31.4.3 have discretionary activity status. The Restricted Discretionary thresholds for Class 3.1D flammable liquid (A60), Class 6.3 – 6.9 chronic human health hazards (A73) and Class 9.1B ecotoxic hazards (A79) are exceeded, all applicable to the diesel storage. All other relevant classifications remain under the permitted activity quantity thresholds for all other ancillary hazardous substances storage proposed.

Overall, the proposed storage and use of diesel is a discretionary activity.

The storage and use of these substances at the Site are therefore considered to have permitted activity status under Chapter E31.

5.2 Natural Hazards – Chapter E36

The bulk diesel tanks are proposed to be below ground level within a building with a fringe area subject to the 1% annual exceedance probability (AEP) flood plain and is subject to coastal inundation with 1 m sea level rise and a 1% AEP event, as detailed in the Coastal Hazard and Risk

Assessment (T+T 2026). Under Rule E36.4.1(A29) *Storage of hazardous substances in 1% AEP probability floodplain* is a Restricted Discretionary Activity. The matters of discretion are set in Section E36.8.1 of the AUP; those relevant to the storage of hazardous substances in the flood plain are presented with commentary in Table Appendix A.3.

Under Plan Change 120, storage of hazardous substances in a coastal hazard area is a Permitted activity under Rule E36.4.1 (A64) and the storage of hazardous substances in a flood hazard area is a Restricted Discretionary Activity under Rule E36.4.1 (A84). Permitted activity standards for (A64) and matters of restricted discretion for (A84) are included with commentary in Table Appendix A.4.

Freeboard is provided flooding (stormwater) for a 1-in-100 year event, and further mitigation is proposed to manage future flood increases (due to sea level rise) through an adaption response to ensure risks are low over the next 100 years for the building.

The design of B2 includes freeboard allowances to provide flood protection to the building and interiors. This assessment has also considered the risk of water ingress into the basement that may arise from the residual risk of flood or inundation levels exceeding the freeboard height. The risk of this is considered to be low.

5.3 Industrial and trade activities – Chapter E33

The rules applying to Industrial and Trade Activities (ITA) are determined based on Table E33.4.3 in Chapter E33, which includes a list of ITAs and classifies the risk ('high', 'medium' or 'low') of an ITA based on the activity type and area.

The ITA area is defined as the total of all areas used for outdoor storage, handling or processing of materials or products that may contribute to the quality or quantity of environmentally hazardous substance discharges, and the area at risk from failure of the largest un-bunded container. The calculation of ITA area excludes all indoor or covered areas that do not contribute discharge to land or water.

All storage and handling of environmentally hazardous substances are undertaken indoors at the proposed Data Centre. The air-cooled chiller systems on the roof use water as the coolant, there are no environmentally hazardous substances proposed outdoors at the roof level. The proposed activities associated with the Data Centre are not listed in Table E33.4.3, as such the activity is 'unlisted'.

Table 5.2: ITA Activity Status

Consent type	Rule	Status
Land use	**Table E33.4.1(A3)** Use of land for an existing or new industrial or trade activity not listed in Table E33.4.3.	**Permitted** – subject to compliance with the permitted activity standards under E33.6.1.1. An evaluation against the ITA permitted activity standards for the use of land is included in Table Appendix A.5.
Discharge of contaminants	**Not applicable** – There are no contaminants generated as part of the normal operation of the proposed data centre and therefore no associated discharge of contaminants. In the event of a leak from equipment, emergency response procedures will be implemented.	An evaluation against the ITA permitted activity standards in E33.6.1.2 for discharges is included for completeness in Table Appendix A.6.

6 Risk assessment

6.1 Introduction

The following sub-sections set out a risk assessment of the proposed storage and handling of hazardous substances at the data centre for the proposed storage volumes. The approach to hazard analysis and risk assessment is based on Ministry for the Environment's Guidance for Hazardous Facilities[4].

The risk assessment involves consideration of:

- Identification of potential hazards, failure modes and exposure pathways;
- The sensitivity of the surrounding environment;
- The separation distances from neighbouring activities and the number of people potentially at risk from the facility;
- Cumulative risks of hazardous facilities in the area; and
- Transport of hazardous substances on and off the Site to ensure safe access and appropriate routes for delivery vehicles on-site to minimise risk of spillage.

6.2 Hazard analysis

The hazards associated with hazardous substances are generally classified as follows:

- Fire/Explosion Effects: concerned with damage to property, the built environment and safety of people;
- Human Health Effects: concerned with the well-being, health and safety of people; and
- Environmental Effects: concerned with damage to ecosystems and natural resources.

These hazards are based on the intrinsic characteristics of the substance, for example the flashpoint of a flammable substance. The purpose of the hazard analysis is to undertake a preliminary scaling and ranking of hazards, and to identify risks that should be investigated in greater detail for risk to off-site receptors. Table 6.1 sets out the hazard analysis for the data centre, identifying and rating potential hazards. Substances that, in the absence of controls, could have off-site effects, are evaluated in the qualitative risk analysis in Section 6.3.

Diesel has chronic human health hazards. These chronic hazards require repeated direct exposure in order to have an effect and are therefore not expected to impact any people beyond the boundary. Diesel is also highly hazardous to the aquatic environment. Diesel has a low flammability rating and is considered combustible.

The hazard analysis also accounts for limited storage of cleaning or maintenance products, which are expected to have moderate human health hazards when ingested, inhaled or applied to the skin, and high ecotoxicity classifications. Small quantities of cutting gases (oxygen and acetylene), aerosols and flammable paint storage have high flammability hazards but small storage quantities.

[4] Ministry for the Environment. Assessment Guide for Hazardous Facilities. 2000.

Table 6.1: Hazard Analysis

Hazardous Substance and quantity stored	Identification of potential hazard properties (HFSP Hazard level[A])	Failure Modes	Exposure pathways/ Affected part of environment	Indicative hazard rating	Potential for off-site effects	
Diesel <190,000 L	Fire/ Explosion (low) Ecotoxicity (medium)	Fire at the storage tank, spill during tank refilling, spill during equipment refuelling, tank failure	People, property, ecosystems	Low fire hazard to people or property due to low flammability rating. Moderate hazard to ecosystems in the event of a spill or failure of secondary containment.	Yes	Effects to ecosystems from spills and effects of fire considered further below in the risk assessment.
Transformer oil (ester based) 13,000 L	Human health (low)	Spill to environment during delivery or movement, failure of containment	People	Low hazard to human health via aspiration of oil.	Yes	Transformers are within dedicated rooms within the building. No pathway to the offsite environment is identified.
Refrigerant gases < 2,000 kg	None	None	None	None	No	No identified hazards or pathways.
Flammable paints, solvents < 500 L	Fire/Explosion effects (high) Human health (low) Ecotoxicity (moderate)	Fire in the storage area, package leak, spill during delivery or movement	People, property, ecosystems	Low fire hazard due to low volume and storage in fire rated cabinets. Low hazard to human health (chronic direct contact hazards) and small package volumes. Health hazard limited to on-site staff. Low hazard to ecosystems in a spill due to secondary containment and emergency response procedures.	Yes	Effects due to a spill to be considered further in risk analysis.

Hazardous Substance and quantity stored	Identification of potential hazard properties (HFSP Hazard level[A])	Failure Modes	Exposure pathways/ Affected part of environment	Indicative hazard rating	Potential for off-site effects	
Packaged cleaning, water treatment or maintenance products <2,000 L	Human health (medium) Ecotoxicity (high)	Package leak Spill during delivery or movement	Ecosystems	Low hazard to human health (chronic direct contact hazards) and small package volumes. Health hazard limited to on-site staff. Low hazard to ecosystems in a spill due to secondary containment and emergency response procedures.	Yes	Effects due to a spill to be considered further in risk analysis.
Aerosols 50 L	Fire/ Explosion (high)	Fire in workshop	People, property	Low fire hazard to off-site people and property due to small storage quantities and large separation to off site people and property.	No	Not considered further.
Oxygen 16 m^3	Fire/ Explosion (high)	Fire in workshop	People, property	Low fire hazard to off-site people and property due to small storage quantities.	No	Not considered further.
Acetylene 14 m^3	Fire/ Explosion (high)	Fire in workshop	People, property	Low fire hazard to off-site people and property due to small storage quantities.	No	Not considered further.

Note: The hazard level is specified according to the hazard classification in Table 1 of the Land Use Planning Guide for Hazardous Facilities, MfE 2002.

6.3 Risk analysis

As outlined Table 6.1, the identified events associated with the proposed data centre that could result in off-site effects are a fire in the rooms housing the diesel storage tanks, structural failures of these tanks, spills during either use or refuelling or inundation of the basement tanks in a flood. Other identified scenarios include a spill of packaged hazardous substances (e.g. water treatment chemicals, paints) during delivery. A qualitative risk assessment for the identified hazards/failure modes associated each of these events is presented below.

The qualitative risk assessment has been carried out in accordance with the method described in the Assessment Guide for Hazardous Facilities (MfE, 2000), by applying a qualitative rating to the frequency (likelihood) of the failure occurring and the consequence (severity) of impacts if the event were to occur. The likelihood and consequence ratings take into account the controls (mitigation and management measures) that will be in place. The qualitative likelihood and effects ratings are described in Table 6.2 and Table 6.3, respectively.

The overall risk assessment, set out in Table 6.5, concludes that the residual risks, after controls have been implemented, are low and can be managed.

Table 6.2: Qualitative rating of likelihood

Frequency rating	Descriptor	Explanation	Industry-wide occurrence rate
A	Almost certain	Event or near miss that has occurred during plant lifetime.	Occurs frequently, multiple times a year
B	Likely	Could occur in plant lifetime. Root causes likely to have occurred on plant.	Has occurred on occasion, one in five-year occurrence
C	Moderate	Incidents known in industry. Requires at least two failures. Event not expected during lifetime of plant.	Might occur at some time, one in 10-year occurrence
D	Unlikely	Foreseeable event, but requires multiple failures. Very remote chance of occurring during lifetime of plant.	Not likely to occur, one in 30 years
E	Rare	Theoretically possible, but extremely remote chance of occurrence.	Very rare, may occur one in 100 years

Table 6.3: Semi quantitative rating of consequence

Effects rating	Descriptor	Human health/property	Spill to environment
1	Insignificant	No injuries	Negligible environmental damage
2	Minor	First aid treatment required, minor damage to property.	On-site release contained
3	Moderate	First aid treatment required, damage to off-site property.	Minor environmental damage
4	Major	Extensive injuries, moderate damage to off-site property.	Major environmental damage to immediate environment

Effects rating	Descriptor	Human health/property	Spill to environment
5	Catastrophic	Fatalities both on and off-site, major and exposure to toxic release by numerous people	Widespread environmental damage

The likelihood and consequence ratings are then combined to qualitatively assess the overall level of risk associated with each hazard. The risk assessment matrix is shown in Table 6.4.

Table 6.4: Risk matrix

Consequence / Likelihood	Severity				
	Insignificant	Minor	Moderate	Major	Catastrophic
	(1)	(2)	(3)	(4)	(5)
Almost certain (A)	Significant	Significant	High	High	High
Likely (B)	Moderate	Significant	Significant	High	High
Moderate (C)	Low	Moderate	Significant	High	High
Unlikely (D)	Low	Low	Moderate	Significant	High
Rare (E)	Low	Low	Moderate	Significant	Significant

Table 6.5: Qualitative risk assessment

Event	Controls (Mitigation/ Management Measures)	Residual risk of off-site effects with controls in place		
		Likelihood	Consequence	Risk
Fire at the diesel tank	Design, testing, certification and maintenance of the tanks, pumps and systems in accordance with the HSW-HS regulations for flammable liquid tanks. Any tank >1,000 L shall be four-hour fire-rated to safely deflagrate in the event of a fire. The diesel tank storage locations are secured from unauthorised access. The storage areas segregate diesel storage from other hazardous substances and activities to limit the potential for and impact of a fire. Separation distances provided to public and protected places and between tanks to minimise the impact of fire at the storage locations and potential for fire to spread between locations. Emergency Response Plan will in place, including fire-fighting provisions (extinguishers, sprinkler systems) and evacuation plans.	Unlikely – multiple failures of structural controls required to result in fire at the tank location.	Minor – evacuation of surrounding commercial and residential activities.	Low – further comment on specific risk associated with fire spread from the UPS batteries in Section 6.4.
Tank leak	Design, testing, certification and maintenance of the diesel storage in accordance with the HSW-HS regulations. Double-skinned secondary containment provided for all bulk diesel tanks and day tanks, with monitoring of the interstitial space. Emergency Response Plan will be in place, including provision of spill kits and staff trained in spill response.	Improbable – multiple failures of structural controls required to result in leak from double-skinned tank.	Minor – spill contained to tank secondary containment system.	Low

Event	Controls (Mitigation/ Management Measures)	Residual risk of off-site effects with controls in place		
		Likelihood	Consequence	Risk
Spill during refuelling	Dry break couplings used for tank refilling. Overfill prevention systems and interlocks to prevent spills. Refuelling is only conducted by sufficiently trained individuals. Diesel tanks must possess a liquid level indicator to reduce the likelihood of accidental overfilling. Emergency Response Plan will be in place, including provision of spill kit adjacent to the tanks and staff trained in spill response. Stormwater drains to be clearly identified and separated from the transfer point.	Unlikely – multiple failures of physical controls required to result a spill during tank refilling.	Minor – tank refilling spills are limited by overfill cut offs, dry-break couplings, ability to immediately stop pumping equipment and tank refilling being supervised by trained staff.	Low
Flooding in the area resulting in contamination of water	Only the bulk diesel tanks are located in an area below the flood hazard level. Building design includes freeboard to prevent floodwater ingress to the basement. Refuelling will not occur during flooding. The tanks are double-skinned, and all vents are above the safe fill level, the contents will be retained even if partially inundated.	Rare – Requires significant storm event and failure of flood protections and structural controls.	Minor – tank contents retained.	Low
Container leak or rupture during unloading to site – Moderate to highly ecotoxic container (e.g. paint)	Transport of hazardous substances via truck in accordance with the Land Transport Rule: Dangerous Goods 2005, meeting requirements for packaging, labelling, loading restrictions, segregation of incompatibles, unloading inspections and recurrent training. Swift movement of goods into dedicated bunded storage. Emergency Response Plan will be in place, including provision of spill kits and staff trained in spill response.	Unlikely – Package failures or damage during transit are not uncommon, but requires failure of procedures and secondary containment to result in release to the environment.	Minor – any release cleaned up and removed from on-site systems.	Low

Event	Controls (Mitigation/ Management Measures)	Residual risk of off-site effects with controls in place		
		Likelihood	Consequence	Risk
Container leak or rupture of packaged goods in storage (any liquid)	Storage locations for packages of hazardous liquids are to be provided with bunding to contain any leaked material. Emergency Response Plan will be in place, including provision of spill kits and staff trained in spill response.	Unlikely – Package failures or damage during transit are not uncommon, but requires failure of procedures and secondary containment to result in release to the environment.	Minor – any release cleaned up and removed from on-site systems.	Low

6.4 Fire risk – interaction with battery systems

Bulk diesel storage in the basement is proposed to be split over multiple bulk tanks. The current proposal anticipates four tanks, noting that the number and volume will be confirmed through detailed design. Diesel has a low flammability rating, does not produce a flammable vapour under ambient conditions and is considered combustible. The risk of fire at diesel storage areas is managed by selection of four-hour fire rated tanks which will enable a fire at the tank to safely withstand fire for four hours, while suppression systems and emergency responders return the area to a safe condition.

However, if exposed to high heat over sustained periods of time (more than four hours) within the enclosed pressure vessel, the diesel within the tanks could become explosive, representing a significant hazard to people and property.

The battery systems on Levels 1 and 2 present a specific fire ignition risk due to their potential for thermal runaway, in which an exothermic reaction within the battery cells causes a chain reaction through adjacent cells, eventually generating enough heat to ignite in a self-sustaining fire that creates oxygen, is resistant to extinguishants, and poses a risk to the diesel tanks.

Fire risk from the batteries may be minimised[5] by the following fire safety measures:

- Fire resistant separation and compartmentation of the battery energy systems. At the Halsey Street Development, the battery systems will be separated from the bulk fuel storage by two floors that can be designed as fire barriers. The battery systems themselves are proposed to be compartmentalised in fire rated enclosures to minimise potential for spread of fire throughout the floor.
- Spacing of battery modules to limit grouping to certain kilo-watt hours and providing separation to walls to prevent horizontal propagation of thermal runaway conditions.
- Sprinkler systems or other fire suppression systems can be designed to comply with standards developed for the control of battery fires, such as the National Fire Protection Association's (NFPA) Standard for the Installation of Stationary Energy Storage Systems.

Equipment selection will also incorporate measures to prevent and mitigate fire risk, in particular the BMS to monitor the electrical and thermal state within the battery and to provide protective actions for the battery system in the case of overcharge, overcurrent, overheating, overvoltage and other possible hazards. BMS can also control the disconnection of the module from the wider system in the event of abnormal conditions.

The expectation of this assessment is that detailed fire engineering will be undertaken to confirm that there is no increased risk of fire from the battery energy systems impacting on the diesel tanks.

Provided that the detailed system design provides for separation of the uninterrupted power supply battery systems from the bulk fuel storage systems along with fire suppression systems to control thermal runaway conditions, the risk to the diesel tanks in a fire will be no different to a regular building.

[5] From incident to insight: Fire risk in modern data centres. T. L. Kareck et al. Journal of Loss Prevention in the Process Industries 100 (2026).

7 Assessment of effects

7.1 Overview

In accordance with the Objectives and Policies of Chapter E31 of the AUP, the assessment of effects from hazardous substances has particular regard to the following aspects:

- The location, design, construction and management of hazardous facilities to avoid or adequately mitigate adverse effects, including risks, to people, property and the environment.
- Assessment of cumulative effects of hazardous facilities so they do not increase to unacceptable levels of risk to people, property and the environment.
- The transport of hazardous substances as part of a land use activity so adverse effects associated with the transport of hazardous substances on roading infrastructure and other land use activities along transport routes are minimised.
- Provision of adequate separation between hazardous facilities and activities sensitive to hazardous facilities to avoid or adequately mitigate risk to people and property and to avoid reverse sensitivity effects.

7.2 Effects on people and property

The neighbouring residential apartments and accommodation activities are highly sensitive to the effects of fire associated with hazardous substances.

Diesel has a low flammability rating, and the bulk tanks are separated from any sensitive activities on-site and from other hazardous substances storage, being located within the basement. Each of the proposed tanks will comply with the minimum required 4-hour fire rating to further minimise the likelihood of fire spreading within the building.

Risk of fire at the battery energy systems on Level 1 and 2 impacting the tanks within the basement is proposed to be managed by incorporating structural fire resistance elements, separation from combustible materials, provision of automated fire suppression and firefighting facilities and building design to facilitate fire brigade intervention.

The residual risk to off-site locations is low, to be managed through detailed fire engineering design. Other flammable hazardous substances are proposed to be stored in permitted activity quantities within workshop facilities within the building on the ground floor, and managed by segregated storage in dedicated AS 1940 cabinets, separation from ignition sources and provision fire fighting equipment, presents a low risk to off-site locations.

The effect on people or property from fire at the site have been assessed as less than minor, taking into consideration the proposed controls to manage the hazards and the isolation of the bulk fuel storage activity in the basement.

7.3 Effects on ecosystems

The Waitematā Harbour is sensitive to the effects of ecotoxic contamination.

The bulk diesel tanks are double-skinned to minimise the risk of a leak and are located indoors in a sealed room to minimise the risk of a leak entering surface water or groundwater if a leak were to occur when the system is unattended. This is further mitigated by the liquid level monitoring and venting controls in place on the tanks to prevent overfilling and over-pressurisation when transfer of diesel is required. The refuelling connections will use dry-break couplings to minimise residual contamination.

Environmentally hazardous liquids within the data centre equipment such as transformer oil or coolants are within closed loop systems inside the B2 building in dedicated rooms. This equipment will be monitored by data centre staff. Packaged substances like biocides for water treatment or paints for site maintenance will be stored in dedicated bunded storage areas.

In the event of a spill during refuelling of tanks or equipment or a spill of packages of hazardous liquids, the spill response procedures will be initiated to contain and clean up the spilled material.

Provided that the controls are effectively implemented, the effect on ecosystems is assessed as less than minor.

7.4 Effects from flooding

Areas adjacent to the Project site are identified as subject to the 1% annual exceedance probability flood plain on the Auckland flood plain maps (T+T 2026). Parts of the site are also subject to coastal inundation hazard due to sea level rise according to the AUP hazard overlays.

The only hazardous substances that are proposed to be stored below the ground level are the diesel tanks in the basement. Ground level is not considered at risk of flooding or inundation. The building design includes adequate freeboard to prevent flood ingress from the building entrances to the basement levels. In the event of a heavy rainfall event, these areas are not expected to be inundated. However, even if floodwaters did enter the basement areas, the diesel will be contained within the primary tanks and secondary containment systems while the floodwaters subside (or are pumped away).

Each tank must be designed to comply with the HSW-HS regulations requirements for stationary container systems (Part 17), which include requirements for separation distances, signage, material specifications, ancillary equipment, and protections from spills and fires. All of which is detailed in Section 4.2. The risk to ecosystems from storage of these tanks within the basement during high rainfall events or storm surges coinciding with sea level rise is assessed as low.

The effect on the environment from the storage and use of diesel at the data centre with respect to the risk during a flood is assessed as less than minor.

7.5 Effects from transport

Diesel will occasionally be brought to site by truck or tanker for the purpose of refuelling the bulk tanks. Other packaged substances will be brought to the site as required.

Any transport of hazardous substances must be undertaken in accordance with the Land Transport Rule: Dangerous Goods 2005.

Each fuel truck is required to be stocked with a spill kit and drivers trained in emergency response. Overall, the effect of transport of hazardous substances associated with the proposed diesel storage and use is less than minor.

7.6 Cumulative effects

As discussed in Section 6.4, there is a risk of cumulative effects in the event of a sustained fire at the battery systems associated with the UPS. The performance of thermal runaway detection and fire prevention measures (battery management systems, monitoring and maintenance), and fire protection measures (fire-resisting construction and fire suppression systems), are considered critical in containing the fire to the room or unit of origin and limiting fire spread to adjoining areas. Detailed design is proposed to include fire engineering to isolate the bulk fuel storage and the UPS and to minimise the scale and severity of potential fire events in the battery systems, and the risk of fire spread to the basement to a low level.

There are no similar bulk fuel storage activities in the surrounding areas of the data centre, though it is expected that the other neighbouring commercial buildings will have their own back-up power generation facilities. However, separation distances to the boundary are such that off-site activities are highly unlikely to have any impact on diesel storage and use at the data centre. Cumulative effects from the storage and use of hazardous substances with off-site activities are assessed as negligible.

8 Proposed conditions of consent

Hazardous Substances Management Plan

1 Within 20 working days from the completion of works, the Consent Holder must provide a final Hazardous Substance Management Plan (HSMP).

2 The objectives of the HSMP are to detail the controls in place at the Site to manage hazardous substances and minimise the risk of release of these substances into the surrounding environment.

3 The HSMP must, as a minimum, include the following information:

- Roles and responsibilities;
- Important contact details;
- A hazardous substance register including their storage locations, and associated safety data sheets;
- A risk register including identified risks and associated controls;
- Spill response plan (SRP);
- Emergency response management plan (ERMP);
- Site inspections, monitoring;
- Staff training; and
- Provisions of site audit and review of HSMP.

4 The Consent Holder must ensure that the site operation must adhere to the operational procedures, control measures and response procedures specified in the HSMP and the documents must be made available onsite at all times.

Post-construction

5 Prior to operation of the activity, the Consent Holder must produce a statement letter confirming the minimum 4-hour fire rating of each bulk diesel storage tank.

6 The Consent Holder must ensure that suitable and sufficient spill kits are maintained onsite at all times.

7 Any incidents resulting in a discharge of hazardous substances to the environment must be reported to the Council within 24 hours of an incident occurring and incident records must be made available to the Council upon request.

9 Conclusion

Resource consent is required for the following activities:

- The storage and use of hazardous substances (diesel storage for back up power generation) triggers a discretionary activity consent pursuant to E31.4.1 (A7) for exceeding the permitted and restricted discretionary threshold quantities set out in Table E31.4.3 of the AUP for the Business – City Centre Zone.
- The storage of diesel in the 1 per cent annual exceedance probability (AEP) flood plain triggers the requirements for a restricted discretionary consent under E36.4.1 (A29). Under Plan Change 120, the storage of hazardous substances in a coastal hazard area is a permitted activity under E36.4.1 (A64) and the storage of hazardous substances in a flood hazard area is a restricted discretionary activity under E36.4.1 (A84).
- The storage of other hazardous substances associated with building maintenance are not proposed to exceed the permitted activity threshold and therefore do not require a consent as set out in Table E31.4.3 of the AUP for the Business – City Centre Zone.

The key risks related to the proposed storage and use of hazardous substances associated with the data centre include:

- Fire risk from a fire in the diesel storage tanks.
- Risk of ecotoxic effects from a spill of diesel during tank filling
- Risk of ecotoxic effects from storage of diesel tanks or packaged maintenance products in an area that is identified on Auckland Council Catchment and Hydrology maps as subject to the 1% AEP flood plain.
- Risk of ecotoxic effects from a spill of hazardous liquids associated with site maintenance and water treatment systems

The overall residual risks from the proposed activities are considered low.

The two primary risks are a fire within the diesel storage areas and a spill event in which the ecotoxic material is discharged into the stormwater network (and ultimately the harbour).

The risk of fire at the diesel tanks is managed by division of the bulk storage over multiple tanks each with 4-hour fire resistance rating, provision of fire suppression systems and the segregation of these tanks from other activities by location within in the basement. Potential for cumulative effects with a fire at the battery systems on Levels 1 and 2 has been identified as a key risk, to be managed by fire engineering design and equipment selection to isolate the battery systems from the tanks and enable control of fire events. Provided that the controls are implemented effectively, the residual risk of fire associated with the tanks is low and the effect less than minor.

The proposed controls to manage spill risks include selection of self-bunding diesel storage tanks with leak detection sensors use of dry-break couplings and overfill sensors during supervised refuelling and implementation of hazardous substances management plan including measures for spill response. Similary, spill risk from storage of packaged liquids associated with water treatment, maintenance or cleaning will be managed by secondary containment at the storage locations and the procedures for spill response. Provided that the controls are implemented effectively, the residual risk of spill associated with the tanks is low and the effect less than minor.

The effect of flooding in the area has been considered and has likewise been determined to be low risk and less than minor in effect given the current freeboard provided at the building, and the proposal to include an adaptation response in future to maintain the floor heights above inundation levels.

Potential effects associated with transporting hazardous substances to the site will be minimised by compliance with the Land Transport Rule: Dangerous Goods 2005 and have been assessed as less than minor.

10 Applicability

This report has been prepared for the exclusive use of our client NZCRE 100 Halsey Limited, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

We understand and agree that our client will submit this report as part of an application under the Fast-track Approvals Act 2024 and that an Expert Panel as the consenting authority will use this report for the purpose of assessing that application. We understand and agree that this report will be used by the Expert Panel in undertaking its regulatory functions.

Compliance with the Environment Court Practice Note 2023

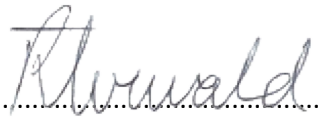
We confirm that, in our capacity as authors of this report, we have read and abided by the Environment Court of New Zealand's Code of Conduct for Expert Witnesses contained in the Practice Note 2023.

Rose Turnwald: I am a Specialist Environmental Engineer at Tonkin & Taylor Ltd (T+T). I specialise in hazardous substances management and have worked at T+T since 2018. Prior to joining T+T, I was a process engineer at a Major Hazard Facility. I have 9 years' experience in hazardous substances risk management. I hold the following qualifications – BE (Hons).

Rob Van de Munckhof: I am the Technical Director of Environmental Engineering at T+T and have worked as a Principal and Senior Environmental Engineer at T+T since 2005. I have undertaken hazardous substances risk assessments for a wide range of industries (including for mining, manufacturing and bulk fuel terminals), as well as providing technical support to Councils associated with District Plan rules for management of hazardous substances risks. I hold the following qualifications –BE (Hons).

Tonkin & Taylor Ltd
Environmental and Engineering Consultants

Report prepared by:



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Rose Turnwald
Environmental Engineer

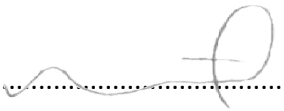
Authorised for Tonkin & Taylor Ltd by:



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Andrew Hope
Project Director

Technical review by:



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Rob Van de Munckhof
Technical Director – Environmental Engineering

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Appendix A Objectives, policies and standards

Chapter E31 of the Auckland Unitary Plan lays out a series of policies and objectives designed to reduce or eliminate the risks associated with the use, storage, and transport of hazardous goods. Chapter E36 specifies policies designed to protect against and mitigate the effects of natural hazards such as flooding and sea level rise. Chapter E33 sets the provisions to manage the risks of stormwater contamination associated with Industrial or Trade Activities

The policies relevant to the hazardous properties of the proposed activities have been addressed in Table Appendix A.1, and Table Appendix A.2**,** while the policies relevant to the interaction between hazardous substances and natural hazards are addressed in Table Appendix A.3 and Table Appendix A.4**,** and the industrial and trade activities activity standards in Table Appendix A.5and Table Appendix A.6

Table Appendix A.1: E31.2 Objectives and E31.3 Policies

Objective/policy	Comment
E31.2(1) Objective: The risks of hazardous facilities to people, property and the environment are minimised to acceptable levels while recognising the benefits of these facilities.	The development will follow all applicable standards when installing the proposed diesel storage tanks and will undertake all on-site activities in a manner that minimises the risks associated with the use of diesel, including use of 4-hour fire rated tank design, leak detection and double skinned containment. Storage of packages of hazardous substances must be undertaken in accordance with the HSW-HS regulations, including requirements for secondary containment, segregation of incompatible substances.
E31.3(1) Policy: Manage hazardous substances by: • locating, designing, constructing and managing hazardous facilities to avoid or adequately mitigate adverse effects, including risks, to people, property and the environment; • identifying, assessing and managing cumulative effects of hazardous facilities so they do not increase to unacceptable levels of risk to people, property and the environment; and • locating land use activities so that the adverse effects of the transport of hazardous substances on roading infrastructure and other land use activities are minimised.	The risk to people, property and ecosystems from the installation of the proposed activity has been assessed in Section 6 of this report and found to be low, and managed in accordance with the applicable regulations.

Objective/policy	Comment
E31.3(2) Policy: Require adequate separation distances between hazardous facilities and activities sensitive to hazardous facilities to avoid or adequately mitigate risk to people and property and to avoid reverse sensitivity effects.	Adequate separation distances between flammable substances and from these substances to vulnerable receptors have been adopted based on HSW-HS regulations 2017. Diesel tanks storing flammable liquids are located either at sub-floor levels or the level 0 floor within the fire pump room, or on Level 5 associated with the generators. Other substances associated with maintenance tasks or cleaning will be stored in small quantities in dedicated areas isolated from any sensitive activities. Incompatible substances will be segregated.

Table Appendix A.2: E31.6. Standards for hazardous facilities

Permitted activity standard	Comment
<u>E31.6.1 Hazardous facilities site design</u> (1) Any part of a hazardous facility involved in the manufacturing, mixing, packaging, storage, loading, transfer, usage or handling of hazardous substances must be designed, constructed and operated to ensure that: • (a) on-site facilities are set back from the more sensitive uses and watercourses to comply with the distances specified in the activity table above; and • (b) hazardous substances are stored to: – (i) ensure that in the event of an unintended spill or release substances are contained within the intended areas of the site; and – (ii) prevent the accumulation of any solid, liquid, gas or vapour outside of the site area.	The bulk tanks are appropriately located within the basement, well separated from sensitive uses on site to service the building utilities. All storage tanks are provided with double skinned containment and are kept indoors. All other storage of packaged substances on site will minimised and kept in closed containers in bunded storage areas where required.
<u>E31.6.2 Site drainage systems</u> (1) The site drainage systems (including for wash water) must be designed, constructed, and operated to prevent the entry or discharge of hazardous substances into: • (a) the stormwater or sewerage systems unless authorised by the relevant network utility operator; and • (b) air, land or water, including groundwater and potable water supplies, unless authorised by a resource consent or another rule in the Plan. *Note 11- Compliance can be achieved using precautionary methods, including clearly identified stormwater grates and access holes, roofing, sloped pavements, interceptor drains, containment and diversion valves, oil-water separators, sumps and similar systems.*	There will not be any washwater generated at the site as part of the proposed data centre. All bulk storage tanks are provided with double skinned bunding within the building. Drainage plans prepared as part of detailed design will illustrate stormwater grates at the development. Small quantities of cleaning, water treatment or maintenance products may be kept in closed containers within dedicated bunded storage areas internal to the building. Insulating oils within transformer equipment are within closed loop systems within the building. Any stormwater grates on-site will be clearly identified by markings.

Permitted activity standard	Comment
E31.6.3 Hazardous facilities spill containment system (1) Any part of the hazardous facility site where a hazardous substance spill may occur must be serviced by a suitable spill containment system that is: • (a) constructed from impervious material resistant to all hazardous substances on site; and • (b) for liquid hazardous substances: – (i) able to contain the maximum volume of the largest tank present plus an allowance for stormwater or fire water; – (ii) for drums or other smaller containers, able to contain hold of the maximum volume of substances stored, plus an allowance for stormwater or fire water; – (iii) able to prevent any spill or other unintentional release of hazardous substances, and any stormwater and/ or fire water that has become contaminated, from entering the stormwater drainage system, unless authorised by the relevant network authority; and – (iv) able to prevent any spill or other unintentional release of hazardous substances, and any stormwater and/ or fire water that has become contaminated, from discharging into air, land or water, including groundwater and potable water supplies, unless authorised by a resource consent or another rule in the Plan.	All bulk storage tanks are provided with double skinned containment indoors. Re-loading of diesel is expected to occur infrequently. The connection to the tanks will be either within the services lane or truck dock facility and supervised by delivery contractors trained in emergency spill response and equipped with spill kits. The refuelling vehicle will use dry break coupling connections and remote fuel level gauges and overfill protection valves for the receiving tanks. Further internal distribution of diesel between bulk storage tanks and day tanks will be conducted via a system fitted with fuel level sensor controls and interlocks to prevent overfilling. Secondary containment will be provided for dedicated hazardous liquid package storage associated with maintenance activities, such as storage of paints or water treatment chemicals.
E31.6.1 Hazardous facilities waste management (1) Any hazardous facility generating waste containing hazardous substances must be disposed of these wastes to lawfully operated facilities or be serviced by a Council approved waste disposal contractor.	There are no hazardous wastes associated with the back-up generators or anticipated as part of the maintenance of the systems. In the event of a spill incident at the data centre, the spilled material will be removed from the building or refuelling connection bay for disposal at an authorised facility. This will be a requirement of the spill response plan.
E31.6.4 Temporary storage of fertiliser classed as sub-class 9.3B and 9.3C for rural production activities	This standard does not apply to the storage of hazardous substances associated with the Site.

Table Appendix A.3: E36.8.1. Matters of discretion for hazardous substances in a floodplain (strikethrough and underline showing modification proposed under Plan Change 120)

Matter of discretion	Comment
The Council will restrict its discretion to the following matters when assessing a restricted discretionary resource consent application:	
(6) for the storage of hazardous substances in the ~~1 per cent annual exceedance probability (AEP) floodplain~~ flood hazard areas: (a) the location, design and management of facilities where hazardous substances are stored, used or disposed;	Some of the diesel tanks are proposed to be stored within sub-floor areas adjacent to a flood plain. All storage of diesel is in tanks that are double skinned to prevent leaks. All other hazardous substances will be stored in small quantities in closed containers within dedicated bunded storage areas. Building design includes freeboard to prevent floodwater ingress.
(b) the potential risk to public health and the environment;	The risk of effects on human or ecosystem health arising from storage of hazardous substances at the site has been assessed as low in Section 6.3 of this report.
(c) and the potential contamination of water	

Table Appendix A.4: Storage of hazardous substances in coastal hazard areas (Plan Change 120)

Permitted activity standard	Comment
E36.6.1.1C Permitted activity standard for storage of hazardous substances in coastal hazard areas	
(1) Goods and materials are secured and contained so as not to cause an environmental, public health or safety hazard during or after an event.	The diesel tanks will be secured within the basement.

Table Appendix A.5: Assessment against permitted activity standard E33.6.1.1

Permitted activity standards E33.6.1.1. Use of land for an industrial or trade activity	Comment
(1) Wastewater and washwater produced by industrial or trade activities must be disposed of on-site via the sanitary sewer, subject to approval from Watercare, or it must be collected, either for recycling or disposal, to a system or facility with all the appropriate authorisations to accept wastewater of that type. For the purposes of this rule, wastewater or washwater also includes: (a) boiler blow down and condensate; (b) all waste liquids generated or collected as part of an industrial or trade activity; (c) cooling tower water excluding vapour; and (d) condensate from air compressors.	There are no wastewater or washwater streams associated with the charger building facilities. Any waste collected in the event of a spill will be disposed of to an authorised waste facility. **Complies.**
(2) A spill response plan is prepared where any environmentally hazardous substance is handled, used or stored on land at a quantity greater than used for domestic purposes. These plans must meet the requirements of Table E33.9.1 as relevant and be supplied to the Council on request.	A spill response plan is proposed to be included in the HSMP. **Complies.**

Permitted activity standards E33.6.1.1. Use of land for an industrial or trade activity	Comment
3) For environmentally hazardous substances in quantities covered by Part 4 of the Hazardous Substances (Emergency Management) Regulations 2001, a spill response plan prepared in accordance with those regulations will be considered to comply with Standard E33.6.1.1(2) provided the emergency spill response plan also explicitly addresses matters (vi) to (x) in Table E33.9.1.	N/A - Standard E33.6.1.1(2) will be met.
(4) For environmentally hazardous substances not covered by Part 4 of the Hazardous Substances (Emergency Management) Regulations 2001, a spill response plan prepared in accordance with Council's factsheet 'Being Prepared for a Spill' will be considered to comply with Standard E33.6.1.1(2).	N/A - Standard E33.6.1.1(2) will be met
(5) When the quantity of environmentally hazardous substances stored above the ground exceeds that used for domestic purposes, it must be stored: (a) in a container and in a manner that prevents the entry of rainwater into the container; and (b) within a secondary containment device or within a containment system that is constructed of impervious materials that are resistant to chemical attack from the substances contained therein.	All environmentally hazardous substances will be stored appropriately as follows: • Packaged substances will be stored in dedicated storage areas, such as a flammable liquids cabinet in the workshop. • Coolant will housed within closed systems within the covered chiller units • Transformer oil will be used within closed systems within the transformer, which are situated within the building in dedicated rooms retain any leaks. All containment systems must be constructed of materials impervious to the substance contained within. **Complies.**
(6) For environmentally hazardous substances in quantities covered by Part 4 of the Hazardous Substances (Emergency Management) Regulations 2001, storage requirements in accordance with those regulations will be considered to comply with Standard E33.6.1.1(5).	N/A - Standard E33.6.1.1(5) will be met
(7) For environmentally hazardous substances not covered by Part 4 of the Hazardous Substances (Emergency Management) Regulations 2001, storage requirements in accordance with council's factsheet 'Above Ground Storage' noting the following bund sizing criteria for secondary stage storage, will be considered to comply with Standard E33.6.1.1(5) where: (a) for tanks the bund has a storage capacity of at least 110 per cent of the capacity of the largest tank taking into account the volume displaced by any equipment and/or materials stored within the bund; and (b) for drums the bund has an effective storage height of at least 100 mm, allowing for any sloping ground, and the bund is set back from the drums by	N/A - Standard E33.6.1.1(5) will be met

Permitted activity standards E33.6.1.1. Use of land for an industrial or trade activity	Comment
a distance equal to half the height of the stacked or stored drums.	
(8) All secondary containment devices must be designed, constructed and managed so that uncontaminated rainwater and stormwater runoff is prevented from flowing into the contained area.	All storage activities are undertaken indoors within B2. **Complies.**
(9) Weekly inspections must be undertaken and recorded to check that environmentally hazardous substances are stored and/or contained appropriately except as follows: (a) National Grid - monthly inspections; (b) electricity substations – annual inspections; and (c) unmanned depots or facilities - monthly inspections.	Inspections will be undertaken in accordance with procedures set in the HSMP. Inspections will be documented for storage of environmentally hazardous substances in the charger building. The data centre equipment (e.g. transformers, chillers) will be equipped with monitoring systems to alert staff of any potential leaks. **Complies.**
(10) A regular reconciliation process must be undertaken for any environmentally hazardous substance stored in an underground storage tank that will identify any leakage or unaccounted losses of material from the tank.	N/A – no underground tanks.
(11) Any waste compactors and bins must be located and operated in such a manner that prevents leachate or waste leaking from them.	Waste receptacles shall be located indoors within B2. **Complies.**
(12) All on-site vehicle re-fuelling areas must be segregated and housed under cover, and/or surrounded by a drain that drains to an appropriately designed and sized stormwater treatment and spill containment device fitted with a shut-off valve.	There are no vehicle refuelling areas proposed. **Complies.**

Table Appendix A.6: Assessment against permitted activity standard E33.6.1.2

Permitted activity standards E33.6.1.2. Discharge from an industrial or trade activity area	Comment
(1) The discharges of contaminants from an industrial or trade activity area must result in less than minor adverse environmental effects on the receiving environment without the need for stormwater treatment (with the exception of on-site vehicle refuelling areas requiring stormwater treatment and spill contaminant devices under the permitted activity Standard E33.6.1.1(12).	There are no ITA areas associated with the proposed data centre and no discharges of contaminants proposed. **Complies.**

Appendix B Site plans

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BUILDING 2

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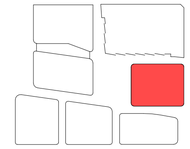
SUBSTANTIVE
22/10/2026



1 / 3-200 B2 - BASEMENT
SCALE 1 : 100

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Key Plan



NOTES
1. DRAWINGS, SPECIFICATIONS AND SCHEDULES TO BE READ TOGETHER AS A COMPREHENSIVE SET.
2. FOR ADDITIONAL NOTES AND GRAPHIC CONVENTIONS REFER TO:
   - **SHEET 0-002** - GENERAL LEGEND
   - **SHEET 0-003** - PROJECT NOTES

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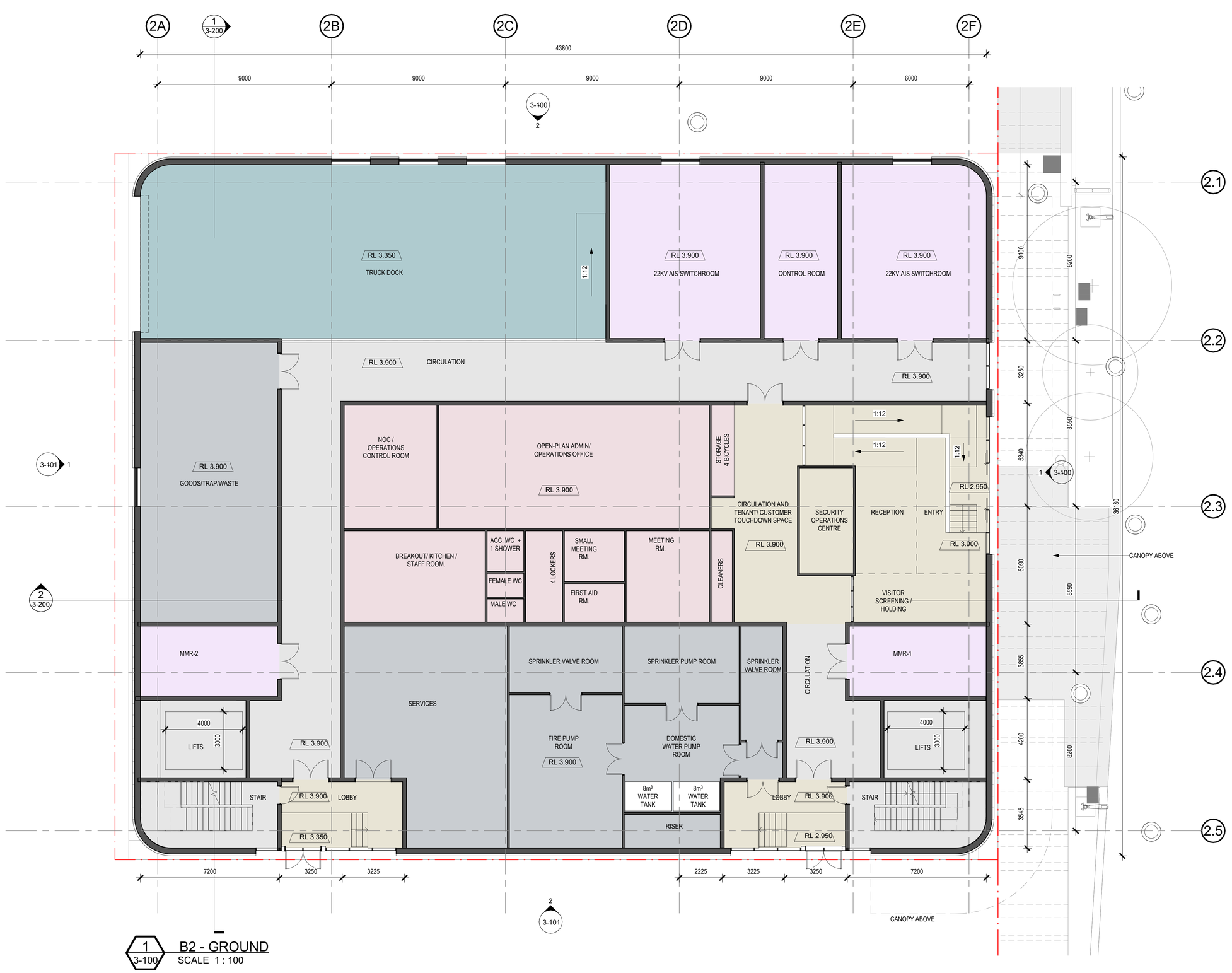
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BUILDING 2 - BASEMENT FLOOR PLAN
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SHEET NUMBER: **2153 - 2 - 2-108** REV: **A**

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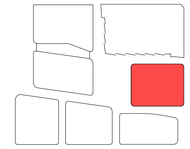
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1 3-100 B2 - GROUND
SCALE 1 : 100

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ROOM LEGEND

- DATA CENTRE
- LOBBY
- OFFICE
- TOILETS
- TRUCK DOCK
- CIRCULATION
- SERVICES / REFUSE
- RAISED FLOORS

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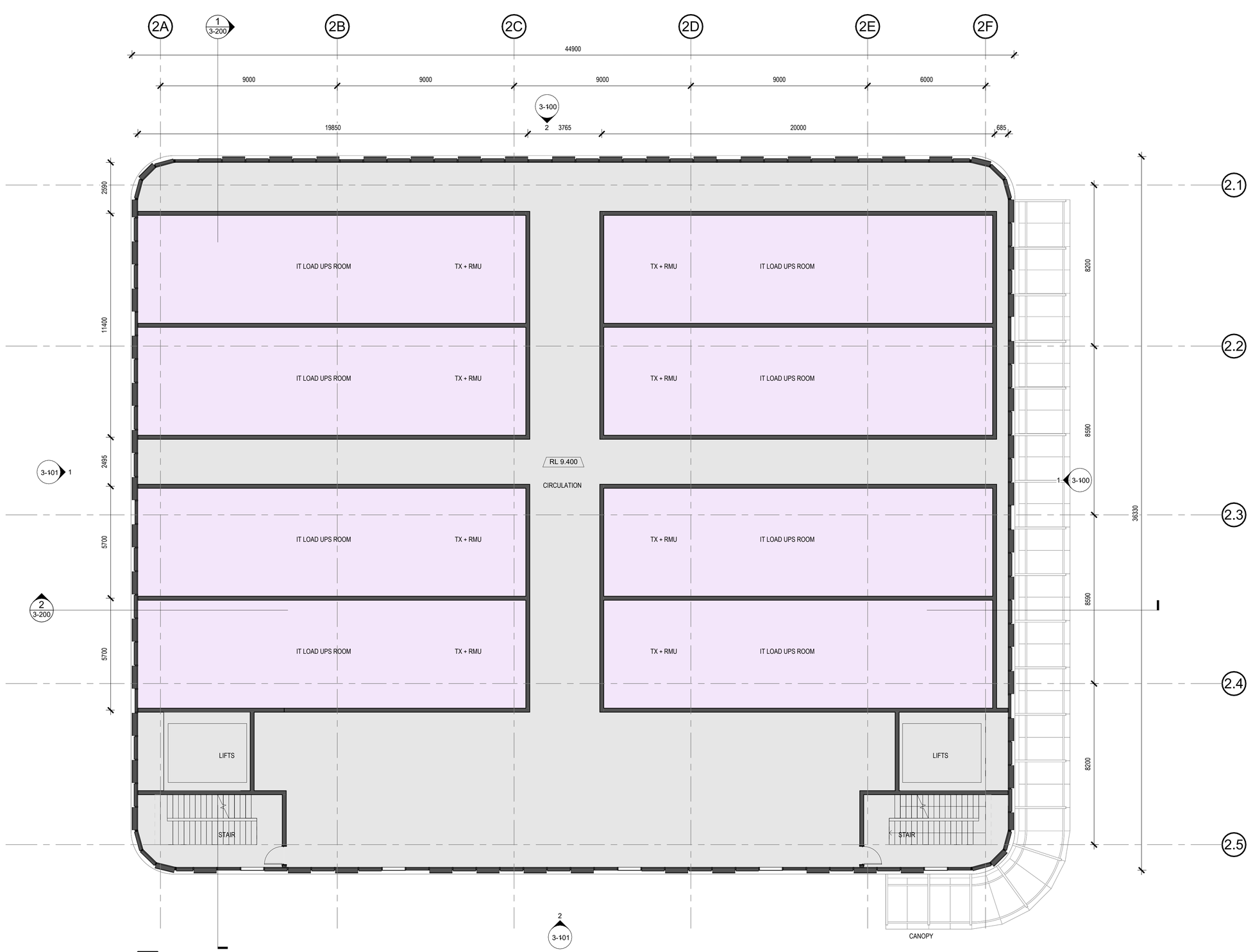
BUILDING 2 - GROUND FLOOR PLAN

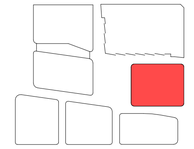
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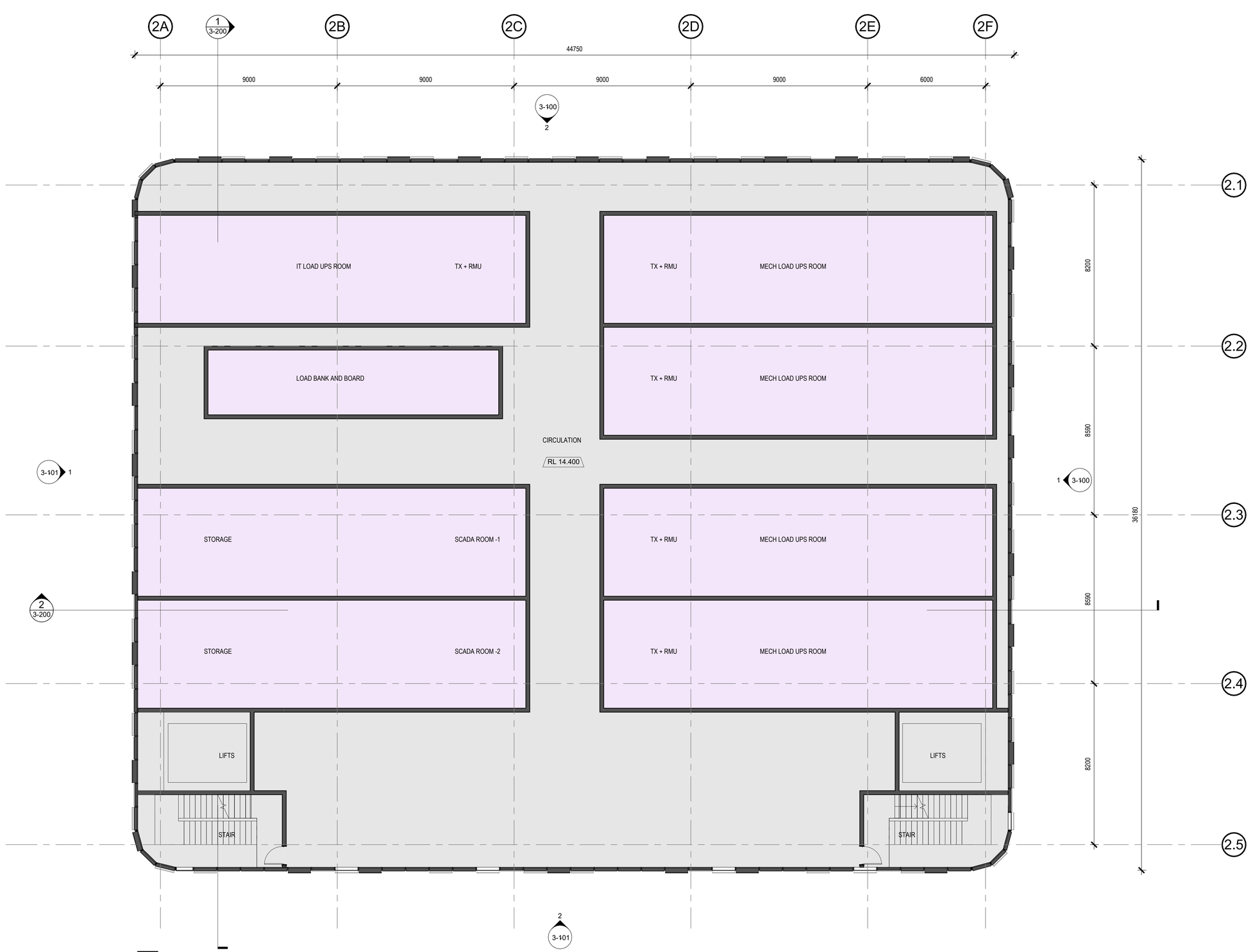
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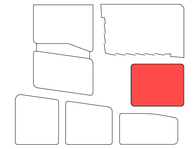
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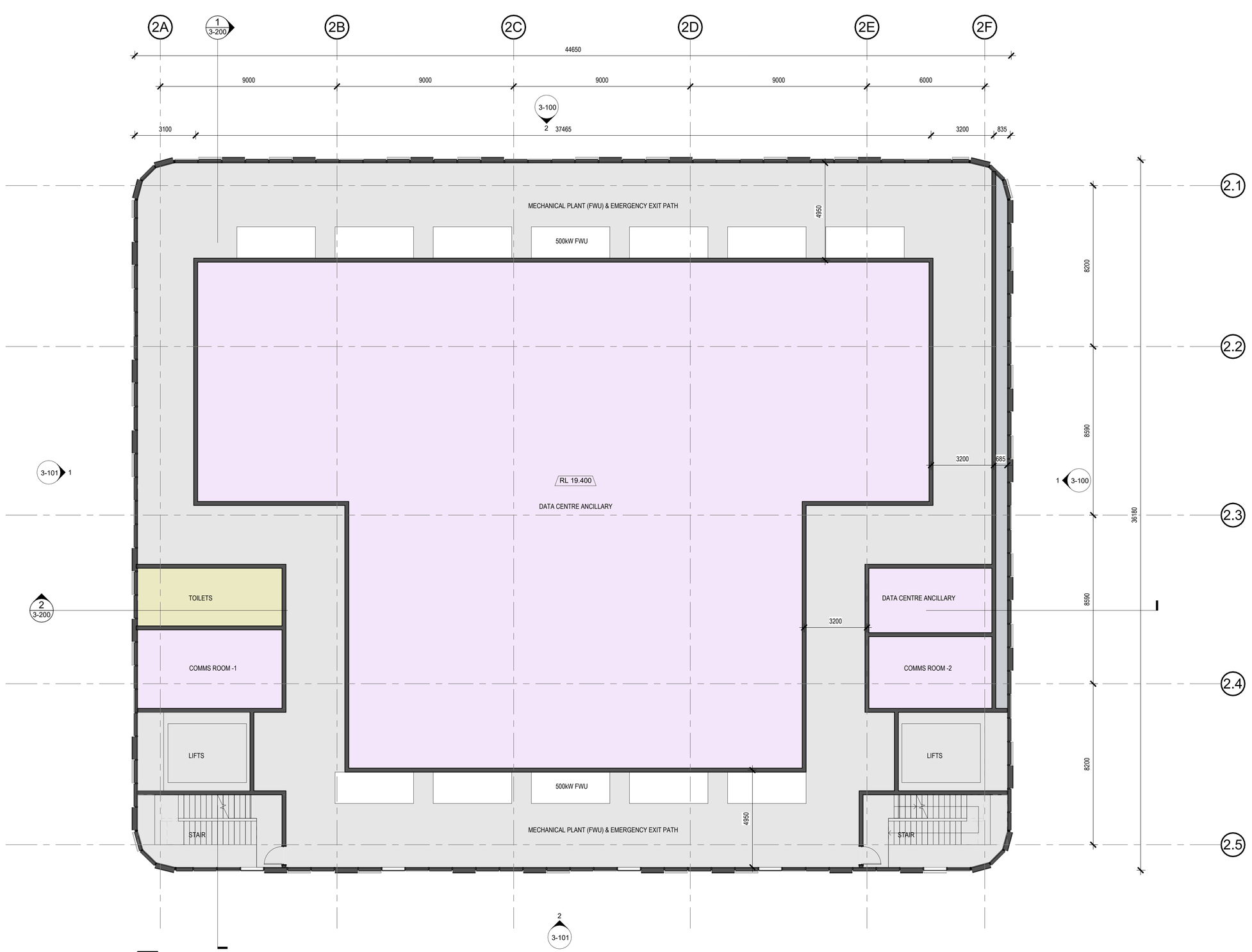
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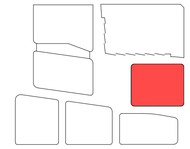
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1 / 3-100 B2 - L03
SCALE 1 : 100

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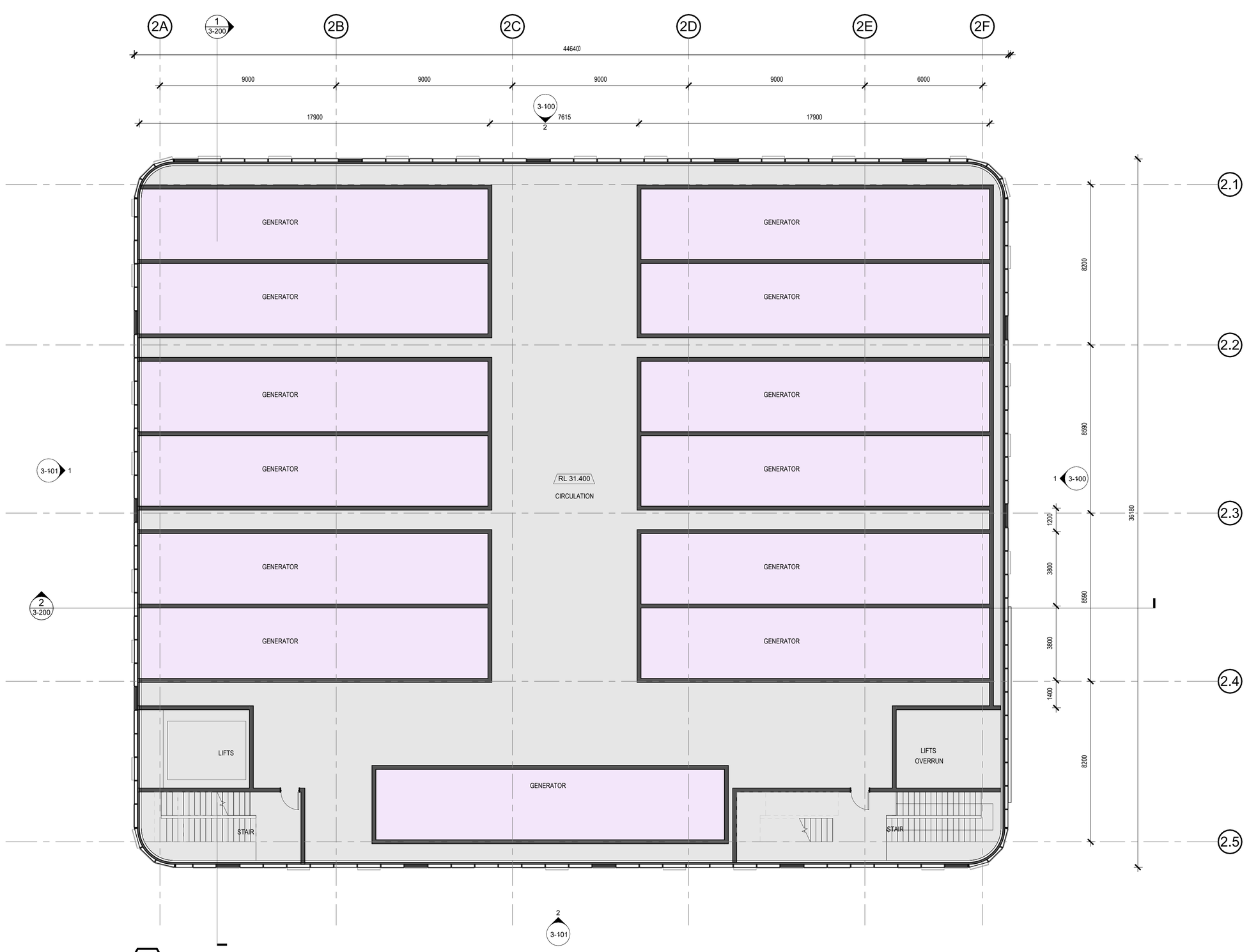
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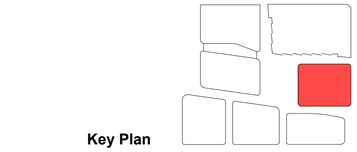
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Key Plan

NOTES
1. DRAWINGS, SPECIFICATIONS AND SCHEDULES TO BE READ TOGETHER AS A COMPREHENSIVE SET.
2. FOR ADDITIONAL NOTES AND GRAPHIC CONVENTIONS REFER TO:
   - **SHEET 0-002** - GENERAL LEGEND
   - **SHEET 0-003** - PROJECT NOTES

A	Substantive Application	22.10.2026	**EL/GG**	**MD**

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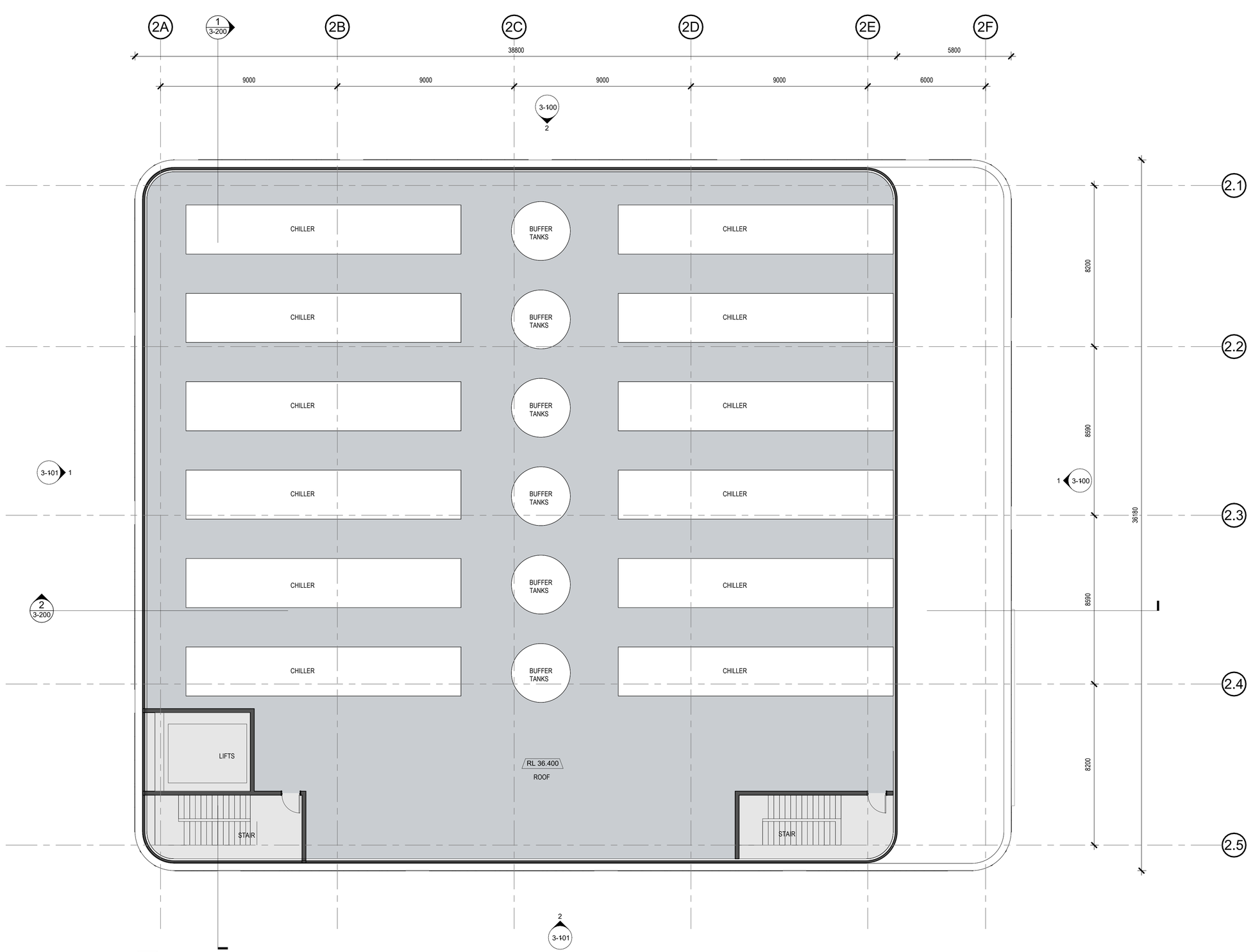
BUILDING 2 - L05 FLOOR PLAN

100 HALSEY ST

SHEET NUMBER: **2153 - 2 - 2-115**

REV: **A**

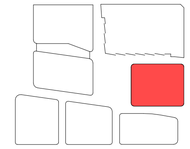
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1 3-100 B2 - L06
SCALE 1 : 100

0 5 m 10 m

Key Plan



NOTES
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ROOM LEGEND

- DATA CENTRE
- LOBBY
- OFFICE
- TOILETS
- TRUCK DOCK
- CIRCULATION
- SERVICES / REFUSE
- RAISED FLOORS

A	Substantive Application	22.10.2026	**EL/GG MD**

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BUILDING 2 - L06 ROOF PLAN
100 HALSEY ST

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