



**Wynyard Quarter Precinct -
Hazardous Facilities Risk**

188 Beaumont Street

Prepared for
Westhaven Residential Limited Partnership

Prepared by
Tonkin & Taylor Ltd

Date
February 2026

Job Number
1098609.2000 v3



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Document control

| Title: Wynyard Quarter Precinct - Hazardous Facilities Risk – 188 Beaumont Street | | | | | |
|---|---------|---------------------|--------------|-------------------|----------------|
| Date | Version | Description | Prepared by: | Reviewed by: | Authorised by: |
| 09 Feb 2026 | 3.0 | Final for lodgement | R Turnwald | R Van de Munckhof | A Hope |
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1 Introduction

This report has been prepared for Westhaven Residential Limited Partnership (WRLP) to evaluate the risks from hazardous industry in the Wynyard Precinct to the development containing 'risk sensitive activities' in the form of dwellings within the residential-led mixed use development proposed at 188 Beaumont Street, Auckland Central (the Project or 'site').

My name is Rose Turnwald. I confirm that, in my capacity as author of this report, I have read and abided by the Environment Court of New Zealand's Code of Conduct for Expert Witnesses contained in the Practice Note 2023. 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 of experience in hazardous substances risk management. I hold the following qualifications – BE (Hons).

This report:

- Describes the Project and its proximity to existing hazardous industries in the Wynyard Precinct, being the Sanford fish processing facility that uses anhydrous ammonia as a refrigerant.
- Identifies and assesses requirements within Chapter I214 of the Auckland Unitary Plan Operative in Part (AUP) Wynyard Precinct provisions for "risk sensitive activities" such as residential developments.
- Assesses whether the proposed residential and mixed-use development is exposed to unacceptable levels of health or safety risk, based on published Quantitative Risk Assessment document for the Wynyard Precinct.
- Appends a draft emergency and evacuation plan to satisfy the AUP special information requirements.

2 Proposed development and surrounding environment

WRLP is proposing to build a residential-led mixed-use development comprised of a podium containing parking and ground floor retail, with three residential apartment block towers.

The site is located south of Silo Park, on the corner of Beaumont Street and Jellicoe Street. There is only one hazardous facility remaining in the Wynyard Precinct, the Sanford fish processing facility. The closest boundary is approximately 120 m from the Sanford fish processing facility on Madden Street. This is a hazardous facility due to its use of anhydrous ammonia as a refrigerant gas. The nature of the hazard is described in Section 4.1 of this report.

Bulk liquid tank farms were previously located to the northeast on Wynyard Point, all of which were decommissioned ahead of the 36th America's Cup event in 2021 and therefore there are no remaining hazardous facilities within sub-precinct F. Redevelopment of this area into a major urban park is underway, led by the Auckland Urban Development Office, on behalf of Auckland Council.

The site location is shown on **Figure 2.1**.



Figure 2.1: Location plan.

3 Wynyard Precinct Provisions

Chapter I214 of the Auckland Unitary Plan Operative in Part (AUP) sets the rules for activities within the Wynyard Precinct. Activities marked # in Activity Table I214.4.1 are risk sensitive activities and are subject to additional assessment. Dwellings or visitor accommodation are marked # in the activity table and are therefore classified as 'risk sensitive activities' in this Project.

The site covers portions of sub-precinct Cand sub-precinct E, and Risk Areas 1 and 3 as shown in **Figure 3.1**.

Special information requirement I214.9 (7) (a) applies to applications involving risk sensitive activities in the D, E, F, G or areas 1-6 shown on Precinct plan 10, which requires:

(7) risk sensitive activities marked # in the activity table located in sub-precinct D, E, F, G or areas 1-6 shown on Precinct plan 10 (excluding events):

(a) an emergency and evacuation plan prepared by an independent authority or competent safety professional, which clearly indicates communication roles and responsibilities, location of egress points and assembly areas.

The assessment criteria relevant to management of risks from hazardous industry to new risk sensitive activities are specified in I214.8.2.(6), reproduced for comment in Section 6 below. These criteria were included due to the presence of hazardous industries within the Wynyard Precinct, all of these, except Sanford's fish processing facility, have been decommissioned, as discussed in the following section.

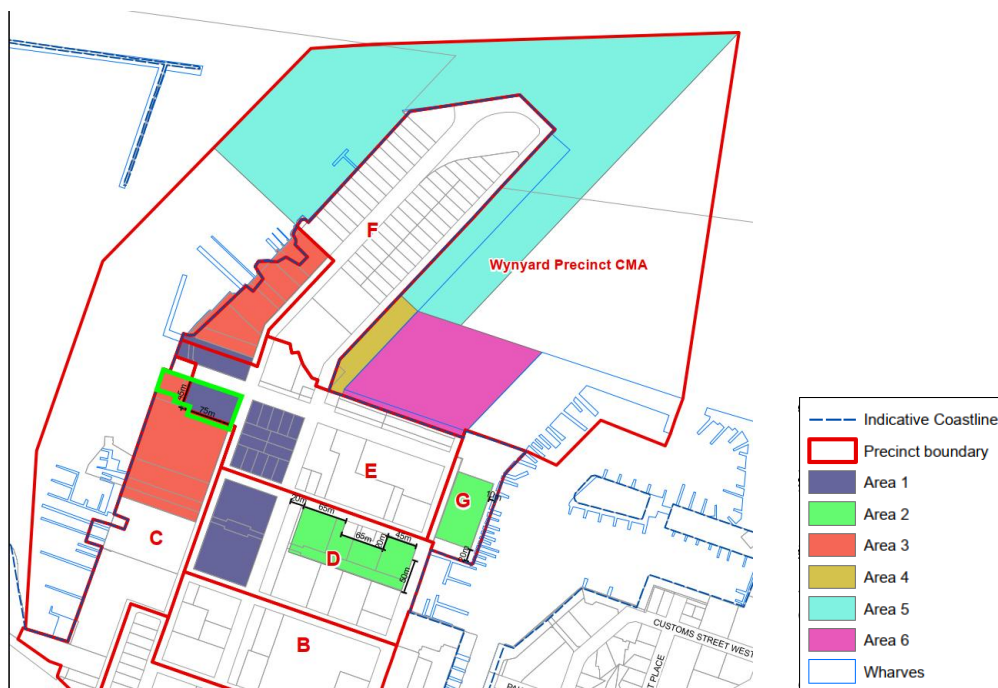


Figure 3.1: I214.10.10 Wynyard Precinct plan 10 – Risk Areas (site shown in green outline).

In the AUP plan development document *Proposed Auckland Unitary Plan City Centre - Auckland Council combined marked up version*, 22 May 2015, Section 3.14 notes that 'Area B' (relabelled 'Area 2' within the same document, as shown in **Figure 3.1**) is the key area considered at risk from the Sanford facility:

Area B identifies land where specific consideration is required when establishing dwellings and visitor accommodation activities due to human injury risk associated with accidental ammonia vapour release. Specific assessment criteria apply to this area to ensure potential health effects associated with ammonia release are avoided. As part of the consideration of an application to establish either accommodation or non-permanent accommodation within Area B, the owner and operator of the adjacent fishing plant is deemed to be an affected person under section 95B of the Resource Management Act 1991.

Area B corresponds to small areas within sub-precincts D and G, and therefore does not apply to the Project (see **Figure 3.1**).

4 Risk review

4.1 Nature of hazards

4.1.1 Decommissioned facilities

The Wynyard Wharf was previously home to tank farms for bulk hazardous liquid storage, principally for the petro-chemical industry. These liquids had flammable and toxic hazardous properties, but these are no longer present in the area, as shown on the figures below.

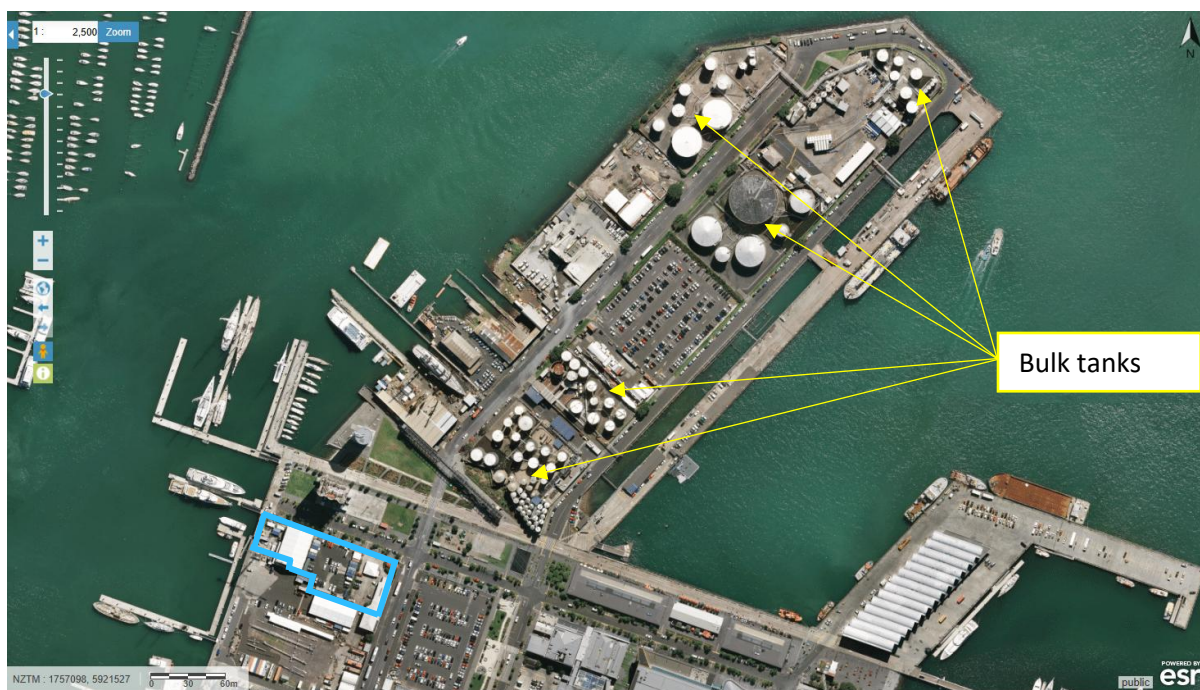


Figure 4.1: Auckland Council Geomaps – 2017 aerial imagery.



Figure 4.2: Auckland Council Geomaps – 2025 aerial imagery.

4.1.2 Sanford fish processing facility

The only remaining hazardous industry site in the Wynyard Precinct is the fish processing facilities operated by Sanford located at 22-32 Jellicoe Street, which uses anhydrous ammonia as a refrigerant in a closed loop system. In typical refrigeration systems, anhydrous ammonia is liquefied under pressure and contained within a closed system. Upon release, the compressed liquefied ammonia will readily form a vapour cloud.

Ammonia has the following hazards:

- Ammonia gas forms an explosive mixture when it is mixed with air in the range 15% to 28% by volume (flammable gas Class 2.1.1B). By comparison with hydrocarbon refrigerants, ammonia burns much more slowly and requires a strong ignition source to initiate combustion. The fire risk is significantly less than the toxicity risk, and therefore the extent of the risk is not determined by fire hazards.
- Ammonia gas is toxic via inhalation (Class 6.1C), and corrosive to skin (Class 8.2B) and eye tissue (Class 8.3A) and therefore it poses a risk to workers and, potentially, people offsite in the event of release. Ammonia has a pungent odour at low concentrations and therefore leaks are readily detectable at concentrations below the level that health effects are experienced.

An accidental ammonia gas release therefore presents a hazard to the general public in the event of an accidental release.

4.2 Methodology

The risk review is undertaken with reference to the quantitative risk assessments prepared for the Wynyard Precinct, and the acceptable risk levels defined in the *Hazardous Industry Planning Advisory Paper No 4 Risk Criteria for Land Use Safety Planning* (New South Wales' Department of Planning, 2011) (HIPAP4) guidance.

In general, risk acceptability criteria are lowest (most restrictive) for high sensitivity activities like hospitals, aged care facilities and schools, and higher (more permissive) for lower sensitivity activities such as retail or commercial activities. The risk criteria applicable to dwellings (i.e. residential developments as applicable to the Project) are on the highly-sensitive end of the scale but are slightly more permissive than for the most sensitive category (hospitals, aged care facilities and schools).

The specific acceptable individual risk criteria relevant to the Project, as defined in the HIPAP4, are:

- Fatality risk level of one in a million per year (1×10^{-6} per year) for residential developments. The guidance notes that this criterion is conservative as it assumes that residents will be at their place of residence and exposed to the risk 24 hours a day and continuously day after day for the whole year.
- Fatality risk level of five in a million per year (5×10^{-6} per year) for commercial developments (offices, retail centres).
- Toxic concentrations that would be seriously injurious to sensitive members of the community following a relatively short exposure should not exceed a frequency of 10 in a million per year (10×10^{-6} per year) in residential areas.
- Toxic concentrations that would cause irritation to eyes or throat, coughing or other acute physiological responses in sensitive members of the community should not exceed a frequency of 50 in a million per year (50×10^{-6} per year).

These criteria identify areas in the vicinity of existing industry that should not be developed for residential use without further mitigation. The areas around the Sandford site that are subject to these unacceptable risk levels are identified in Section 4.3 below.

4.3 Quantitative risk analysis

4.3.1 Introduction

The *Quantitative Risk Assessment – Wynyard Quarter* (July 2010) report was prepared by Sherpa Consulting for Sea+City Projects Ltd. An addendum was prepared in August 2011 to update the risk profile following relocation of some of the bulk liquid storage facilities. These assessments were used in development of the AUP rules for Wynyard Precinct.

The Quantitative Risk Assessment (QRA) evaluated the risk from hazardous materials handled at the bulk liquids sites and the Sanford fish processing facility, which were identified to have potential land use safety planning implications. At the time that this QRA was prepared, the bulk liquid terminals were still in operation.

The QRA presents the risk contours for the injury and fatality risks associated with the Sanford site. These include the criteria for acceptable risk that apply to residential developments such as the Project.

4.3.2 Individual injury risk

The QRA presents the individual injury risk contours prepared for toxic hazards associated with Sanford's facility, reproduced in **Figure 4.3**.

The site is located well outside of the acceptable risk contours for residential activities of 10 in a million (10×10^{-6}) per year, indicating that the irritation and injury risk to occupants of the Project site is very low.

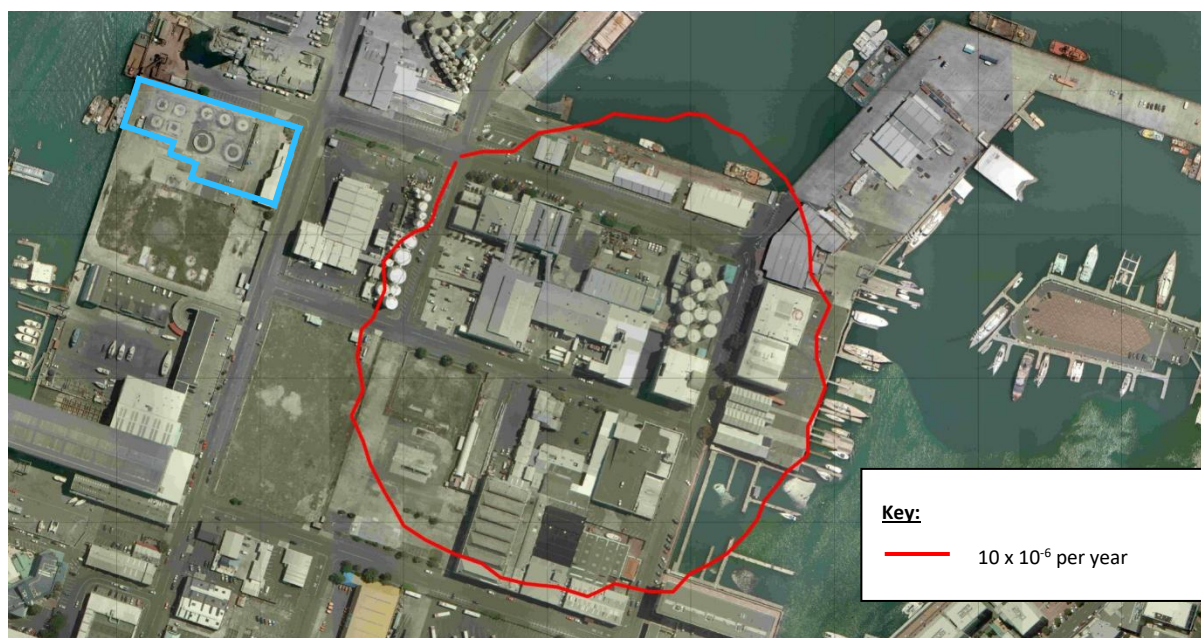


Figure 4.3: Cumulative toxic injury risk contours. Figure reproduced from QRA 2011 Addendum report, doc ref 20359-QRA-009. Location of the site is indicated in light blue.

4.3.3 Individual fatality risk

The QRA provided **Figure 4.4** which shows the individual fatality risk contour of the 1×10^{-6} per year criterion in green, which is applicable to residential developments such as the Project.

The site is substantially outside of the acceptable individual fatality contour, indicating that the fatality risk to occupants of the development is very low.



Figure 4.4: Individual fatality risk contour for the Sanford Fish Processing Plant (Figure reproduced from QRA 2011 Addendum report, doc ref 20359-QRA-009). Location of the site is indicated in light blue.

4.4 Conclusion

The risk levels modelled for the Project location are very low and well below the relevant acceptable risk criteria.

As such, the residential activities proposed at the site are not subject to any unacceptable levels of risk from ammonia use at the Sanford fish processing facility, therefore no mitigation is recommended or required.

5 Emergency planning

The QRA risk contours show that the risks associated with existing hazardous industry (Sanford fish processing plant) are very low at the site. As such, we do not consider any building occupancy limits, building design features, alternative layouts, specialist ammonia monitoring or alarms are required at the site.

The site would be most likely to require evacuation if the wind is blowing from the direction of Sanford (southeast) following an accidental release of ammonia. We note that southeasterly wind conditions are relatively uncommon in Auckland, which has a dominant south-westerly wind pattern, with a secondary wind dominance from the northeast¹.

In an event that required community evacuation, fire and emergency services would notify and coordinate evacuation in the wider area. The low level of risk at the Project location does not require special emergency response planning or coordination. Special Information Requirement I214.9 (7)(a)

¹ NIWA. The Climate and Weather of Auckland. 2013.

requires an emergency response and evacuation plan for sensitive activities in the Wynyard Precinct, which was included due to the presence of hazardous facilities that have since been decommissioned. A draft ammonia emergency response and evacuation plan is attached as **Appendix A** for completeness, to address the AUP requirements as written.

6 Assessment criteria

Commentary against the assessment criteria set out in I214.8.2.(6) is provided in **Table 6.1** below.

Table 6.1: Assessment criteria of I214.8.2.(6)

| Reference | Criterion | Comment |
|-----------|---|--|
| (a) | Whether any unacceptable levels of risk can be avoided or mitigated based on the following: | |
| (a) i | The location of the development, including service areas, parking and outdoor areas, with respect to industrial hazard sources. | Based on the quantitative risk information presented in section 4 above, there are no unacceptable levels of risk applying to the residential aspects of the project and therefore no avoidance or mitigation is required. |
| (a) ii | The design occupancy of the development, including anticipated design occupation numbers, the predominant and most vulnerable age demographic, hours of operation, estimated mean and maximum occupancy times for individual site dwellers in hours/days and any other pertinent occupancy information. | |
| (a) iii | A description of alternative layout plans considered in order to mitigate risk arising from offsite hazard sources. | |
| (a) iv | Methods for advising occupiers of the development of potential safety risks including methods of risk mitigation and control. | |
| (a) v | Building design methods for avoiding or mitigating occupant risk resulting from exposure to toxic vapour, thermal radiation and explosion debris from offsite hazard sources. | |
| (a) vi | Details of any proposed development staging and any voluntary site occupancy controls to be implemented during the transition period leading up to hazardous industry relocation. | |

7 Applicability


This report has been prepared for the exclusive use of our client Westhaven Residential Limited Partnership, 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.

This letter report has been prepared for WRLP under the terms our proposal of 1 July 2025 (T+T reference 1098609.0000) and in accordance with the variation dated 15 November 2025.

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.

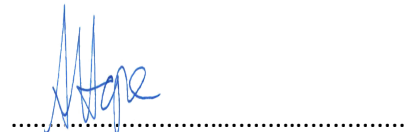
Tonkin & Taylor Ltd

Report prepared by:



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Authorised for Tonkin & Taylor Ltd by:



Andrew Hope
Project Director

Technical review by:



Rob Van de Munckhof
Environmental Engineer

9-Feb-26

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**Appendix A Draft ammonia emergency response
and evacuation plan**



**Draft Ammonia Emergency
Response and Evacuation Plan**

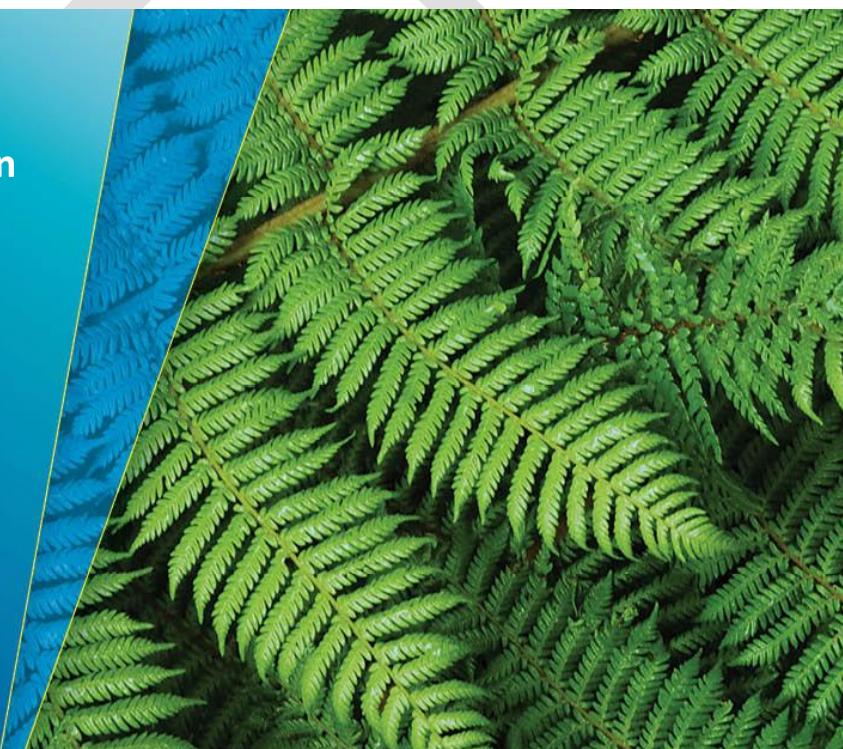
188 Beaumont Street

Prepared for
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Prepared by
Tonkin & Taylor Ltd

Date
February 2026

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Document control

| Title: Draft Ammonia Emergency Response and Evacuation Plan – 188 Beaumont Street | | | | | |
|---|---------|---------------------|--------------|-------------------|----------------|
| Date | Version | Description | Prepared by: | Reviewed by: | Authorised by: |
| 09 Feb 2026 | 2.0 | Draft for lodgement | R Turnwald | R Van de Munckhof | A Hope |
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1 Introduction

This Draft Ammonia Emergency Response and Evacuation Plan has been prepared in relation to a substantive application submitted by Westhaven Residential Limited Partnership for a referred project under the Fast-track Approvals Act 2024 (FTAA) in respect of the 188 Beaumont Street project (the 'Project'). The Project is an urban development project in Auckland's city centre involving a residential-led mixed use building comprising residential apartments, ground floor retail and ancillary car parking. The location for the Project is 188 Beaumont Street, Auckland Central.

This Draft Ammonia Emergency Response and Evacuation Plan has been prepared for Westhaven Residential Limited Partnership to outline the response for occupants of the Project to a potential ammonia leak at the Sanford fish processing facility.

My name is Rose Turnwald. I confirm that, in my capacity as author of this draft plan, I have read and abided by the Environment Court of New Zealand's Code of Conduct for Expert Witnesses contained in the Practice Note 2023. 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 of experience in hazardous substances risk management. I hold the following qualifications – BE (Hons).

This Draft Ammonia Emergency Response and Evacuation Plan may be updated to address other general emergency response procedures (e.g. fire on site, injury) or incorporated into the general site emergency management plan once the site is commissioned.

2 Purpose of ammonia emergency response and evacuation plan

Wynyard Quarter contains a mixed-use precinct for residential, retail, commercial and marine industries.

The Sanford fish processing facility at 22-32 Jellicoe Street is a hazardous facility that uses anhydrous ammonia in its refrigeration systems. In the event of a leak, toxic vapours may be dispersed throughout the precinct, depending on the volume of release and the wind direction and weather conditions (see Section 5.2).

Ammonia vapour irritates the eyes, skin, and respiratory tract. Inhalation of high concentrations can cause lung injury or death.

The Project is well separated from the Sanford Facility (see **Figure 2.1**), and quantitative risk assessments for an ammonia release at the facility have shown that the risk to occupants is very low. However, it is possible that emergency services could require the occupants of the development to evacuate as a precaution in the event of a large ammonia release.

This plan sets out the key point of contact, the communication roles and responsibilities, location of egress points and assembly areas.



Figure 2.1: Location plan.

3 Key Contacts

Roles responsible for management of the Beaumont facilities and their contact details are included in **Table 3.1** below.

Table 3.1: Key site contacts

| Role | Name | Organisation | Phone | Email |
|---------------------------------|------|--------------|--------------------|-------|
| Property owner/operator | | | Office: Mobile: | |
| Facilities and building manager | | | Office: Mobile: | |
| Body corporate | | | Office: Mobile: | |
| After hours contact | | | Office: Mobile: | |

External emergency contact details are provided in **Table 3.2** below.

Table 3.2: External emergency response contacts

| Service | Role and Responsibilities | Contact Details |
|-------------------------------|---|--|
| Auckland Emergency Management | Coordinates and plans activities related to hazard and emergency management | 09 301 0101 aeminfo@aucklandcouncil.govt.nz |
| Police/Ambulance/Fire | Emergency response and evacuation coordination | 111 |

4 Detection and notification

In the event of an ammonia release at Sanford, emergency services including Fire and Emergency New Zealand (FENZ) or Auckland Emergency Management will be notified by Sanford and will be responsible for communicating the scale of the event and coordinating evacuation, if required. The Project will not necessarily be required to evacuate, particularly if the ammonia release is small or controlled, and it is considered safer to stay within the building while the vapour disperses.

It is likely that occupants would be instructed to 'shelter in place'.

Triggers for Action:

- Notification from emergency services (FENZ).
- Activation of ammonia alarms or detection systems in nearby facilities or buildings.
- Reports of strong ammonia smell, irritation of eyes/throat, or visible vapor clouds nearby the development

Immediate Actions:

- Building management to confirm with FENZ or Auckland Emergency Management whether to evacuate or shelter in place.
- If evacuation is required, activate the building alarm for each area of the development to initiate evacuation of occupants (see Section 7 for further steps).

5 Egress routes

5.1 Building egress

The building evacuation scheme will be developed as part of detailed design by the project fire engineering lead. It must be prepared in accordance with the requirements set in the Fire and Emergency New Zealand (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018.

At this stage in the design, the three towers and the carpark form four separate evacuation zones (as shown on **Figure 5.1**), that are fire-separated and have their own evacuation strategies and sequences.

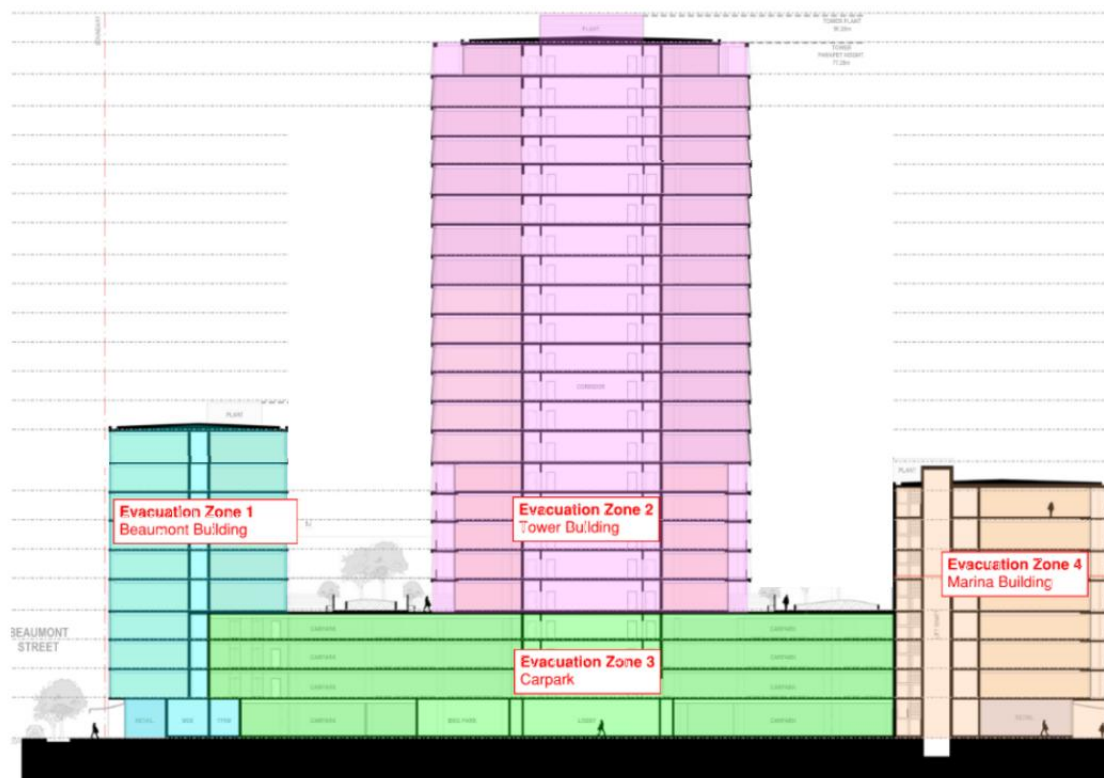


Figure 5.1: Proposed evacuation zones (source: Fire Engineering Brief, Jensen Hughes).

The FENZ Attendance Point is proposed to be located in the Fire Control Centre on the ground floor and accessed from Jellicoe Street, north of the buildings.

Draft building egress routes are attached as **Appendix A**. The fire alarm panels for each building are shown.

Egress routes from the building will direct occupants to Jellicoe or Beaumont Street.

5.2 Precinct evacuation

Emergency services will advise of the appropriate route to leave the area, if required.

The Project is downwind of Sanford under southeasterly winds, which are uncommon in the Auckland region. The evacuation routes south of the Project (i.e. existing the Wynyard Precinct) are generally downwind under northeasterly wind conditions.

As a preliminary evacuation guide, recommended evacuation routes are shown in **Figure 5.2**.

These will be updated once advised by Fire and Emergency New Zealand or Auckland Emergency Management.

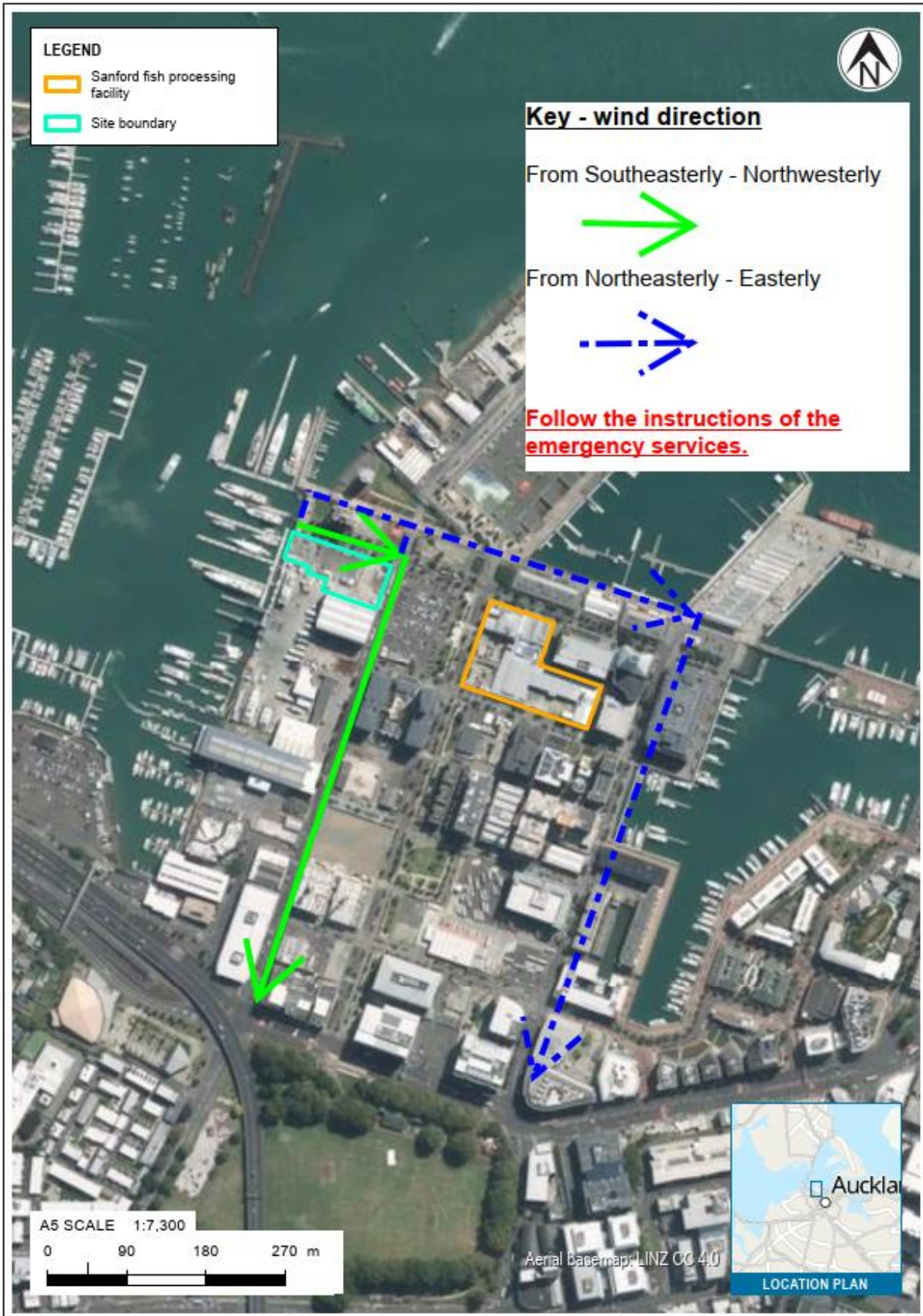


Figure 5.2: Recommended evacuation routes from the precinct.

6 Assembly areas

6.1 FENZ attendance points

Vehicular access for FENZ and the Fire Control Centre (including building-wide emergency communication systems, alarm panels and warden intercom points) are shown on **Figure 6.1**.

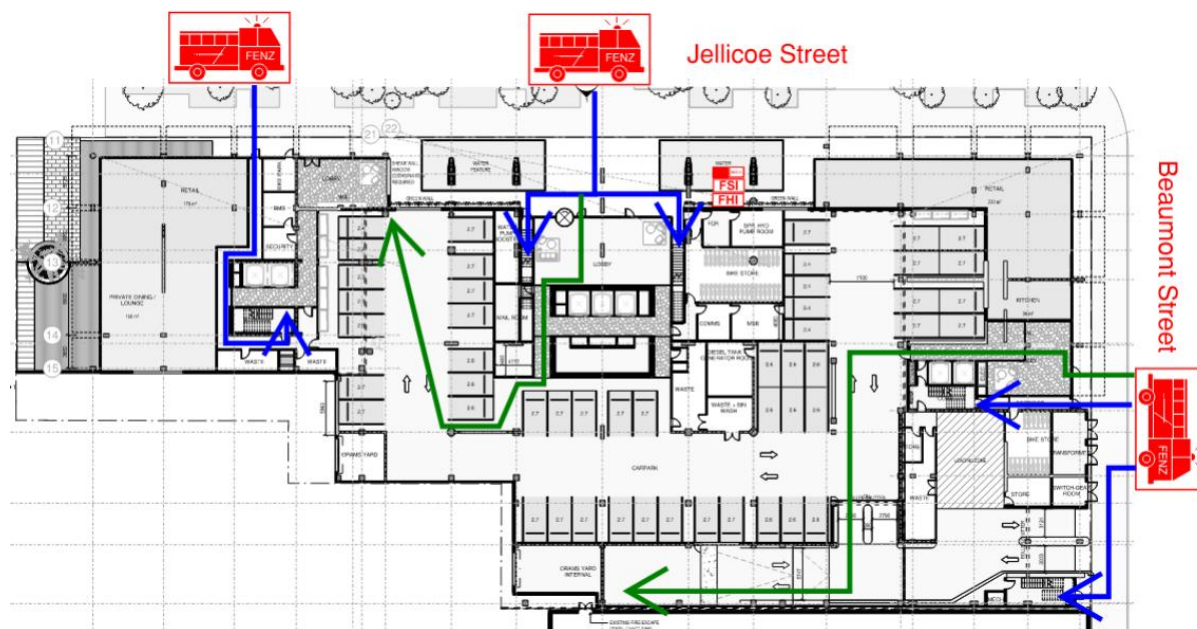


Figure 6.1: Attendance points and Fire Control Centre for management of building evacuation (source: Fire Engineering Brief, Jensen Hughes).

6.2 Civil defence centres

The nearest civil defence centres are:

- Ellen Melville Centre, 2 Freyberg Place, Auckland Central (1.3 km southeast).
- Freemans Bay Community Hall at 52 Hepburn Street, Freemans Bay (1.3 km southwest).

7 Ammonia release response procedures

7.1 Immediate response

The procedures for residents and businesses at the Project are set out in **Table 7.1** below.

Table 7.1: Procedures

| Instruction from Emergency Service | Procedure |
|------------------------------------|--|
| Shelter in place | <p>If authorities instruct residents <u>not to evacuate</u>, shelter in place actions are recommended:</p> <ul style="list-style-type: none"> • Close all windows, doors, and ventilation openings. • Turn off heating, ventilation, and air conditioning systems. • Move to internal rooms. • Use damp cloths to seal gaps around doors and windows, if possible. |

| Instruction from Emergency Service | Procedure |
|------------------------------------|--|
| | <ul style="list-style-type: none"> • Stay tuned to official alerts via radio, Auckland Emergency Management online updates, or mobile notifications. |
| Evacuate | <p>If directed by emergency services or building management to evacuate:</p> <ul style="list-style-type: none"> • Follow the direction of the emergency services (FENZ, AEM) when navigating out of Wynyard Precinct. • Confirm locations of any community assembly areas in coordination with emergency services. • As above, civil defence centres may be established in Freemans Bay or in the city centre at Ellen Melville Centre. • Do not return until Auckland Emergency Management advises it is safe to do so. |

7.2 Building re-entry

Re-entry may only occur once confirmed by emergency services that the ammonia hazard has been cleared from the Wynyard Precinct.

Building management must liaise with Fire and Emergency New Zealand, Auckland Emergency Management or other emergency services for clearance to re-enter the area (see Section 3 for contact details).

Building ventilation may be required to purge any trapped vapour prior to re-entry.

7.3 Drills

Emergency scenario drills are an important measure to test the effectiveness of the planned responses, to ensure staff are aware of requirements and to identify areas for improvement in the execution of response procedures. Drills must be coordinated by the building owner or body corporate as identified in **Table 3.1**.

A schedule of drill scenarios is provided in **Table 7.2**.

Table 7.2: Drill scenarios

| Scenario | Frequency |
|------------------------------------|---|
| Fire (general building evacuation) | 6-monthly evacuation test required by <i>Fire and Emergency New Zealand (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018</i> . |

8 Review

This plan is a living document and should be reviewed and updated as necessary when changes occur on site or in the Precinct that may affect evacuation routes, or otherwise every two years.

9 Applicability

This report has been prepared for the exclusive use of our client Westhaven Residential Limited Partnership, 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.

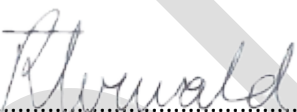
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Tonkin & Taylor Ltd
Environmental and Engineering Consultants

Report prepared by:

Authorised for Tonkin & Taylor Ltd by:



Rose Turnwald
Environmental Engineer



Andrew Hope
Project Director

Technical review by Rob Van de Munckhof, Principal Environmental Engineer

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Appendix A Building egress routes

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Firefighting lift to generally comply with EN81-72 (back up power, additional controls, etc). Lift shaft to be protected against water ingress.

Firefighting lift to be protected against smoke ingress - smoke curtain on Ground Floor.
If the lifts form part of the same lift bank, all three lifts will require the same extent of protection.

Calculated occupant load = ~174 people

Two means of escape required from F&B, separated by minimum 8m.
Egress doors are required to be automatic sliding doors or swing doors due to serving > 20 people.

Provide separate egress door from F&B along northern elevation (without clashing with the ramp), or additional steps down from deck as shown

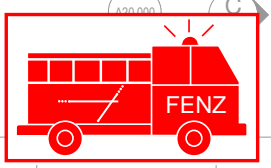
Allow for swing door (opening in both directions) due to potential for > 50 people in external area.

Legal instrument of 1m width (measured from external face of the building) is required to allow for the omission of fire ratings to the southern face of the Marina building.

Note: This will require a waiver to the Building Code requirements. Lawyers/surveyor to advise on the implementation of the legal instrument.

Legal instrument required to maintain egress from existing boatshed

Jellicoe Street



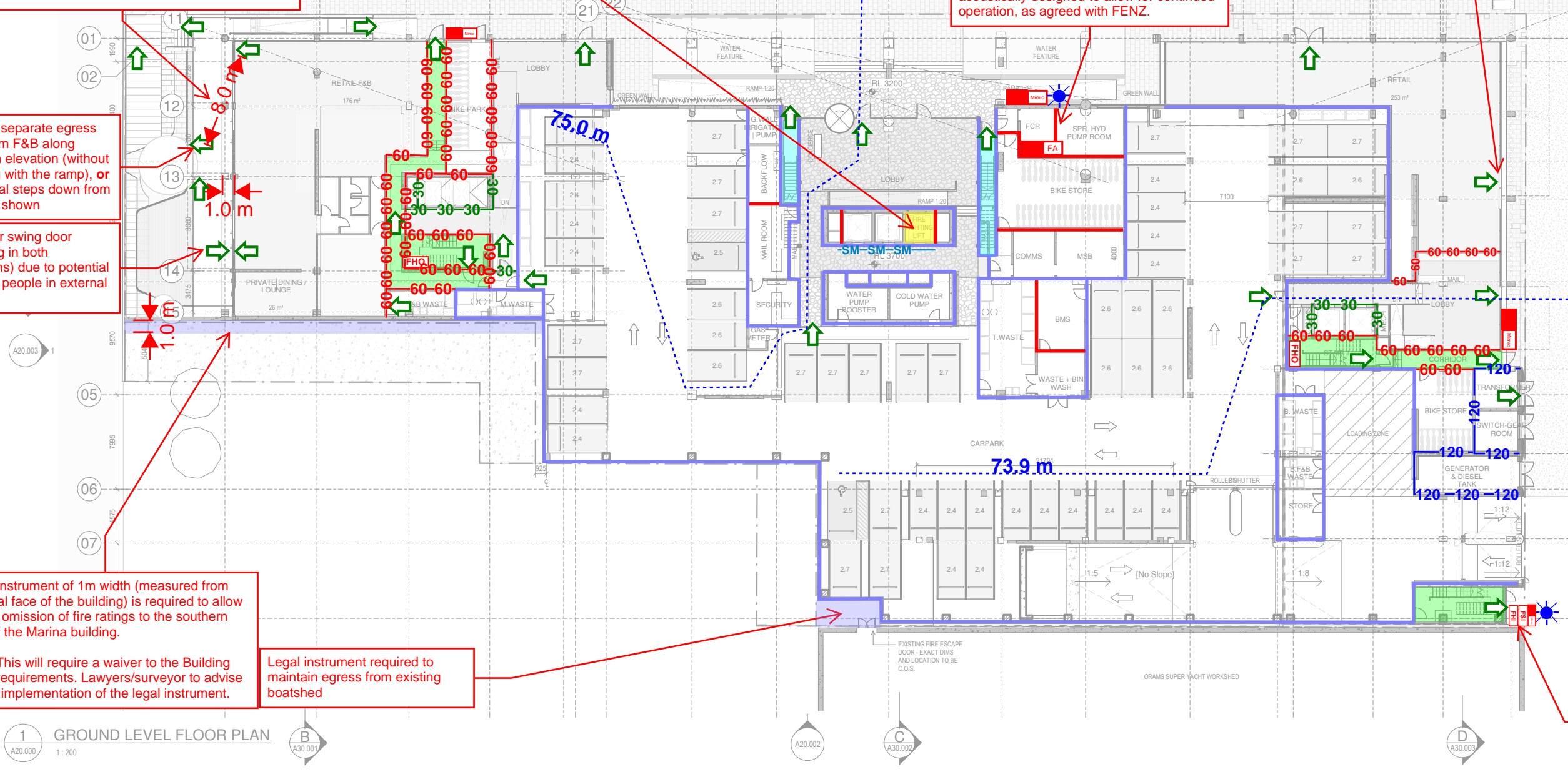
Greenwall:
+All supports and fixings are metallic and non-combustible;
+The system is provided with an automatic irrigation system designed to keep the vegetation moist without reliance on manual maintenance.
+The green wall is to be fixed onto a non-combustible substrate
+ Maintenance procedures and robustness of the irrigation system is to be documented as part of the consent documentation as requested by Auckland Council.

Wall between FCR and pump rooms to be acoustically designed to allow for continued operation, as agreed with FENZ.

FIREFIGHTING FEATURES TO TOWER
Firefighting Lift to EN81-72
Protected Lobby
Pressurised Stairs

Note: Egress doors serving > 20 people to be swing doors or automatic sliding doors.

| LEGEND | |
|---------------------------------------|--|
| FENZ Attendance Point | |
| Hose Run/Hydrant Arc | |
| Fire Alarm Panel + EWIS | |
| Mimic Panel | |
| Fire Sprinkler Inlet | |
| Fire Hydrant Inlet | |
| Fire Hydrant Outlet | |
| (30)/30/- FRR | |
| (60)/60/- FRR | |
| FRR (burnout) - likely 60 minutes | |
| FRR (burnout) - likely 90-120 minutes | |
| Smoke Rating (smoke curtain) | |
| Egress | |
| Exitway (Safe Path) | |
| Blue Strobe Light | |



Beaumont Street

Proposed location of inlets to be confirmed with FENZ following initial FEB comments.
Allow for physical barrier to separate egress from inlets (e.g., bollard).

1 GROUND LEVEL FLOOR PLAN
A20.000 1:200

PROJECT NORTH TRUE NORTH
Consultants
AECOM
Project Manager
ROBERT BIRD GROUP
Structural Engineer
NDY
Mechanical Engineer
JENSEN HUGHES
Fire Engineer
NDY
Electrical Engineer
Client
WESTHAVEN RESIDENTIAL LIMITED PARTNERSHIP
Warren and Mahoney Living New Zealand Ltd
Ground Floor, Mason Bros. 139 Pakenham Street West Wynyard Quarter Auckland 1010

Drawing Title
GROUND LEVEL FLOOR PLAN
Drawing Status
PRELIMINARY DESIGN

Note: The fire engineering sketches are to be read in conjunction with the Fire Engineering Brief (FEB) dated 7th November 2025, which outlines requirements pertaining to fire safety systems, evacuation strategies, etc.

- Note
- This drawing is to be read in conjunction with the fire safety design report. It does not necessarily show all the required safety features.
 - Services that pass through fire or smoke separations are not to degrade the rating of the separation.
 - Services risers shall be fire-stopped at floor level or enclosed slab-to-slab within fire-rated construction.
 - Structural elements supporting fire separations must also be fire-rated to the same value.

Date:
14/07/2025
09/09/2025
17/10/2025
07/11/2025
19/12/2025

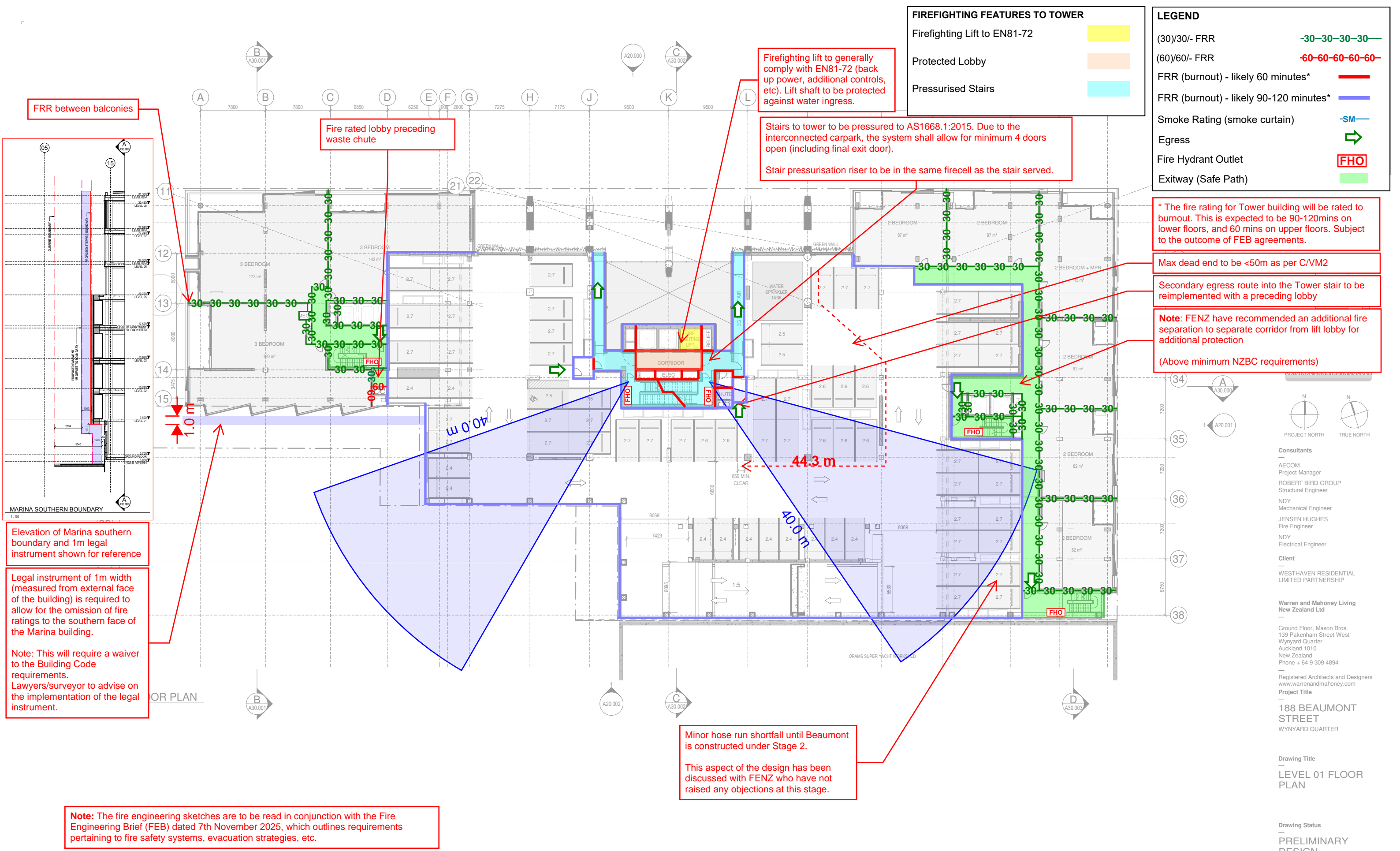
Issue:
A - Concept WIP
B - Prelim WIP
C - 50% Prelim
D - FEB
E - 100% Prelim

Project: Orams Residential - Site 18
Title: Fire Engineering - Ground Floor
Job No: NZ250165
Scale: 1:400 @ A3

Sketch No: Fsk2 01
Revision: E
Background: As shown
Drawn: EH
Checked: DG

1:200@ A1
9:54:59 am
10442
WAM
WAM
Revision
AHONEY





FIREFIGHTING FEATURES TO TOWER

| | |
|------------------------------|--|
| Firefighting Lift to EN81-72 | |
| Protected Lobby | |
| Pressurised Stairs | |

LEGEND

| | |
|--|--|
| (30)/30/- FRR | —30—30—30—30— |
| (60)/60/- FRR | —60—60—60—60— |
| FRR (burnout) - likely 60 minutes* | — |
| FRR (burnout) - likely 90-120 minutes* | — |
| Smoke Rating (smoke curtain) | —SM— |
| Egress | ➔ |
| Fire Hydrant Outlet | FHO |
| Exitway (Safe Path) | |

Firefighting lift to generally comply with EN81-72 (back up power, additional controls, etc). Lift shaft to be protected against water ingress.

Stairs to tower to be pressurised to AS1668.1:2015. Due to the interconnected carpark, the system shall allow for minimum 4 doors open (including final exit door).

Stair pressurisation riser to be in the same firecell as the stair served.

* The fire rating for Tower building will be rated to burnout. This is expected to be 90-120mins on lower floors, and 60 mins on upper floors. Subject to the outcome of FEB agreements.

Max dead end to be <50m as per C/VM2

Secondary egress route into the Tower stair to be reimplemented with a preceding lobby

Note: FENZ have recommended an additional fire separation to separate corridor from lift lobby for additional protection

(Above minimum NZBC requirements)

FRR between balconies

Fire rated lobby preceding waste chute

Elevation of Marina southern boundary and 1m legal instrument shown for reference

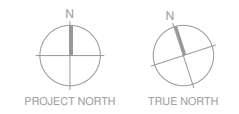
Legal instrument of 1m width (measured from external face of the building) is required to allow for the omission of fire ratings to the southern face of the Marina building.

Note: This will require a waiver to the Building Code requirements. Lawyers/surveyor to advise on the implementation of the legal instrument.

Minor hose run shortfall until Beaumont is constructed under Stage 2.

This aspect of the design has been discussed with FENZ who have not raised any objections at this stage.

Note: The fire engineering sketches are to be read in conjunction with the Fire Engineering Brief (FEB) dated 7th November 2025, which outlines requirements pertaining to fire safety systems, evacuation strategies, etc.



Consultants

- AECOM Project Manager
- ROBERT BIRD GROUP Structural Engineer
- NDY Mechanical Engineer
- JENSEN HUGHES Fire Engineer
- NDY Electrical Engineer

Client

- WESTHAVEN RESIDENTIAL LIMITED PARTNERSHIP
- Warren and Mahoney Living New Zealand Ltd

Ground Floor, Mason Bros, 139 Pakenham Street West Wynyard Quarter Auckland 1010 New Zealand Phone + 64 9 309 4894

Registered Architects and Designers www.warrenandmahoney.com

Project Title

188 BEAUMONT STREET WYNYARD QUARTER

Drawing Title

LEVEL 01 FLOOR PLAN

Drawing Status

PRELIMINARY DESIGN

- Note**
- This drawing is to be read in conjunction with the fire safety design report. It does not necessarily show all the required safety features.
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 - Structural elements supporting fire separations must also be fire-rated to the same value.

Date:
 14/07/2025
 09/09/2025
 17/10/2025
 07/11/2025
 19/12/2025

Issue:
 A - Concept WIP
 B - Prelim WIP
 C - 50% Prelim
 D - FEB
 E - 100% Prelim

Project: Orams Residential - Site 18
Title: Fire Engineering - Level 1
Job No: NZ250165
Scale: 1:400 @ A3

Sketch No: Fsk2 02
Revision: E
Background: As shown
Drawn: EH
Checked: DG

1:200@ A1
 9:55:02 am
 10442
 WAM
 WAM
 Revision
 AHONEY



FIREFIGHTING FEATURES TO TOWER

| | |
|------------------------------|--|
| Firefighting Lift to EN81-72 | |
| Protected Lobby | |
| Pressurised Stairs | |

LEGEND

| | | |
|--|--|------------------|
| (30)/30/- FRR | | -30-30-30-30- |
| (60)/60/- FRR | | -60-60-60-60-60- |
| FRR (burnout) - likely 60 minutes* | | |
| FRR (burnout) - likely 90-120 minutes* | | |
| Smoke Rating (smoke curtain) | | -SM- |
| Egress | | |
| Fire Hydrant Outlet | | FHO |
| Exitway (Safe Path) | | |

Firefighting lift to generally comply with EN81-72 (back up power, additional controls, etc). Lift shaft to be protected against water ingress.

Stairs to tower to be pressured to AS1668.1:2015. Due to the interconnected carpark, the system shall allow for minimum 4 doors open (including final exit door).
Stair pressurisation riser to be in the same firecell as the stair served.

Requirement for the additional doors to create an additional lobby within the horizontal path is subject to negotiations with FENZ as part of ongoing FEB process. Auckland Council have commented that not having these doors is 'not a significant concern'.

* The fire rating for Tower building will be rated to burnout. This is expected to be 90-120mins on lower floors, and 60 mins on upper floors. Subject to the outcome of FEB agreements.

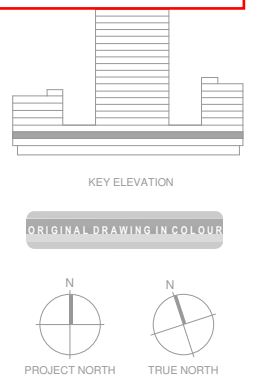
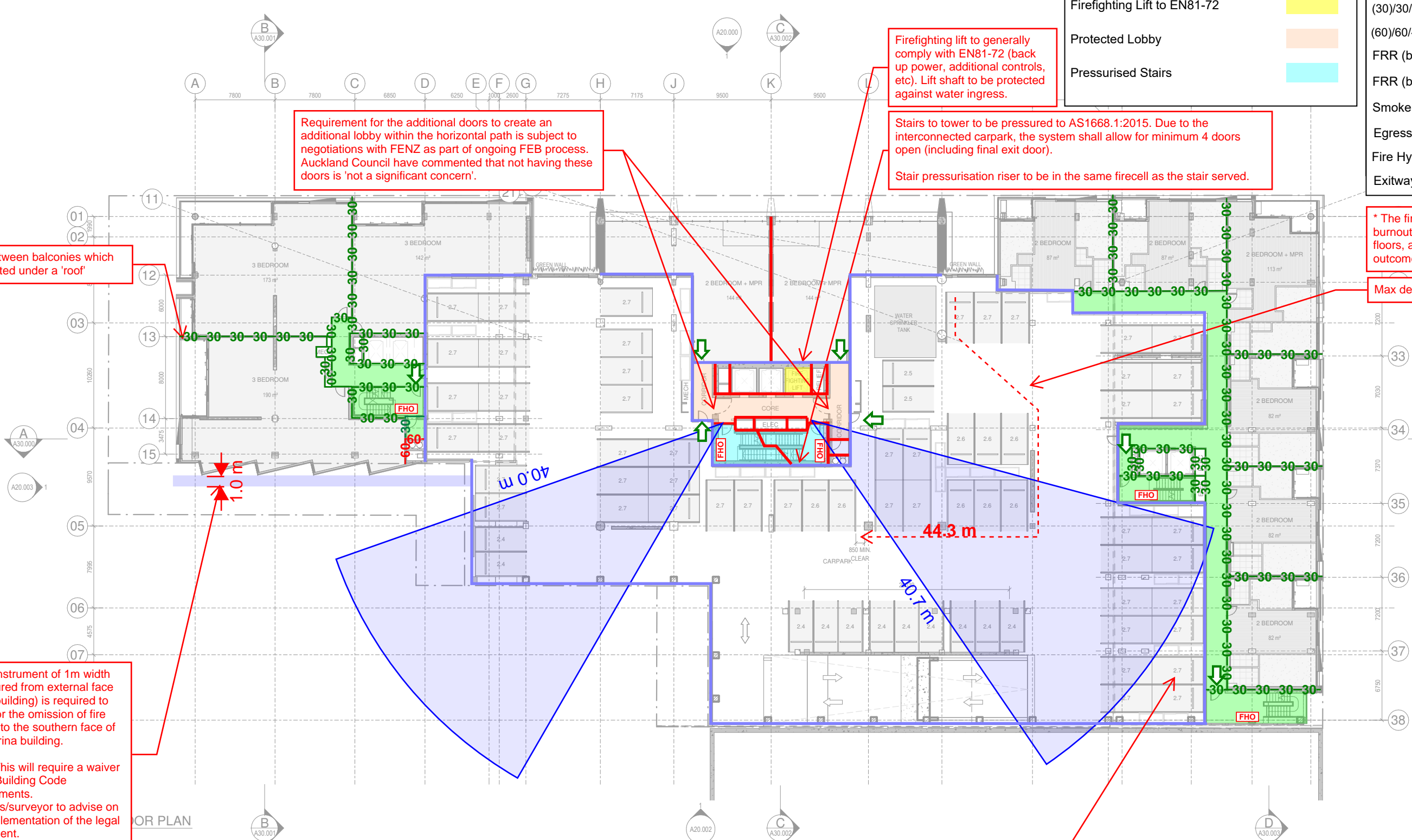
Max dead end to be <50m as per C/VM2

FRR between balconies which are located under a 'roof'

Legal instrument of 1m width (measured from external face of the building) is required to allow for the omission of fire ratings to the southern face of the Marina building.
Note: This will require a waiver to the Building Code requirements. Lawyers/surveyor to advise on the implementation of the legal instrument.

Minor hose run shortfall until Beaumont is constructed under Stage 2.
This aspect of the design has been discussed with FENZ who have not raised any objections at this stage.

Note: The fire engineering sketches are to be read in conjunction with the Fire Engineering Brief (FEB) dated 7th November 2025, which outlines requirements pertaining to fire safety systems, evacuation strategies, etc.



Consultants
 AECOM
 Project Manager
 ROBERT BIRD GROUP
 Structural Engineer
 NDY
 Mechanical Engineer
 JENSEN HUGHES
 Fire Engineer
 NDY
 Electrical Engineer

Client
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 New Zealand
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Registered Architects and Designers
 www.warrenandmahoney.com
 Project Title
 188 BEAUMONT STREET
 WYNYARD QUARTER

Drawing Title
 LEVEL 02 FLOOR PLAN

Drawing Status
 PRELIMINARY DESIGN



- Note**
- This drawing is to be read in conjunction with the fire safety design report. It does not necessarily show all the required safety features.
 - Services that pass through fire or smoke separations are not to degrade the rating of the separation.
 - Services risers shall be fire-stopped at floor level or enclosed slab-to-slab within fire-rated construction.
 - Structural elements supporting fire separations must also be fire-rated to the same value.

Date:
 14/07/2025
 09/09/2025
 17/10/2025
 07/11/2025
 19/12/2025

Issue:
 A - Concept WIP
 B - Prelim WIP
 C - 50% Prelim
 D - FEB
 E - 100% Prelim

Project: Orams Residential - Site 18
 Title: Fire Engineering - Level 2
 Job No: NZ250165
 Scale: 1:400 @ A3

Sketch No: Fsk2 03
 Revision: E
 Background: As shown
 Drawn: EH
 Checked: DG

1 : 200 @ A1
 9:55:06 am
 10442
 WAM
 WAM
 Revision
 AHONEY

FIREFIGHTING FEATURES TO TOWER

| | |
|------------------------------|--|
| Firefighting Lift to EN81-72 | |
| Protected Lobby | |
| Pressurised Stairs | |

LEGEND

| | | |
|--|--|---------------|
| (30)/30/- FRR | | -30-30-30-30- |
| (60)/60/- FRR | | -60-60-60-60- |
| FRR (burnout) - likely 60 minutes* | | |
| FRR (burnout) - likely 90-120 minutes* | | |
| Smoke Rating (smoke curtain) | | -SM- |
| Egress | | |
| Fire Hydrant Outlet | | FHO |
| Exitway (Safe Path) | | |

Firefighting lift to generally comply with EN81-72 (back up power, additional controls, etc). Lift shaft to be protected against water ingress.

Stairs to tower to be pressurised to AS1668.1:2015. Due to the interconnected carpark, the system shall allow for minimum 4 doors open (including final exit door).

Stair pressurisation riser to be in the same firecell as the stair served.

Requirement for the additional doors to create an additional lobby within the horizontal path is subject to negotiations with FENZ as part of ongoing FEB process. Auckland Council have commented that not having these doors is 'not a significant concern'.

* The fire rating for Tower building will be rated to burnout. This is expected to be 90-120mins on lower floors, and 60 mins on upper floors. Subject to the outcome of FEB agreements.

Max dead end to be <50m as per C/VM2

FRR between balconies which are located under a 'roof'

Carpark to be fire separated from Marina core

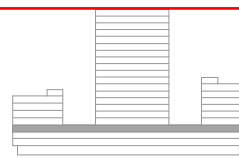
Legal instrument of 1m width (measured from external face of the building) is required to allow for the omission of fire ratings to the southern face of the Marina building.

Note: This will require a waiver to the Building Code requirements. Lawyers/surveyor to advise on the implementation of the legal instrument.

Minor hose run shortfall until Beaumont is constructed under Stage 2.

This aspect of the design has been discussed with FENZ who have not raised any objections at this stage.

Note: The fire engineering sketches are to be read in conjunction with the Fire Engineering Brief (FEB) dated 7th November 2025, which outlines requirements pertaining to fire safety systems, evacuation strategies, etc.



- Consultants**
- AECOM Project Manager
 - ROBERT BIRD GROUP Structural Engineer
 - NDY Mechanical Engineer
 - JENSEN HUGHES Fire Engineer
 - NDY Electrical Engineer

Client
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Registered Architects and Designers
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Project Title
188 BEAUMONT STREET WYNYARD QUARTER

Drawing Title
LEVEL 03 FLOOR PLAN

Drawing Status
PRELIMINARY DESIGN

| | | |
|-------------|----------|------------|
| Sketch No: | Fsk2 04 | 1:200@ A1 |
| Revision: | E | 9:55:10 am |
| Background: | As shown | 10442 |
| Drawn: | EH | WAM |
| Checked: | DG | WAM |

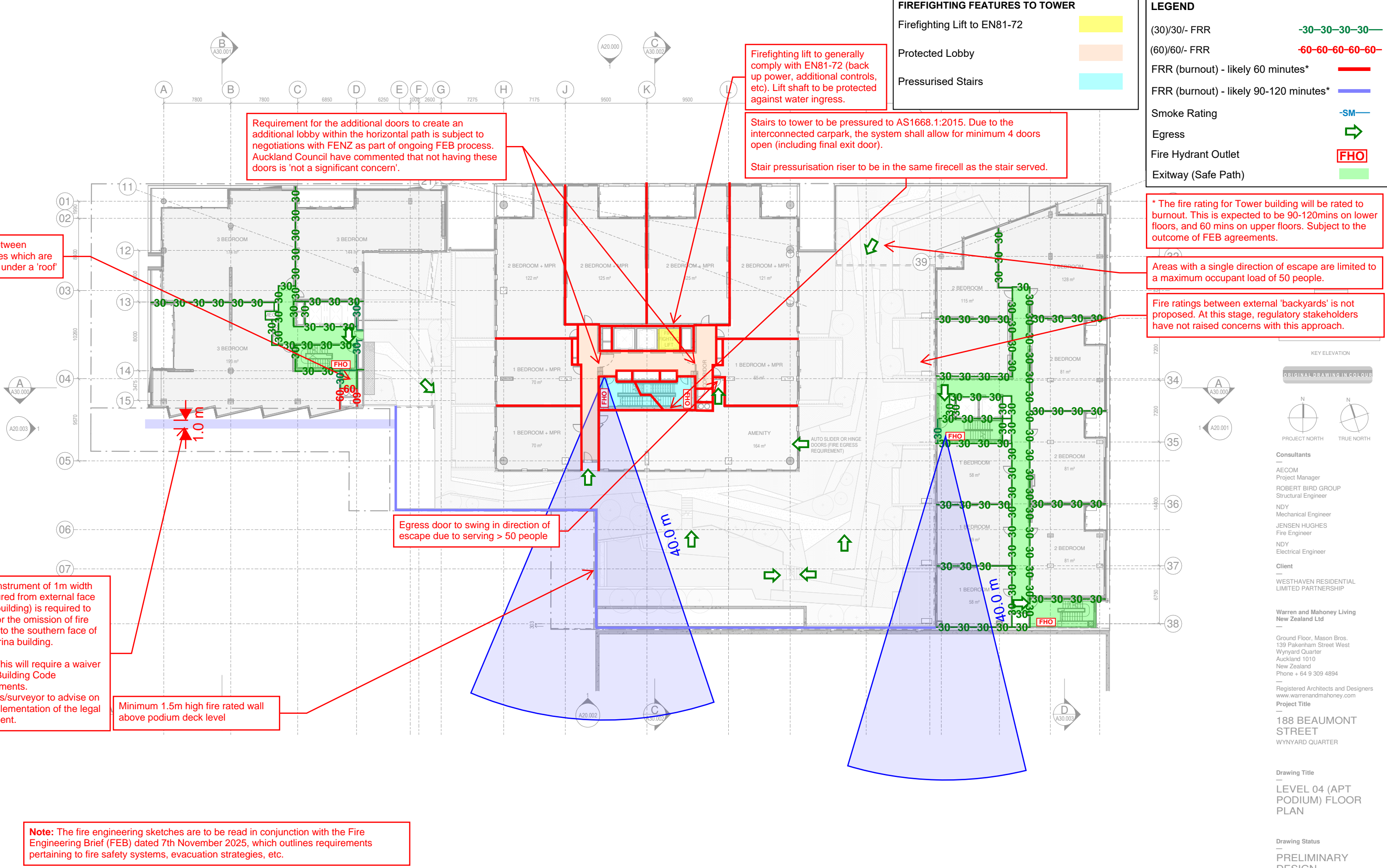


- Note**
- This drawing is to be read in conjunction with the fire safety design report. It does not necessarily show all the required safety features.
 - Services that pass through fire or smoke separations are not to degrade the rating of the separation.
 - Services risers shall be fire-stopped at floor level or enclosed slab-to-slab within fire-rated construction.
 - Structural elements supporting fire separations must also be fire-rated to the same value.

| | | | |
|-------|------------|--------|-----------------|
| Date: | 14/07/2025 | Issue: | A - Concept WIP |
| | 09/09/2025 | | B - Prelim WIP |
| | 17/10/2025 | | C - 50% Prelim |
| | 07/11/2025 | | D - FEB |
| | 19/12/2025 | | E - 100% Prelim |

| | |
|----------|-----------------------------|
| Project: | Orams Residential - Site 18 |
| Title: | Fire Engineering - Level 3 |
| Job No: | NZ250165 |
| Scale: | 1:400 @ A3 |

| | |
|-------------|----------|
| Sketch No: | Fsk2 04 |
| Revision: | E |
| Background: | As shown |
| Drawn: | EH |
| Checked: | DG |



FIRE FIGHTING FEATURES TO TOWER

| | |
|------------------------------|--|
| Firefighting Lift to EN81-72 | |
| Protected Lobby | |
| Pressurised Stairs | |

LEGEND

| | | |
|--|--|---------------|
| (30)/30/- FRR | | -30-30-30-30- |
| (60)/60/- FRR | | -60-60-60-60- |
| FRR (burnout) - likely 60 minutes* | | |
| FRR (burnout) - likely 90-120 minutes* | | |
| Smoke Rating | | -SM- |
| Egress | | |
| Fire Hydrant Outlet | | [FHO] |
| Exitway (Safe Path) | | |

Firefighting lift to generally comply with EN81-72 (back up power, additional controls, etc). Lift shaft to be protected against water ingress.

Stairs to tower to be pressurised to AS1668.1:2015. Due to the interconnected carpark, the system shall allow for minimum 4 doors open (including final exit door).

Stair pressurisation riser to be in the same firecell as the stair served.

Requirement for the additional doors to create an additional lobby within the horizontal path is subject to negotiations with FENZ as part of ongoing FEB process. Auckland Council have commented that not having these doors is 'not a significant concern'.

FRR between balconies which are located under a 'roof'

* The fire rating for Tower building will be rated to burnout. This is expected to be 90-120mins on lower floors, and 60 mins on upper floors. Subject to the outcome of FEB agreements.

Areas with a single direction of escape are limited to a maximum occupant load of 50 people.

Fire ratings between external 'backyards' is not proposed. At this stage, regulatory stakeholders have not raised concerns with this approach.

Legal instrument of 1m width (measured from external face of the building) is required to allow for the omission of fire ratings to the southern face of the Marina building.

Note: This will require a waiver to the Building Code requirements. Lawyers/surveyor to advise on the implementation of the legal instrument.

Minimum 1.5m high fire rated wall above podium deck level

Egress door to swing in direction of escape due to serving > 50 people

Note: The fire engineering sketches are to be read in conjunction with the Fire Engineering Brief (FEB) dated 7th November 2025, which outlines requirements pertaining to fire safety systems, evacuation strategies, etc.

KEY ELEVATION

ORIGINAL DRAWING IN COLOUR

PROJECT NORTH TRUE NORTH

Consultants

- AECOM Project Manager
- ROBERT BIRD GROUP Structural Engineer
- NDY Mechanical Engineer
- JENSEN HUGHES Fire Engineer
- NDY Electrical Engineer

Client

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Ground Floor, Mason Bros. 139 Pakenham Street West Wynyard Quarter Auckland 1010 New Zealand Phone + 64 9 309 4894

Registered Architects and Designers www.warrenandmahoney.com

Project Title

188 BEAUMONT STREET WYNYARD QUARTER

Drawing Title

LEVEL 04 (APT PODIUM) FLOOR PLAN

Drawing Status

PRELIMINARY DESIGN



- Note**
- This drawing is to be read in conjunction with the fire safety design report. It does not necessarily show all the required safety features.
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Date:

- 14/07/2025
- 09/09/2025
- 17/10/2025
- 07/11/2025
- 19/12/2025

Issue:

- A - Concept WIP
- B - Prelim WIP
- C - 50% Prelim
- D - FEB
- E - 100% Prelim

Project: Orams Residential - Site 18

Title: Fire Engineering - Level 4

Job No: NZ250165

Scale: 1:400 @ A3

Sketch No: Fsk2 05

Revision: E

Background: As shown

Drawn: EH

Checked: DG

1 : 200 @ A1
9:55:15 am
10442
WAM
WAM
Revision

AHONEY

FIREFIGHTING FEATURES TO TOWER

| | |
|------------------------------|--|
| Firefighting Lift to EN81-72 | |
| Protected Lobby | |
| Pressurised Stairs | |

LEGEND

| | | |
|--|--|------------------|
| (30)/30/- FRR | | -30-30-30-30- |
| (60)/60/- FRR | | -60-60-60-60-60- |
| FRR (burnout) - likely 60 minutes* | | |
| FRR (burnout) - likely 90-120 minutes* | | |
| Smoke Rating (smoke curtain) | | -SM- |
| Egress | | |
| Fire Hydrant Outlet | | FHO |
| Exitway (Safe Path) | | |

* The fire rating for Tower building will be rated to burnout. This is expected to be 90-120mins on lower floors, and 60 mins on upper floors. Subject to the outcome of FEB agreements.

Firefighting lift to generally comply with EN81-72 (back up power, additional controls, etc). Lift shaft to be protected against water ingress.

Stairs to tower to be pressured to AS1668.1:2015. Due to the interconnected carpark, the system shall allow for minimum 4 doors open (including final exit door).
Stair pressurisation riser to be in the same firecell as the stair served.

Requirement for the additional doors to create an additional lobby within the horizontal path is subject to negotiations with FENZ as part of ongoing FEB process. Auckland Council have commented that not having these doors is 'not a significant concern'.

FRR between balconies which are located under a 'roof'

Legal instrument of 1m width (measured from external face of the building) is required to allow for the omission of fire ratings to the southern face of the Marina building.
Note: This will require a waiver to the Building Code requirements. Lawyers/surveyor to advise on the implementation of the legal instrument.

Note: The fire engineering sketches are to be read in conjunction with the Fire Engineering Brief (FEB) dated 7th November 2025, which outlines requirements pertaining to fire safety systems, evacuation strategies, etc.

- Note**
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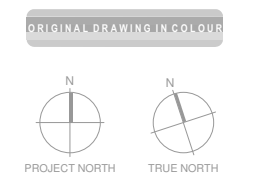
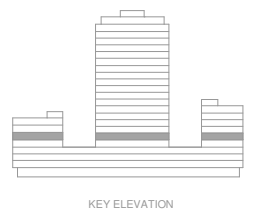
Date:
14/07/2025
09/09/2025
17/10/2025
07/11/2025
19/12/2025

Issue:
A - Concept WIP
B - Prelim WIP
C - 50% Prelim
D - FEB
E - 100% Prelim

Project: Orams Residential - Site 18
Title: Fire Engineering - Level 5
Job No: NZ250165
Scale: 1:400 @ A3

Sketch No: Fsk2 06
Revision: E
Background: As shown
Drawn: EH
Checked: DG

1 : 200 @ A1
9:55:19 am
10442
WAM
WAM
Revision
AHONEY



Consultants
AECOM
Project Manager
ROBERT BIRD GROUP
Structural Engineer
NDY
Mechanical Engineer
JENSEN HUGHES
Fire Engineer
NDY
Electrical Engineer
Client
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Wynyard Quarter
Auckland 1010
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Phone + 64 9 309 4894
Registered Architects and Designers
www.warrenandmahoney.com
Project Title
188 BEAUMONT STREET
WYNYARD QUARTER

Drawing Title
LEVEL 05 FLOOR PLAN
Drawing Status
PRELIMINARY DESIGN

FIREFIGHTING FEATURES TO TOWER

| | |
|------------------------------|--|
| Firefighting Lift to EN81-72 | |
| Protected Lobby | |
| Pressurised Stairs | |

LEGEND

| | |
|--|--|
| (30)/30/- FRR | |
| (60)/60/- FRR | |
| FRR (burnout) - likely 60 minutes* | |
| FRR (burnout) - likely 90-120 minutes* | |
| Smoke Rating (smoke curtain) | |
| Egress | |
| Fire Hydrant Outlet | |
| Exitway (Safe Path) | |

Firefighting lift to generally comply with EN81-72 (back up power, additional controls, etc). Lift shaft to be protected against water ingress.

Stairs to tower to be pressured to AS1668.1:2015. Due to the interconnected carpark, the system shall allow for minimum 4 doors open (including final exit door).
Stair pressurisation riser to be in the same firecell as the stair served.

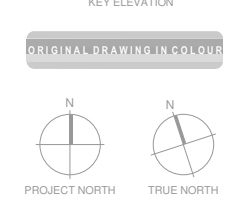
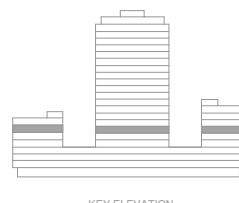
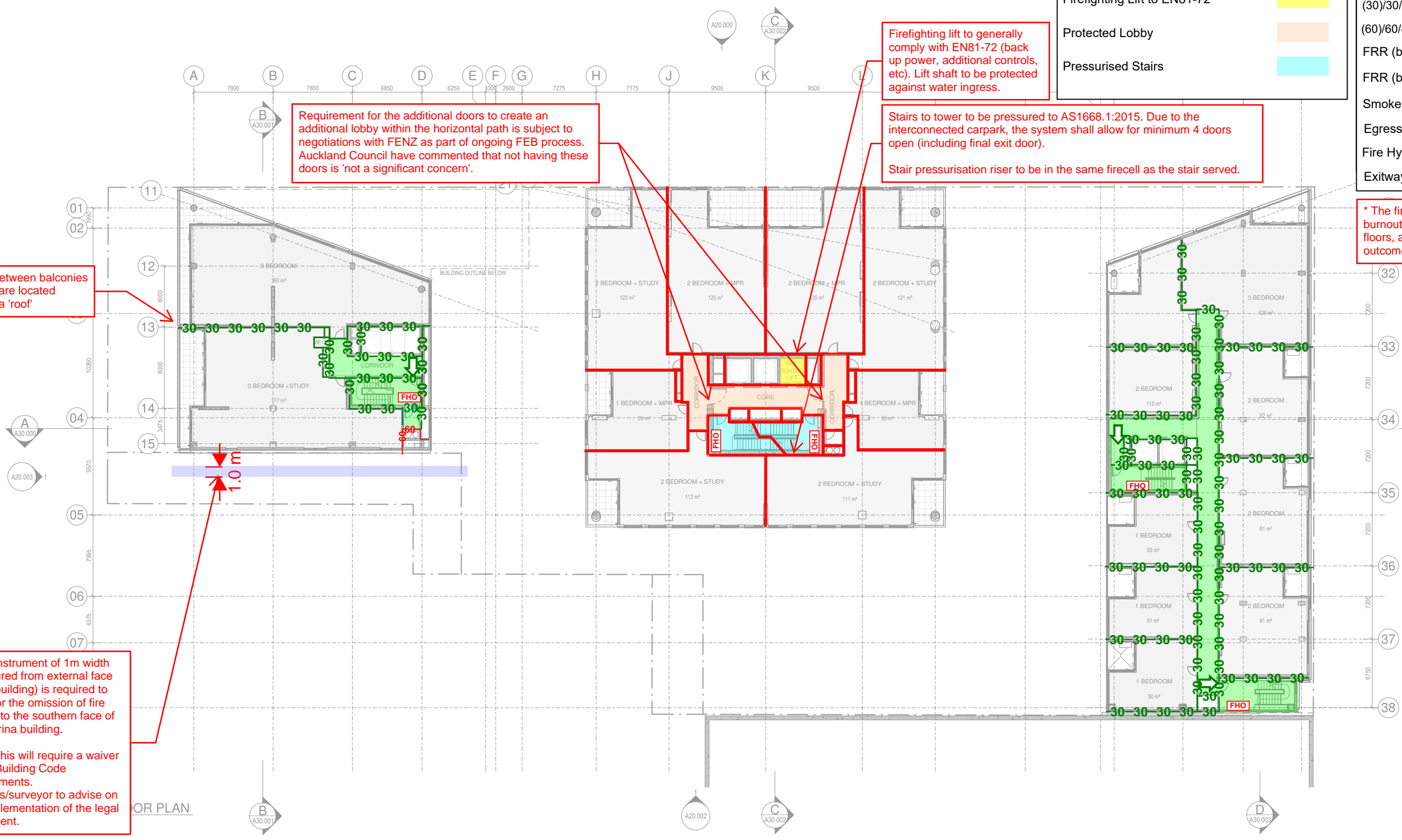
Requirement for the additional doors to create an additional lobby within the horizontal path is subject to negotiations with FENZ as part of ongoing FEB process. Auckland Council have commented that not having these doors is 'not a significant concern'.

* The fire rating for Tower building will be rated to burnout. This is expected to be 90-120mins on lower floors, and 60 mins on upper floors. Subject to the outcome of FEB agreements.

FRR between balconies which are located under a 'roof'

Legal instrument of 1m width (measured from external face of the building) is required to allow for the omission of fire ratings to the southern face of the Marina building.
Note: This will require a waiver to the Building Code requirements. Lawyers/surveyor to advise on the implementation of the legal instrument.

Note: The fire engineering sketches are to be read in conjunction with the Fire Engineering Brief (FEB) dated 7th November 2025, which outlines requirements pertaining to fire safety systems, evacuation strategies, etc.



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 Project Manager
 ROBERT BIRD GROUP
 Structural Engineer
 NDY
 Mechanical Engineer
 JENSEN HUGHES
 Fire Engineer
 NDY
 Electrical Engineer

Client
 WESTHAVEN RESIDENTIAL LIMITED PARTNERSHIP

Warren and Mahoney Living New Zealand Ltd
 Ground Floor, Mason Bros.
 139 Pakenham Street West
 Wynyard Quarter
 Auckland 1010
 New Zealand
 Phone + 64 9 309 4894
 Registered Architects and Designers
 www.warrenandmahoney.com
 Project Title
188 BEAUMONT STREET
 WYNYARD QUARTER

Drawing Title
LEVEL 06 FLOOR PLAN

Drawing Status
PRELIMINARY DESIGN



- Note**
- This drawing is to be read in conjunction with the fire safety design report. It does not necessarily show all the required safety features.
 - Services that pass through fire or smoke separations are not to degrade the rating of the separation.
 - Services risers shall be fire-stopped at floor level or enclosed slab-to-slab within fire-rated construction.
 - Structural elements supporting fire separations must also be fire-rated to the same value.

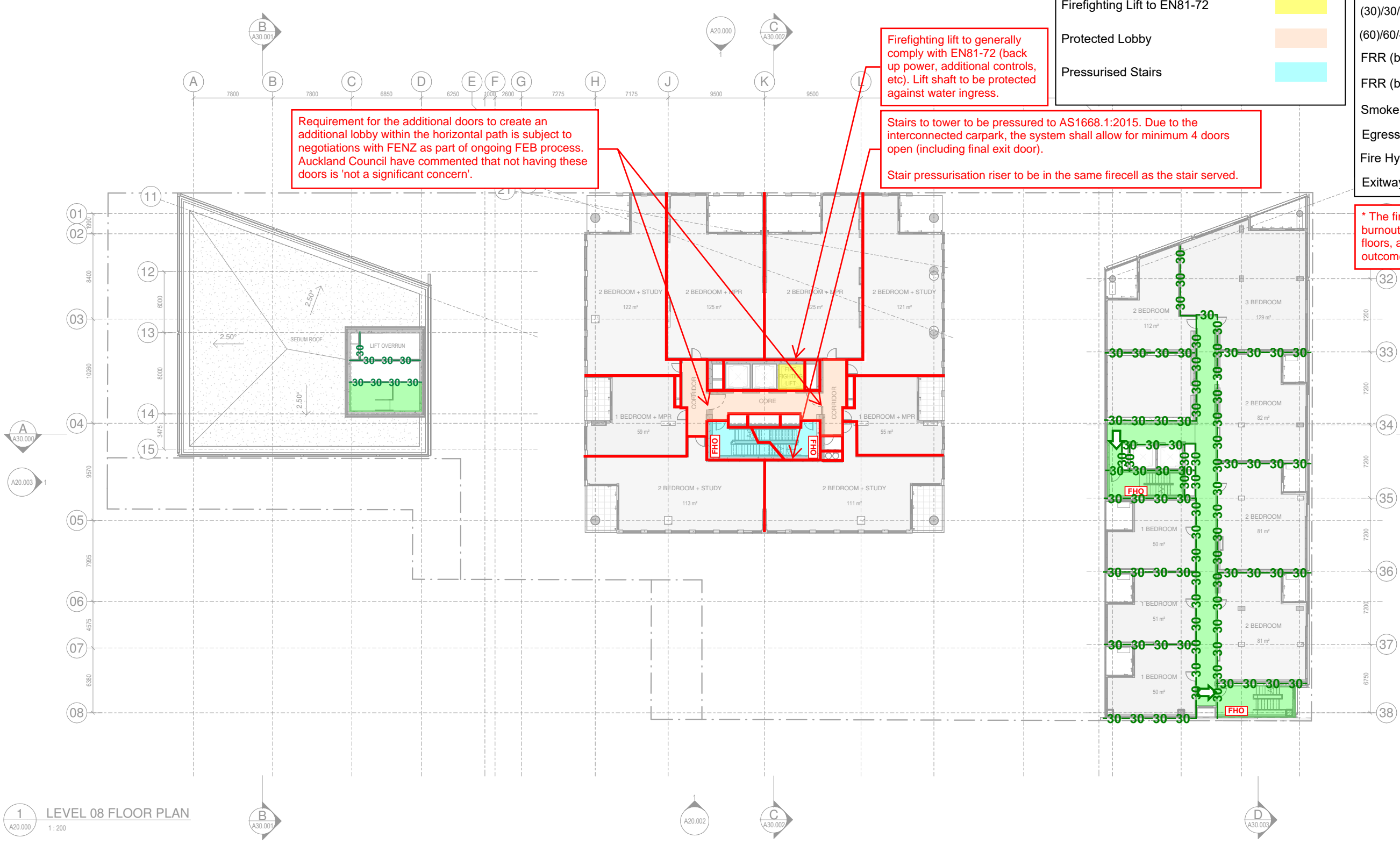
Date:
 14/07/2025
 09/09/2025
 17/10/2025
 07/11/2025
 19/12/2025

Issue:
 A - Concept WIP
 B - Prelim WIP
 C - 50% Prelim
 D - FEB
 E - 100% Prelim

Project: Orams Residential - Site 18
 Title: Fire Engineering - Level 6-7
 Job No: NZ250165
 Scale: 1:400 @ A3

Sketch No: Fsk2 07
 Revision: E
 Background: As shown
 Drawn: EH
 Checked: DG

1 : 200 @ A1
 9:55:23 am
 10442
 WAM
 WAM
 Revision
 AHONEY



FIREFIGHTING FEATURES TO TOWER

- Firefighting Lift to EN81-72
- Protected Lobby
- Pressurised Stairs

LEGEND

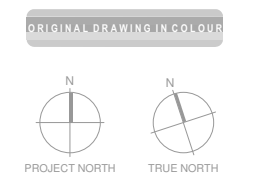
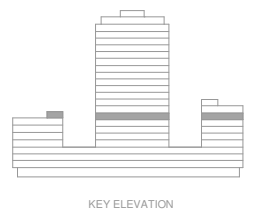
- (30)/30/- FRR —30—30—30—30—
- (60)/60/- FRR —60—60—60—60—60—
- FRR (burnout) - likely 60 minutes* —
- FRR (burnout) - likely 90-120 minutes* —
- Smoke Rating (smoke curtain) —SM—
- Egress ➡
- Fire Hydrant Outlet FHO
- Exitway (Safe Path)

Requirement for the additional doors to create an additional lobby within the horizontal path is subject to negotiations with FENZ as part of ongoing FEB process. Auckland Council have commented that not having these doors is 'not a significant concern'.

Firefighting lift to generally comply with EN81-72 (back up power, additional controls, etc). Lift shaft to be protected against water ingress.

Stairs to tower to be pressurised to AS1668.1:2015. Due to the interconnected carpark, the system shall allow for minimum 4 doors open (including final exit door).
Stair pressurisation riser to be in the same firecell as the stair served.

* The fire rating for Tower building will be rated to burnout. This is expected to be 90-120mins on lower floors, and 60 mins on upper floors. Subject to the outcome of FEB agreements.



Consultants

- AECOM
Project Manager
- ROBERT BIRD GROUP
Structural Engineer
- NDY
Mechanical Engineer
- JENSEN HUGHES
Fire Engineer
- NDY
Electrical Engineer

Client

- WESTHAVEN RESIDENTIAL LIMITED PARTNERSHIP

Warren and Mahoney Living New Zealand Ltd

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Registered Architects and Designers
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Project Title

188 BEAUMONT STREET
WYNYARD QUARTER

Drawing Title

LEVEL 08 FLOOR PLAN

Drawing Status

PRELIMINARY DESIGN

1 LEVEL 08 FLOOR PLAN
A20.000 1:200

Note: The fire engineering sketches are to be read in conjunction with the Fire Engineering Brief (FEB) dated 7th November 2025, which outlines requirements pertaining to fire safety systems, evacuation strategies, etc.



- Note**
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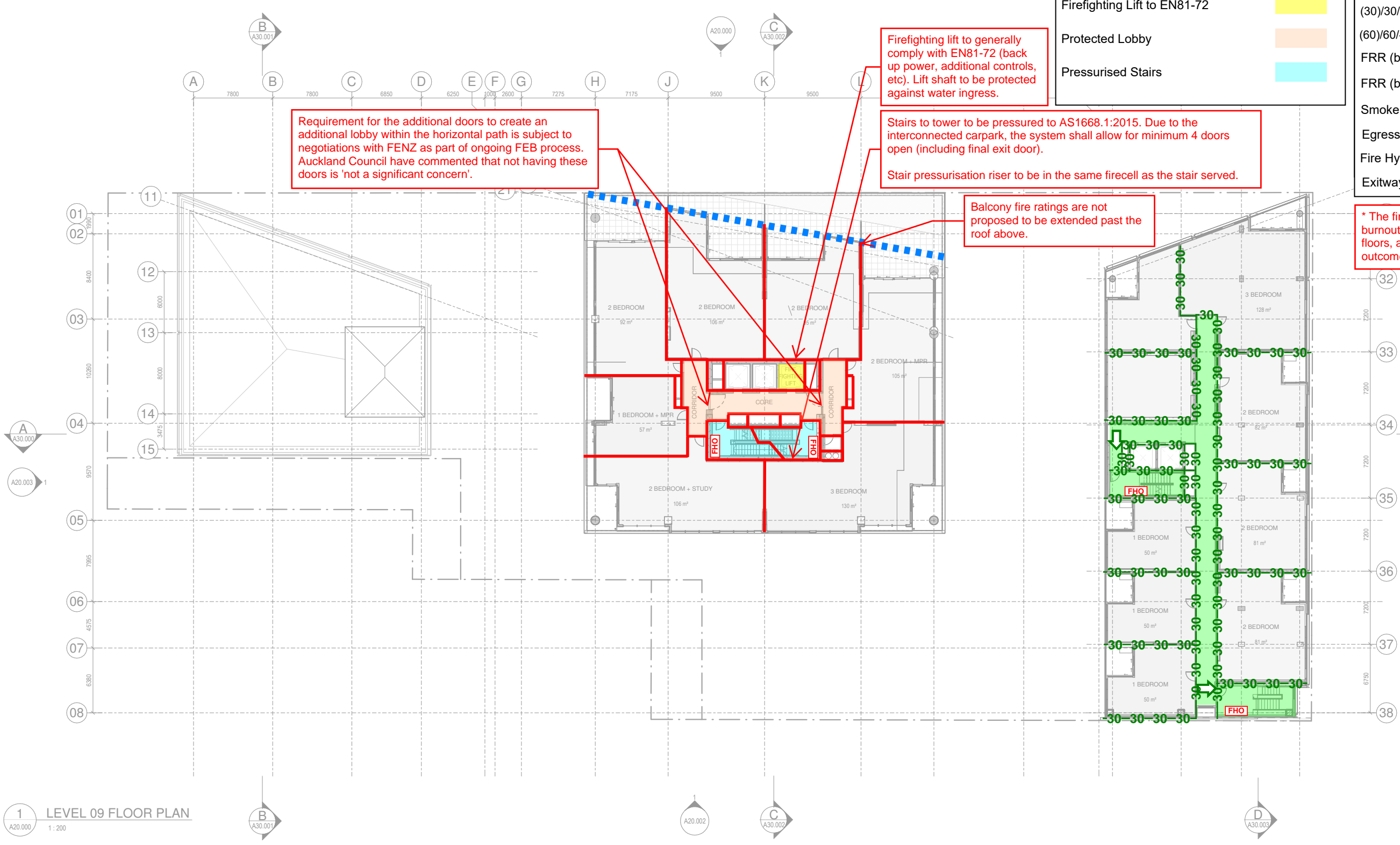
Date:
14/07/2025
09/09/2025
17/10/2025
07/11/2025
19/12/2025

Issue:
A - Concept WIP
B - Prelim WIP
C - 50% Prelim
D - FEB
E - 100% Prelim

Project: Orams Residential - Site 18
Title: Fire Engineering - Level 8
Job No: NZ250165
Scale: 1:400 @ A3

Sketch No: Fsk2 08
Revision: E
Background: As shown
Drawn: EH
Checked: DG

1:200@ A1
9:55:29 am
10442
WAM
WAM
Revision
AHONEY



FIREFIGHTING FEATURES TO TOWER

- Firefighting Lift to EN81-72
- Protected Lobby
- Pressurised Stairs

LEGEND

- (30)/30/- FRR -30-30-30-30-
- (60)/60/- FRR -60-60-60-60-60-
- FRR (burnout) - likely 60 minutes* - - -
- FRR (burnout) - likely 90-120 minutes* - - -
- Smoke Rating (smoke curtain) -SM-
- Egress ➡
- Fire Hydrant Outlet FHO
- Exitway (Safe Path)

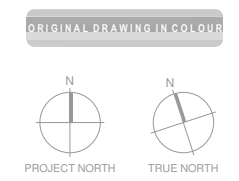
Requirement for the additional doors to create an additional lobby within the horizontal path is subject to negotiations with FENZ as part of ongoing FEB process. Auckland Council have commented that not having these doors is 'not a significant concern'.

Firefighting lift to generally comply with EN81-72 (back up power, additional controls, etc). Lift shaft to be protected against water ingress.

Stairs to tower to be pressurised to AS1668.1:2015. Due to the interconnected carpark, the system shall allow for minimum 4 doors open (including final exit door).
Stair pressurisation riser to be in the same firecell as the stair served.

Balcony fire ratings are not proposed to be extended past the roof above.

* The fire rating for Tower building will be rated to burnout. This is expected to be 90-120mins on lower floors, and 60 mins on upper floors. Subject to the outcome of FEB agreements.



Consultants

- AECOM Project Manager
- ROBERT BIRD GROUP Structural Engineer
- NDY Mechanical Engineer
- JENSEN HUGHES Fire Engineer
- NDY Electrical Engineer

Client

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www.warrenandmahoney.com
Project Title
188 BEAUMONT STREET
WYNYARD QUARTER

Drawing Title
LEVEL 09 FLOOR PLAN

Drawing Status
PRELIMINARY DESIGN

1 LEVEL 09 FLOOR PLAN
A20.000 1:200

Note: The fire engineering sketches are to be read in conjunction with the Fire Engineering Brief (FEB) dated 7th November 2025, which outlines requirements pertaining to fire safety systems, evacuation strategies, etc.



- Note**
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 - Structural elements supporting fire separations must also be fire-rated to the same value.

Date:
14/07/2025
09/09/2025
17/10/2025
07/11/2025
19/12/2025

Issue:
A - Concept WIP
B - Prelim WIP
C - 50% Prelim
D - FEB
E - 100% Prelim

Project: Orams Residential - Site 18
Title: Fire Engineering - Level 9
Job No: NZ250165
Scale: 1:400 @ A3

Sketch No: Fsk2 09
Revision: E
Background: As shown
Drawn: EH
Checked: DG

1:200@ A1
9:55:32 am
10442
WAM
WAM
Revision
AHONEY

FIREFIGHTING FEATURES TO TOWER

| | |
|------------------------------|--|
| Firefighting Lift to EN81-72 | |
| Protected Lobby | |
| Pressurised Stairs | |

LEGEND

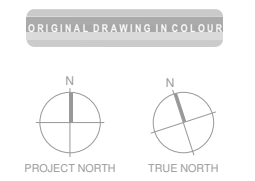
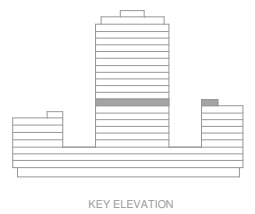
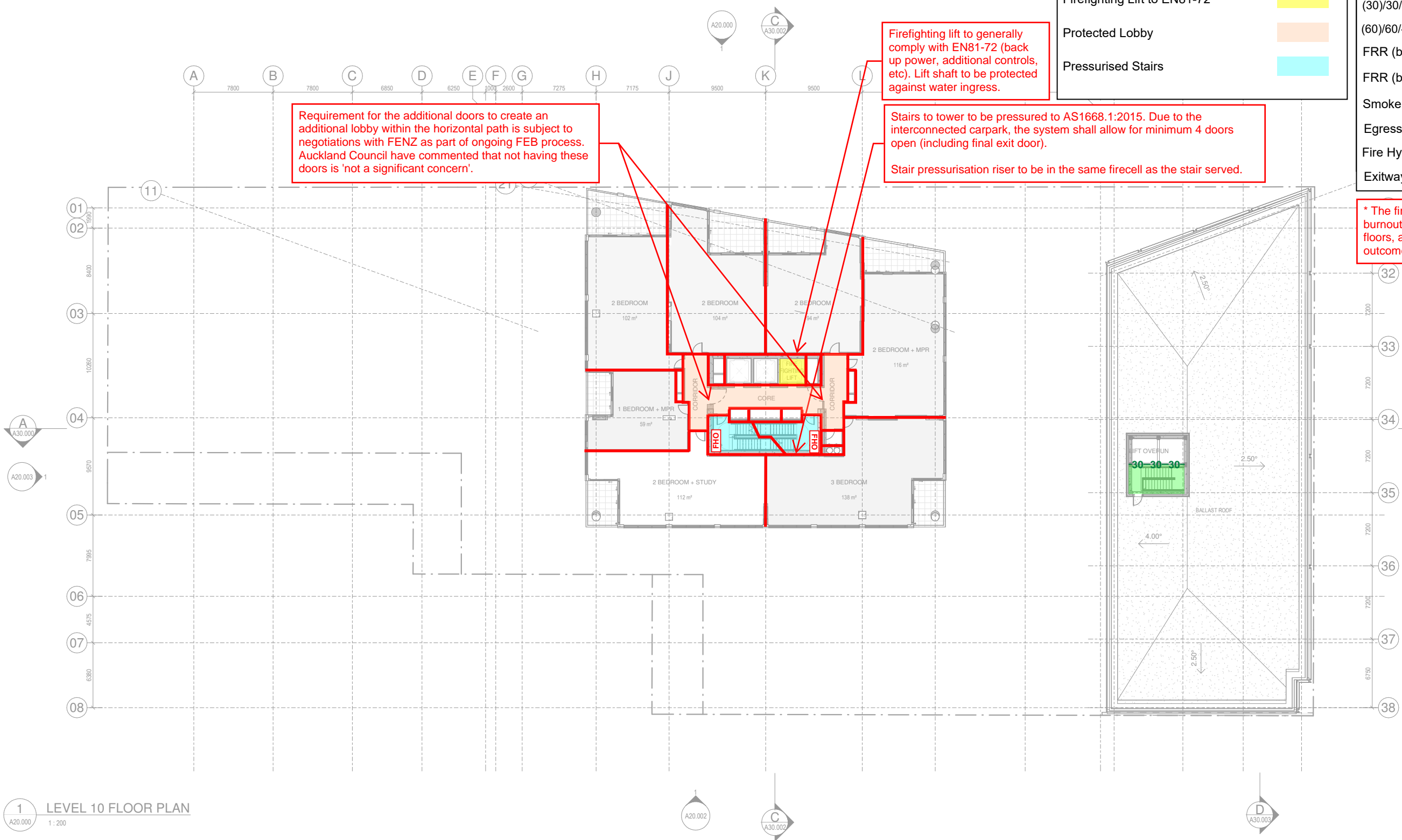
| | | |
|--|--|------------------|
| (30)/30/- FRR | | -30-30-30-30- |
| (60)/60/- FRR | | -60-60-60-60-60- |
| FRR (burnout) - likely 60 minutes* | | |
| FRR (burnout) - likely 90-120 minutes* | | |
| Smoke Rating (smoke curtain) | | -SM- |
| Egress | | |
| Fire Hydrant Outlet | | FHO |
| Exitway (Safe Path) | | |

Firefighting lift to generally comply with EN81-72 (back up power, additional controls, etc). Lift shaft to be protected against water ingress.

Stairs to tower to be pressurised to AS1668.1:2015. Due to the interconnected carpark, the system shall allow for minimum 4 doors open (including final exit door).
Stair pressurisation riser to be in the same firecell as the stair served.

Requirement for the additional doors to create an additional lobby within the horizontal path is subject to negotiations with FENZ as part of ongoing FEB process. Auckland Council have commented that not having these doors is 'not a significant concern'.

* The fire rating for Tower building will be rated to burnout. This is expected to be 90-120mins on lower floors, and 60 mins on upper floors. Subject to the outcome of FEB agreements.



Consultants
 AECOM
 Project Manager
 ROBERT BIRD GROUP
 Structural Engineer
 NDY
 Mechanical Engineer
 JENSEN HUGHES
 Fire Engineer
 NDY
 Electrical Engineer

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Registered Architects and Designers
 www.warrenandmahoney.com
Project Title
 188 BEAUMONT STREET
 WYNYARD QUARTER

Drawing Title
 LEVEL 10 FLOOR PLAN

Drawing Status
 PRELIMINARY DESIGN

1 LEVEL 10 FLOOR PLAN
 A20.000 1:200

Note: The fire engineering sketches are to be read in conjunction with the Fire Engineering Brief (FEB) dated 7th November 2025, which outlines requirements pertaining to fire safety systems, evacuation strategies, etc.



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Date:
 14/07/2025
 09/09/2025
 17/10/2025
 07/11/2025
 19/12/2025

Issue:
 A - Concept WIP
 B - Prelim WIP
 C - 50% Prelim
 D - FEB
 E - 100% Prelim

Project: Orams Residential - Site 18
Title: Fire Engineering - Level 10
Job No: NZ250165
Scale: 1:400 @ A3

Sketch No: Fsk2 10
Revision: E
Background: As shown
Drawn: EH
Checked: DG

1:200@ A1
 9:55:38 am
 10442
 WAM
 WAM
 Revision
 AHONEY

FIREFIGHTING FEATURES TO TOWER

| | |
|------------------------------|--|
| Firefighting Lift to EN81-72 | |
| Protected Lobby | |
| Pressurised Stairs | |

LEGEND

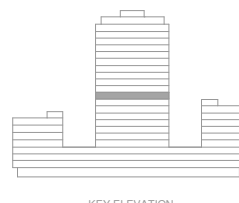
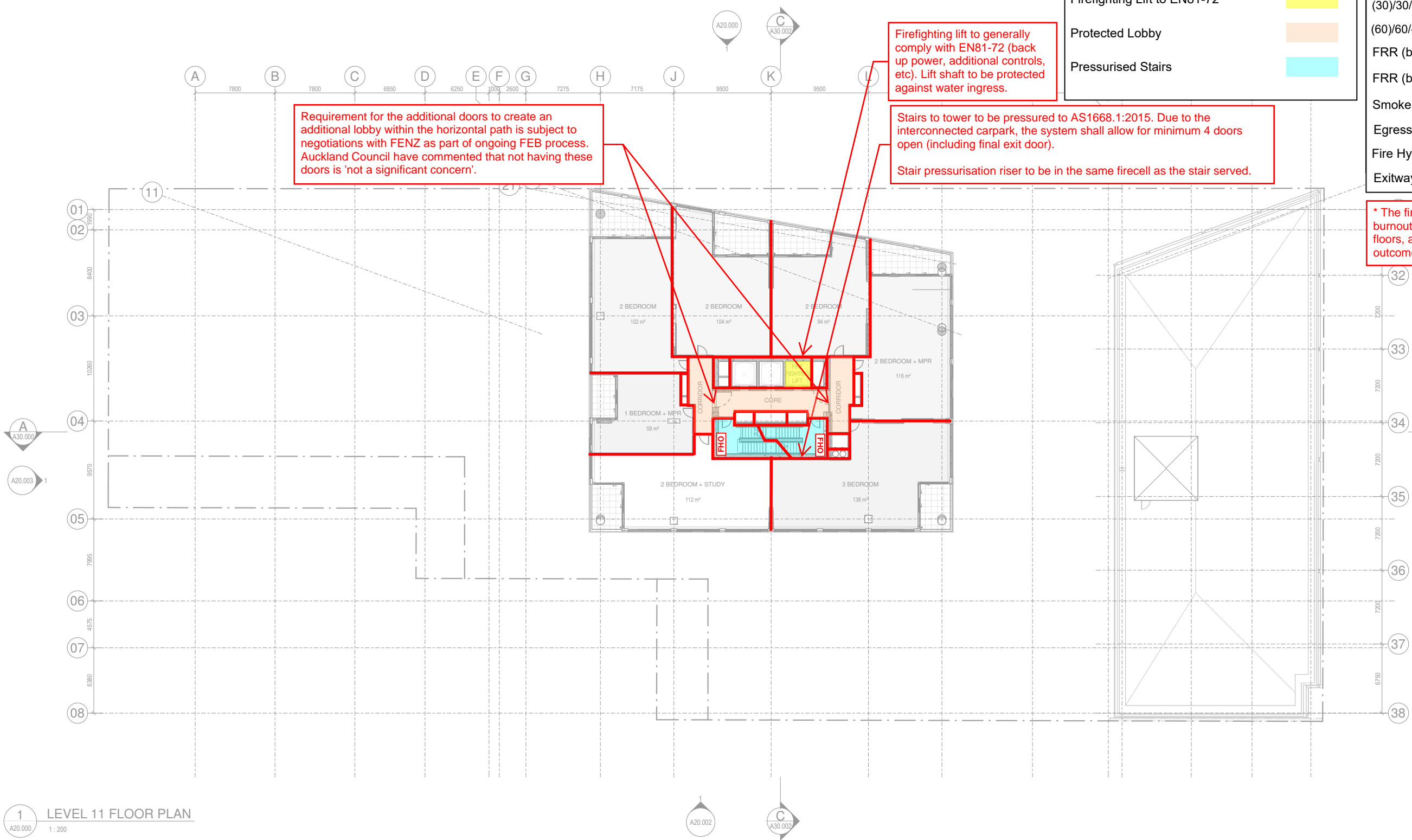
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|--|--|---------------|
| (30)/30/- FRR | | -30-30-30-30- |
| (60)/60/- FRR | | -60-60-60-60- |
| FRR (burnout) - likely 60 minutes* | | |
| FRR (burnout) - likely 90-120 minutes* | | |
| Smoke Rating (smoke curtain) | | -SM- |
| Egress | | |
| Fire Hydrant Outlet | | FHO |
| Exitway (Safe Path) | | |

Firefighting lift to generally comply with EN81-72 (back up power, additional controls, etc). Lift shaft to be protected against water ingress.

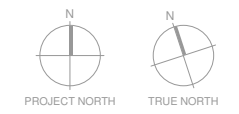
Stairs to tower to be pressurised to AS1668.1:2015. Due to the interconnected carpark, the system shall allow for minimum 4 doors open (including final exit door).
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KEY ELEVATION



- Consultants**
- AECOM
Project Manager
 - ROBERT BIRD GROUP
Structural Engineer
 - NDY
Mechanical Engineer
 - JENSEN HUGHES
Fire Engineer
 - NDY
Electrical Engineer

Client

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Registered Architects and Designers
www.warrenandmahoney.com

Project Title

188 BEAUMONT STREET
WYNYARD QUARTER

Drawing Title

LEVEL 11 FLOOR PLAN

Drawing Status

PRELIMINARY DESIGN

1 LEVEL 11 FLOOR PLAN
A20.000 1:200

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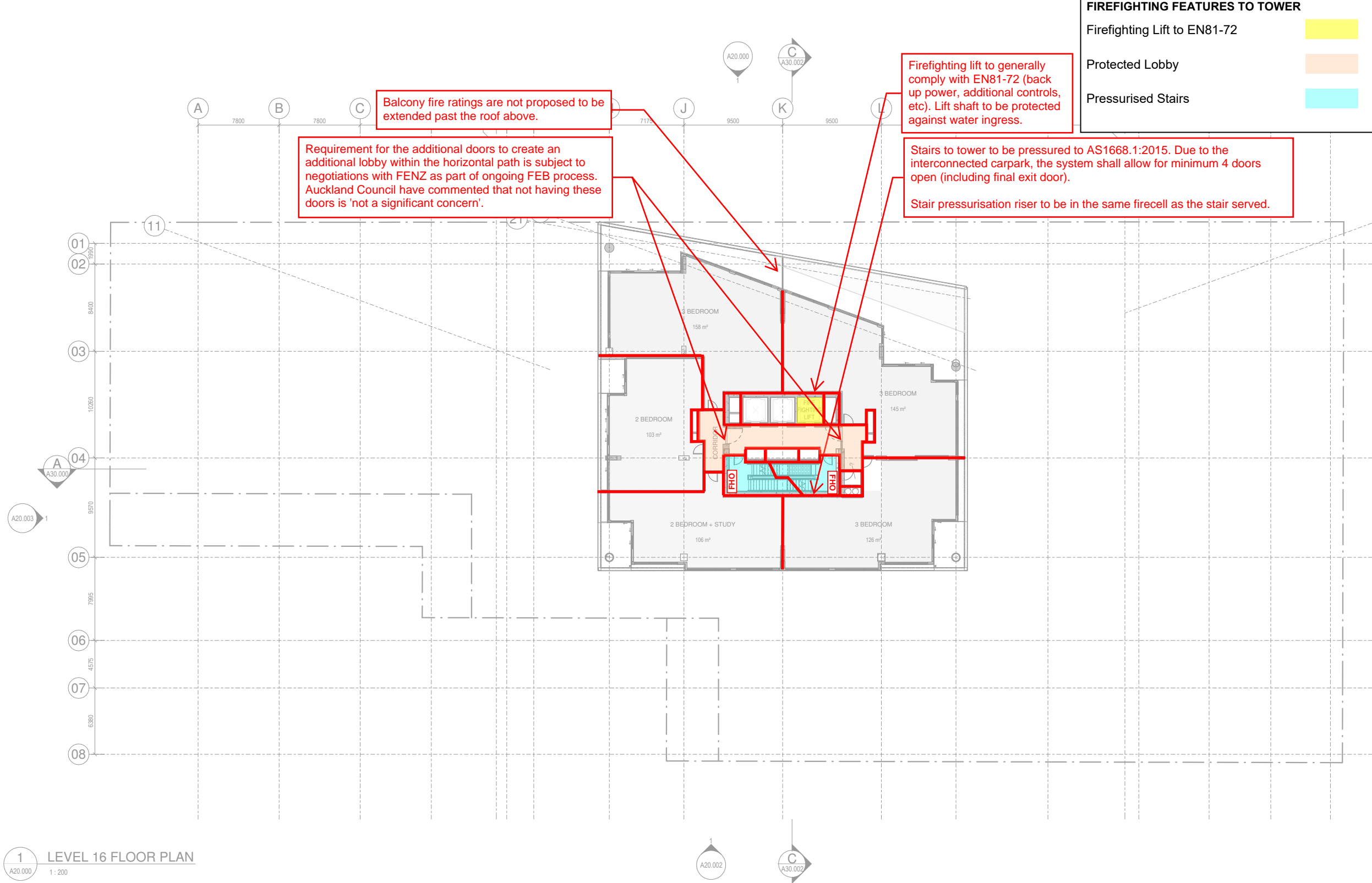
Date:
14/07/2025
09/09/2025
17/10/2025
07/11/2025
19/12/2025

Issue:
A - Concept WIP
B - Prelim WIP
C - 50% Prelim
D - FEB
E - 100% Prelim

Project: Orams Residential - Site 18
Title: Fire Engineering - Level 11-15
Job No: NZ250165
Scale: 1:400 @ A3

Sketch No: Fsk2 11
Revision: E
Background: As shown
Drawn: EH
Checked: DG

1:200@ A1
9:55:41 am
10442
WAM
WAM
Revision
AHONEY



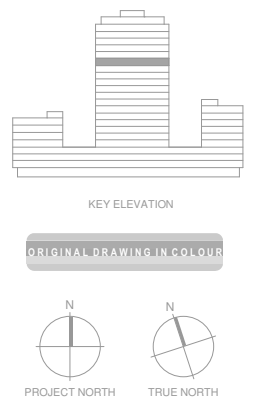
FIREFIGHTING FEATURES TO TOWER

| | |
|------------------------------|--|
| Firefighting Lift to EN81-72 | |
| Protected Lobby | |
| Pressurised Stairs | |

LEGEND

| | | |
|--|--|---------------|
| (30)/30/- FRR | | -30-30-30-30- |
| (60)/60/- FRR | | -60-60-60-60- |
| FRR (burnout) - likely 60 minutes* | | |
| FRR (burnout) - likely 90-120 minutes* | | |
| Smoke Rating (smoke curtain) | | -SM- |
| Egress | | |
| Fire Hydrant Outlet | | FHO |
| Exitway (Safe Path) | | |

* The fire rating for Tower building will be rated to burnout. This is expected to be 90-120mins on lower floors, and 60 mins on upper floors. Subject to the outcome of FEB agreements.



Consultants

- AECOM
Project Manager
- ROBERT BIRD GROUP
Structural Engineer
- NDY
Mechanical Engineer
- JENSEN HUGHES
Fire Engineer
- NDY
Electrical Engineer

Client

WESTHAVEN RESIDENTIAL LIMITED PARTNERSHIP

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Auckland 1010
New Zealand
Phone + 64 9 309 4894

Registered Architects and Designers
www.warrenandmahoney.com

Project Title

188 BEAUMONT STREET
WYNYARD QUARTER

Drawing Title

LEVEL 16 FLOOR PLAN

Drawing Status

PRELIMINARY DESIGN

1 LEVEL 16 FLOOR PLAN
A20.000 1:200

Note: The fire engineering sketches are to be read in conjunction with the Fire Engineering Brief (FEB) dated 7th November 2025, which outlines requirements pertaining to fire safety systems, evacuation strategies, etc.



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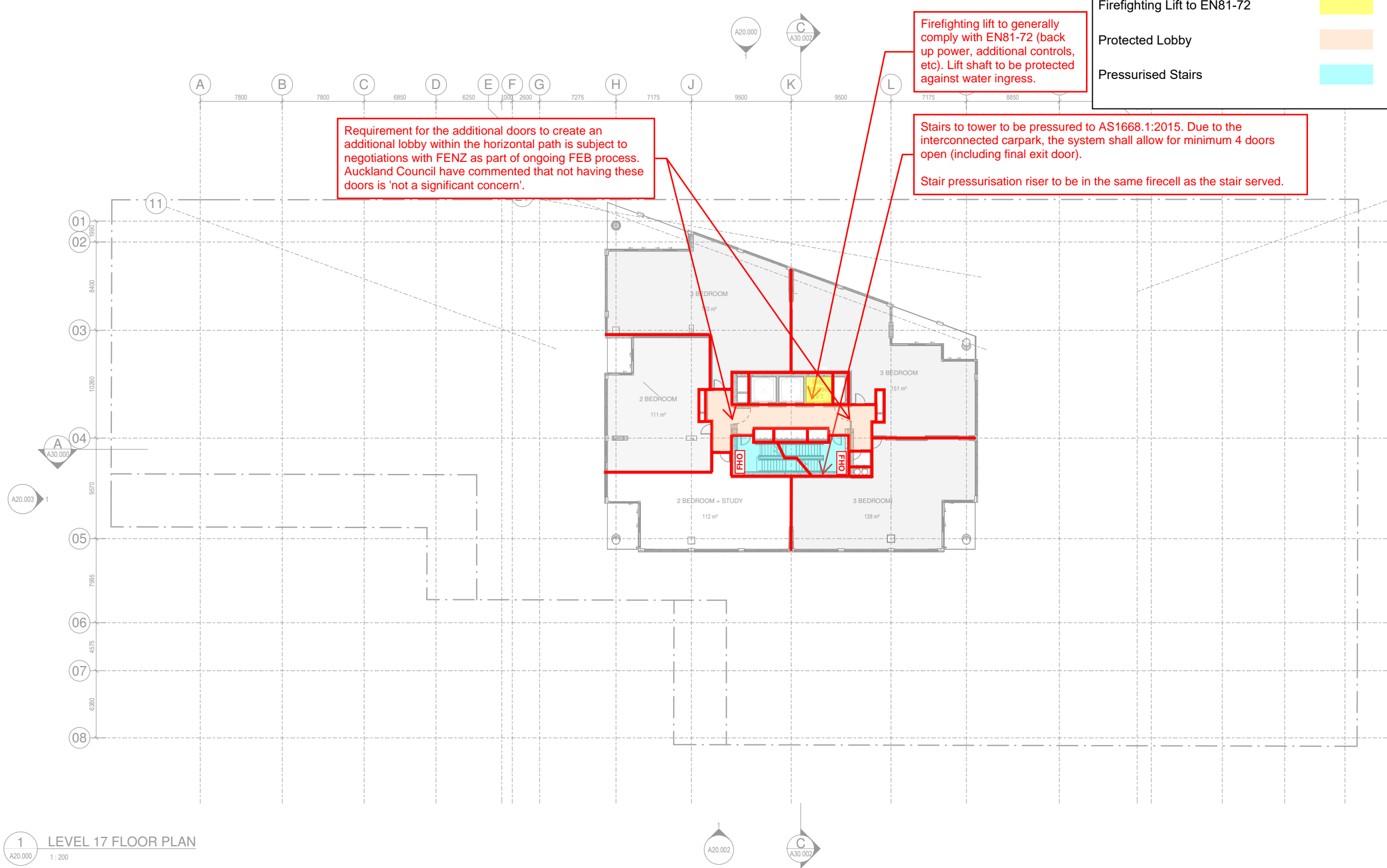
Date:
14/07/2025
09/09/2025
17/10/2025
07/11/2025
19/12/2025

Issue:
A - Concept WIP
B - Prelim WIP
C - 50% Prelim
D - FEB
E - 100% Prelim

Project: Orams Residential - Site 18
Title: Fire Engineering - Level 16
Job No: NZ250165
Scale: 1:400 @ A3

Sketch No: Fsk2 12
Revision: E
Background: As shown
Drawn: EH
Checked: DG

1:200@ A1
9:55:59 am
10442
WAM
WAM
Revision
AHONEY



| FIREFIGHTING FEATURES TO TOWER | |
|--------------------------------|--|
| Firefighting Lift to EN81-72 | |
| Protected Lobby | |
| Pressurised Stairs | |

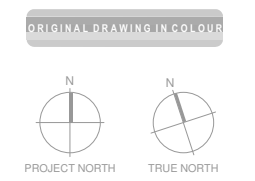
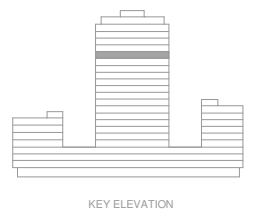
| LEGEND | |
|--|--|
| (30)/30/- FRR | |
| (60)/60/- FRR | |
| FRR (burnout) - likely 60 minutes* | |
| FRR (burnout) - likely 90-120 minutes* | |
| Smoke Rating (smoke curtain) | |
| Egress | |
| Fire Hydrant Outlet | |
| Exitway (Safe Path) | |

Requirement for the additional doors to create an additional lobby within the horizontal path is subject to negotiations with FENZ as part of ongoing FEB process. Auckland Council have commented that not having these doors is 'not a significant concern'.

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Consultants
 AECOM
 Project Manager
 ROBERT BIRD GROUP
 Structural Engineer
 NDY
 Mechanical Engineer
 JENSEN HUGHES
 Fire Engineer
 NDY
 Electrical Engineer

Client
 WESTHAVEN RESIDENTIAL LIMITED PARTNERSHIP

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 New Zealand
 Phone + 64 9 309 4894

Registered Architects and Designers
 www.warrenandmahoney.com
Project Title
 188 BEAUMONT STREET
 WYNYARD QUARTER

Drawing Title
 LEVEL 17 FLOOR PLAN

Drawing Status
 PRELIMINARY DESIGN

1 LEVEL 17 FLOOR PLAN
 A20.000 1:200

Note: The fire engineering sketches are to be read in conjunction with the Fire Engineering Brief (FEB) dated 7th November 2025, which outlines requirements pertaining to fire safety systems, evacuation strategies, etc.



- Note**
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Date:
 14/07/2025
 09/09/2025
 17/10/2025
 07/11/2025
 19/12/2025

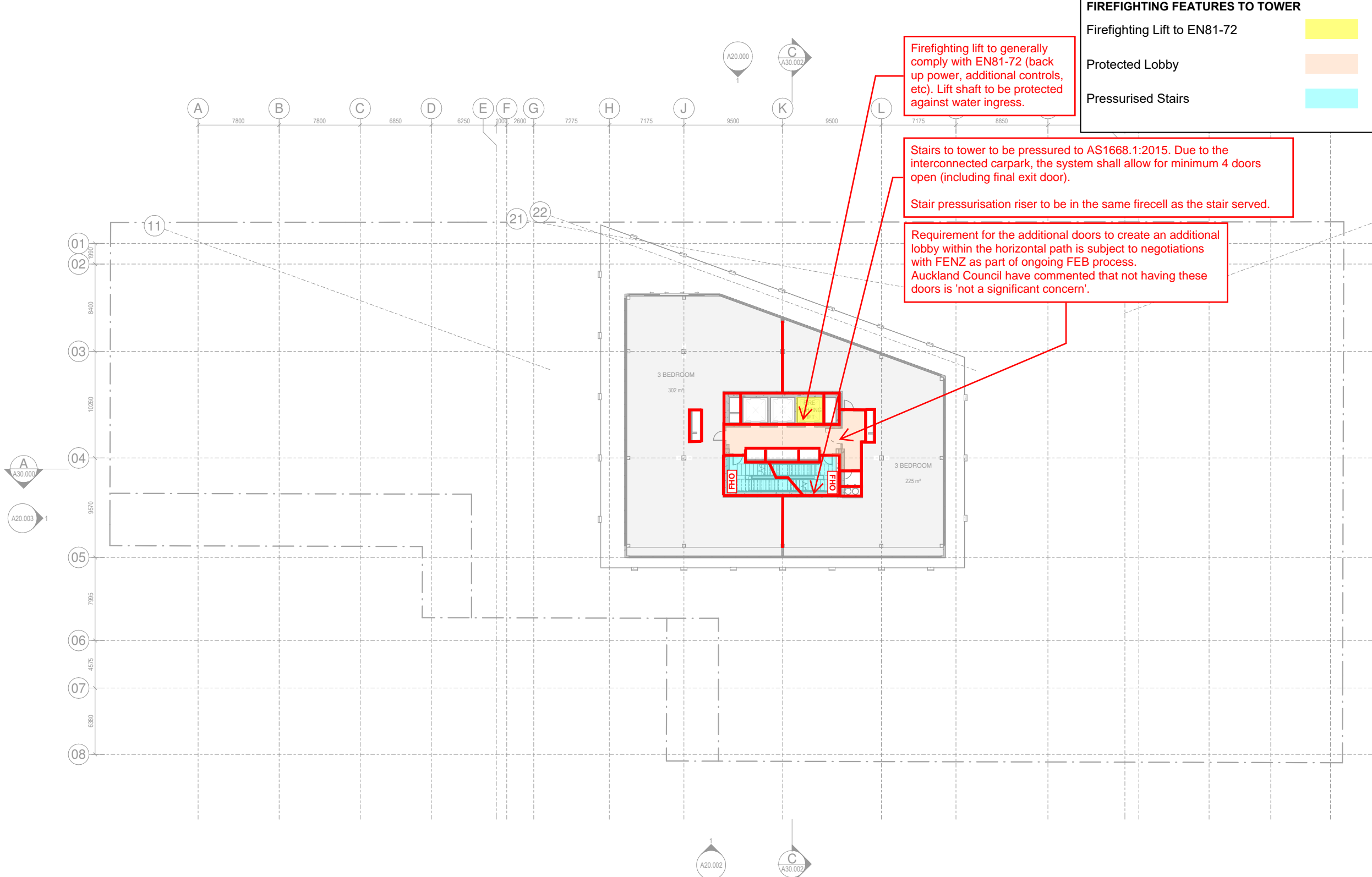
Issue:
 A - Concept WIP
 B - Prelim WIP
 C - 50% Prelim
 D - FEB
 E - 100% Prelim

Project: Orams Residential - Site 18
Title: Fire Engineering - Level 17-21

Job No: NZ250165
Scale: 1:400 @ A3

Sketch No: Fsk2 13
Revision: E
Background: As shown
Drawn: EH
Checked: DG

1:200@ A1
 9:56:06 am
 10442
 WAM
 WAM
 Revision
 AHONEY



FIREFIGHTING FEATURES TO TOWER

| | |
|------------------------------|--|
| Firefighting Lift to EN81-72 | |
| Protected Lobby | |
| Pressurised Stairs | |

LEGEND

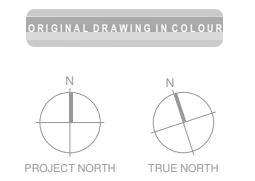
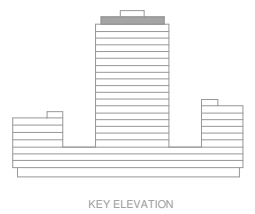
| | | |
|--|--|---------------|
| (30)/30/- FRR | | -30-30-30-30- |
| (60)/60/- FRR | | -60-60-60-60- |
| FRR (burnout) - likely 60 minutes* | | |
| FRR (burnout) - likely 90-120 minutes* | | |
| Smoke Rating (smoke curtain) | | -SM- |
| Egress | | |
| Fire Hydrant Outlet | | FHO |
| Exitway (Safe Path) | | |

Firefighting lift to generally comply with EN81-72 (back up power, additional controls, etc). Lift shaft to be protected against water ingress.

Stairs to tower to be pressured to AS1668.1:2015. Due to the interconnected carpark, the system shall allow for minimum 4 doors open (including final exit door).
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Consultants

- AECOM
Project Manager
- ROBERT BIRD GROUP
Structural Engineer
- NDY
Mechanical Engineer
- JENSEN HUGHES
Fire Engineer
- NDY
Electrical Engineer

Client

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New Zealand
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Registered Architects and Designers
www.warrenandmahoney.com

Project Title

188 BEAUMONT STREET
WYNYARD QUARTER

Drawing Title

LEVEL 22 (PENTHOUSE) FLOOR PLAN

Drawing Status

PRELIMINARY DESIGN

1 LEVEL 22 (PENTHOUSE) FLOOR PLAN
A20.000 1:200

Note: The fire engineering sketches are to be read in conjunction with the Fire Engineering Brief (FEB) dated 7th November 2025, which outlines requirements pertaining to fire safety systems, evacuation strategies, etc.



- Note**
- This drawing is to be read in conjunction with the fire safety design report. It does not necessarily show all the required safety features.
 - Services that pass through fire or smoke separations are not to degrade the rating of the separation.
 - Services risers shall be fire-stopped at floor level or enclosed slab-to-slab within fire-rated construction.
 - Structural elements supporting fire separations must also be fire-rated to the same value.

Date:
14/07/2025
09/09/2025
17/10/2025
07/11/2025
19/12/2025

Issue:
A - Concept WIP
B - Prelim WIP
C - 50% Prelim
D - FEB
E - 100% Prelim

Project: Orams Residential - Site 18
Title: Fire Engineering - Level 22

Job No: NZ250165
Scale: 1:400 @ A3

Sketch No: Fsk2 14
Revision: E
Background: As shown

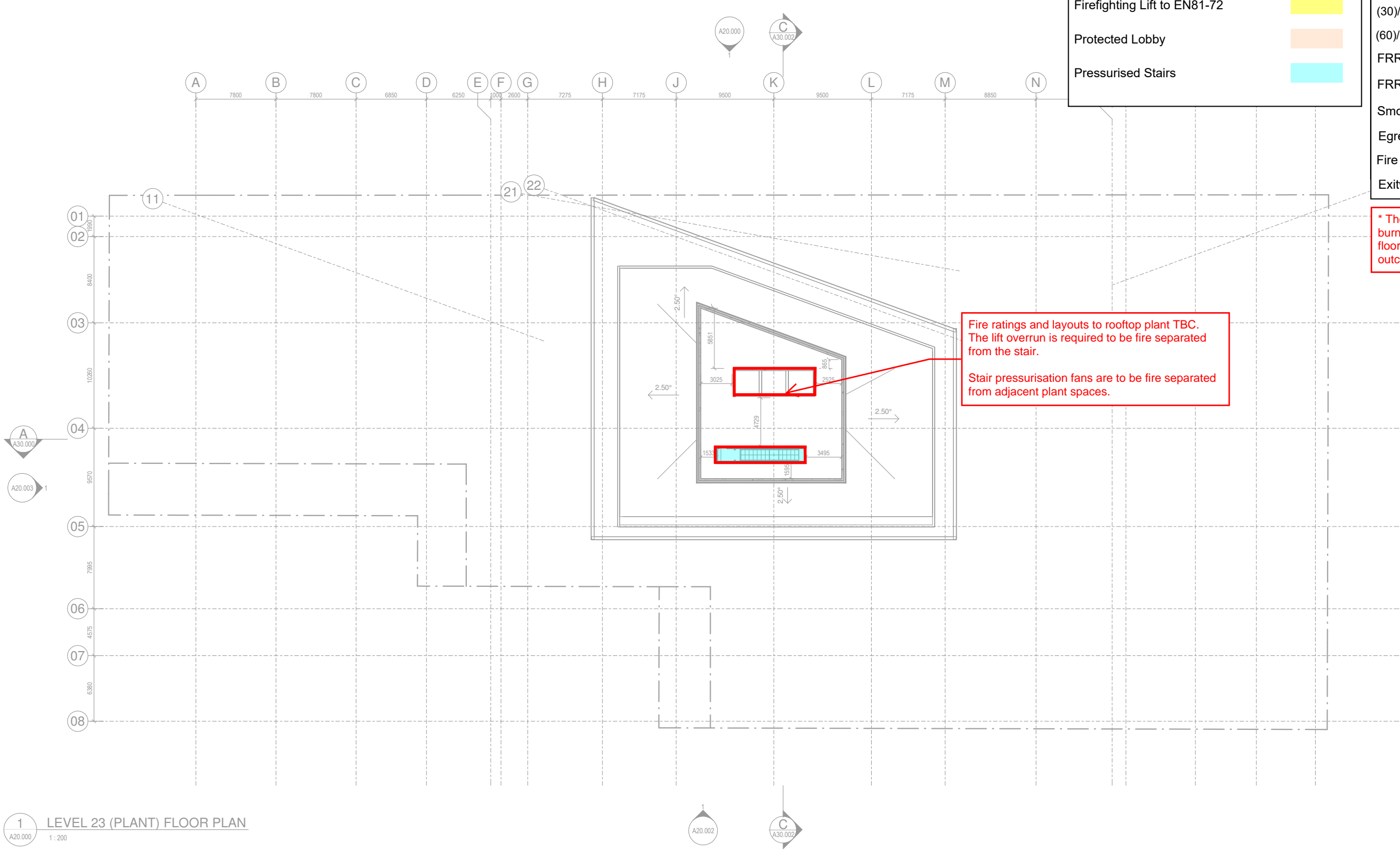
Drawn: EH
Checked: DG

1:200@ A1
9:56:38 am
10442
WAM
WAM
Revision
AHONEY

| FIREFIGHTING FEATURES TO TOWER | |
|--------------------------------|--|
| Firefighting Lift to EN81-72 | |
| Protected Lobby | |
| Pressurised Stairs | |

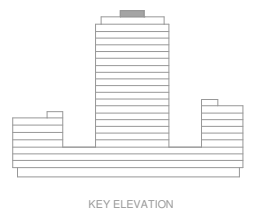
| LEGEND | |
|--|--|
| (30)/30/- FRR | |
| (60)/60/- FRR | |
| FRR (burnout) - likely 60 minutes* | |
| FRR (burnout) - likely 90-120 minutes* | |
| Smoke Rating (smoke curtain) | |
| Egress | |
| Fire Hydrant Outlet | |
| Exitway (Safe Path) | |

* The fire rating for Tower building will be rated to burnout. This is expected to be 90-120mins on lower floors, and 60 mins on upper floors. Subject to the outcome of FEB agreements.



Fire ratings and layouts to rooftop plant TBC. The lift overrun is required to be fire separated from the stair.

Stair pressurisation fans are to be fire separated from adjacent plant spaces.



Consultants
 AECOM
 Project Manager
 ROBERT BIRD GROUP
 Structural Engineer
 NDY
 Mechanical Engineer
 JENSEN HUGHES
 Fire Engineer
 NDY
 Electrical Engineer

Client
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Registered Architects and Designers
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 Project Title
 188 BEAUMONT STREET
 WYNYARD QUARTER

Drawing Title
 LEVEL 23 (PLANT) FLOOR PLAN

Drawing Status
 PRELIMINARY DESIGN

1 LEVEL 23 (PLANT) FLOOR PLAN
 A20.000 1:200

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Project: Orams Residential - Site 18
 Title: Fire Engineering - Level 23
 Job No: NZ250165
 Scale: 1:400 @ A3

Sketch No: Fsk2 15
 Revision: E
 Background: As shown
 Drawn: EH
 Checked: DG

1:200@ A1
 9:56:44 am
 10442
 WAM
 WAM
 Revision
 AHONEY

