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Proposed Mixed Use Development

7-15 Horne Street, Elsternwick

22 December 2020





ratio:consultants

8 Gwynne Street Cremorne VIC 3121 ABN 93 983 380 225 Prepared for:

Auyin Property Development Pty Ltd

Our reference:

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Site Address

7-15 Horne Street, Elsternwick

Local Council

Glen Eira City Council (Phone: 03 9524 3333)

Proposal

Land Use Type: Mixed Use Development (Residential SDA

Apartments + Retail Tenancies)

Number of levels: Nine storeys + two basement levels

Number of residential apartments: 43 Retail floor area: 280 square metres

Planning Application Number

GE/DP-32409/2018

Residential Waste Generation Estimates

General Garbage	Commingled Recycling	Food Organics	Glass Recycling
3,224 L/week	4,960 L/week	1,736 L/week	1,488 L/week

Interim Residential Bin Schedule

Waste Stream	Bin Quantity	Bin Size	Collection Frequency	Minimum Required Bin Storage Area
General Garbage	3	1100 L	Twice weekly	2.6 m ²
Commingled Recycling	3	1100 L	Twice weekly	2.6 m ²
Hard Waste & E-Waste	2.0 m ²			
Net Minimum Required Bin Storage Area (excluding circulation)				7.2 m ²



Ultimate Residential Bin Schedule

Waste Stream	Bin Quantity	Bin Size	Collection Frequency	Minimum Required Bin Storage Area
General Garbage	2	1100 L	Twice weekly	2.6 m ²
Commingled Recycling	3	1100 L	Twice weekly	3.9 m ²
Food Organics	4	240 L	Twice weekly	1.6 m ²
Glass Recycling	4	240 L	Twice weekly	1.6 m ²
Hard Waste & E-Waste	2.0 m² storage area As required			2.0 m ²
Net Minimum Required Bin Storage Area (excluding circulation)				11.7 m²

Commercial Waste Generation Estimates

General Garbage	Commingled Recycling	Food Organics	Glass Recycling
1,176 L/week	2,156 L/week	6,076 L/week	392 L/week

Interim Commercial Bin Schedule

Waste Stream	Bin Quantity	Bin Size	Collection Frequency	Minimum Required Bin Storage Area
General Garbage	4	1100 L	Twice weekly	5.2 m ²
Commingled Recycling	2	660 L	Twice weekly	2.0 m ²
Hard Waste 8 E-Waste 2.0 m² storage area As required				2.0 m ²
Net Minimum Required Bin Storage Area (excluding circulation)				9.2 m ²



Ultimate Commercial Bin Schedule

Waste Stream	Bin Quantity	Bin Size	Collection Frequency	Minimum Required Bin Storage Area
General Garbage	1	1100 L	Twice weekly	1.3 m ²
Commingled Recycling	1	1100 L	Twice weekly	1.3 m ²
Food Organics	13	240 L	Twice weekly	5.2 m ²
Glass Recycling	2	240 L	Weekly	0.8 m ²
Hard Waste & E-Waste	2.0 m ² storage area			2.0 m ²
Net Minimum Required Bin Storage Area (excluding circulation)				10.6 m ²

Waste Collection Summary

A private contractor shall be engaged for the collection of waste from the site. Collections shall be undertaken along the rear ROW by the 6.4 metre mini rear-lift collection vehicle.



1.1 The Proposed Development

The site of the proposed mixed use development is located at 7-15 Horne Street, Elsternwick.

The proposal involves the construction of a multi-storey mixed use building plus two basement levels of car parking. Relevant to the Waste Management Plan, the development comprises:

- 43 residential apartments, including:
 - 5 x one-bedroom apartments;
 - 33 x two-bedroom apartments; and
 - 5 x three-bedroom apartments.
- Two ground floor retail tenancies with a combined floor area of 280 square metres.

At the time of the preparation of this Waste Management Plan, the Architectural Plans show separate residential and commercial bin rooms on ground floor, located to the west of the lift core, with direct access to the widened rear ROW.

Refer to Appendix A for a copy of the Architectural Plans reviewed as part of this assessment.

1.2 Purpose

This Waste Management Plan has been prepared to accompany the Section 87A Application.

1.3 Applicable Standards and References

Relevant guidelines and publications considered as part of the preparation of this Waste Management Plan include:

- Sustainability Victoria Better Practice Guide for Waste Management and Recycling in Multi-Unit Developments (2018).
- NSW EPA Bin Trim: Waste solutions for a sustainable business (2017).
- Environment Protection (Residential Noise) Regulations 2008.

1.4 Limitations

At the time of preparation of this Waste Management Plan, the waste generation rates and number of waste streams adopted are reflective of the currently available guidelines, in particular, Sustainability Victoria's 'Better Practice Guide for Waste Management and Recycling in Multi-Unit Developments'.

Waste management arrangements during the construction and fitout stages of the development, and on-going operation and monitoring of the waste management arrangements for the development following the occupation of the development are outside the scope of this Waste Management Plan.



2.1 Residential Garbage Generation

Glen Eira City Council specifies the waste generation rates to be adopted for residential dwellings. These rates have been adopted and are outlined below:

One-bedroom apartment: 80 L/apartment/week
 Two-bedroom apartment: 120 L/apartment/week
 Three-bedroom apartment: 120 L/apartment/week

Applying the above general garbage generation rates, the general garbage generation estimate for the residential component of the development is outlined in Table 2.1 below.

Table 2.1: Residential General Garbage Generation Estimate

Waste Source	No. Apartments	General Garbage Generation Rate	General Garbage Generation
One-bedroom apartment	5	80 L/apartment/week	400 L/week
Two-bedroom apartment	33	120 L/apartment/week	3,960 L/week
Three-bedroom apartment	5	120 L/apartment/week	600 L/week
Total Reside	4,960 L/week		

2.2 Residential Food Organics Generation

Sustainability Victoria estimates that food organics equates to approximately 35% of the garbage generation estimate for residential dwellings.

Table 2.2 applies this percentage to the general garbage generation estimate outlined in Table 2.1.

Table 2.2: Residential Food Organics Generation Estimate

Food Organics Generation Rate	Food Organics Generation	
35% of 4,960 L/Week	1,736 L/week	



2.3 Residential Commingled Recycling Generation

Applying a similar approach to our assessment of the development's recycling generation, the commingled recycling generation rates for residential dwellings specified by Glen Eira City Council have been adopted, as outlined below:

One-bedroom apartment: 80 L/apartment/week
Two-bedroom apartment: 120 L/apartment/week
Two-bedroom apartment: 120 L/apartment/week

Applying the above commingled recycling generation rates, the commingled recycling generation estimate for the residential component of the development is outlined in Table 2.3 below.

Table 2.3: Residential Commingled Recycling Generation Estimate

Waste Source	No. Apartments	Commingled Recycling Generation Rate	Commingled Recycling Generation
One-bedroom apartment	5	80 L/apartment/week	400 L/week
Two-bedroom apartment	33	120 L/apartment/week	3,960 L/week
Three-bedroom apartment 5		120 L/apartment/week	600 L/week
Total Residentia	4,960 L/week		

2.4 Residential Glass Recycling Generation

At this stage, the percentage of glass recycling within the commingled recycling stream is unknown. Adopting a conservative approach, it is estimated that glass recycling equates to approximately 30% of the commingled recycling generation estimate for residential dwellings.

Table 2.4 applies this percentage to the commingled recycling generation estimate outlined in Table 2.3.

Table 2.4: Residential Glass Recycling Generation Estimate

Glass Recycling Generation Rate	Glass Recycling Generation
30% of 4,960 L/Week	1,488 L/week



2.5 Residential Waste Stream Separation Summary

Table 2.5 below outlines the anticipated generation estimates based on the above waste stream separation percentages.

Table 2.5: Residential Waste Generation Estimate – Waste Stream Diversion

General Garbage	Commingled Recycling	Food Organics	Glass Recycling
3,224 L/week	4,960 L/week	1,736 L/week	1,488 L/week

NOTE: Given the uncertainty in the percentage of glass recycling within the commingled recycling generation stream, the commingled recycling generation estimate for the residential dwellings has remained the same as if glass recycling was not removed from the commingled recycling stream.



3.1 Commercial Waste Generation

At the time of preparation of this Waste Management Plan, Glen Eira City Council has no published waste generation rates for commercial uses. As such, the commercial garbage and recycling generation rates provided within Sustainability Victoria's 'Better Practice Guide for Waste Management and Recycling in Multi-Unit Developments' are considered appropriate.

Given that the nature of the proposed ground floor retail uses is unknown at this stage, the garbage and recycling generation rates for 'Café' have been adopted to allow for flexibility in the future use of the proposed retail tenancies, as outlined below:

- Garbage generation rate:
 - Café: 300 L/100m² Floor Area/Day (adopted for the retail tenancies; assumed 7-day operation)
- Recycling generation rate:
 - Café: 200 L/100m² Floor Area/Day (adopted for the retail tenancies; assumed 7-day operation)

Applying the above garbage and recycling generation rates, the garbage and recycling estimates for the commercial component of the development are outlined in Table 3.1 below.

Table 3.1: Commercial Garbage and Recycling Generation Estimates

Waste Source	Floor Area	Garbage Generation Rate	Garbage Generation	Recycling Generation Rate	Recycling Generation
Retail Tenancies (assessed as cafés)	280 m²	300 L/100m²/day	5,880 L/week	200 L/100m²/day	5,880 L/week

3.2 Commercial Waste Stream Separation

The various waste streams and diversion targets for the commercial component of the development are shown in Figure 3.1. The source diversion targets have been formulated based on figures within the NSW EPA – Bin Trim: Waste solutions for a sustainable business, facts sheets.



Contents of a typical waste bin in a café or restaurant Food waste Paper and cardboard 18% Other (wood, textiles, steel and residual waste) 12% Co-mingled/mixed recycling

Figure 3.1: Reducing Business Waste – Cafes and restaurants

Source: NSW EPA - Bin Trim: Waste solutions for a sustainable business

Plastic wrap, bags and plastic containers

It is noted that the co-mingled/mixed recycling percentage has been adopted for glass recycling as there was no amount specified, whilst the plastic wrap, bags and plastic containers combined with paper and cardboard percentages have been adopted for the overall commingled recycling percentage.

Typical waste profile of a cafe or restaurant (% weight of waste generated)2

Based on the waste composition set out above, the waste generation volumes for each waste stream are listed in Table 3.2 below.

Table 3.2: Commercial Waste Generation Estimates - Waste Stream Diversion

General Garbage	Commingled Recycling	Food Organics	Glass Recycling
1,176 L/week	2,156 L/week	6,076 L/week	392 L/week



4.1 System for Managing Waste

- General Garbage: for collection purposes, garbage shall be stored within garbage collection bins;
- Food Organics: for collection purposes, food organics shall be placed within food organics collection bins;
- Commingled Recycling: for collection purposes, commingled recyclables shall be placed into commingled recycling collection bins (PET, aluminium, steel, HDPE, paper, newspapers, magazines and flattened cardboard);
- Glass Recycling: for collection purposes, glass recyclables shall be placed within glass recycling collection bins.
- Green Waste: it is proposed that all common area landscaping will be managed by the Building Manager via a landscaping contractor, who will be responsible for the removal and transportation of green waste off-site;
- Hard Waste: hard waste shall be stored within a nominated location within each bin room. Hard waste shall be collected by a private contractor on an as-required basis; and
- E-Waste: it is understood that e-waste has been banned from landfill. As such, a portion of the areas dedicated for the storage of hard waste within each bin room shall be dedicated for the storage of e-waste. E-waste shall be collected by a private contractor on an as-required basis.

4.2 Waste Storage Facilities

The proposed waste management system consists of the following components:

- Waste receptacles for general garbage, commingled recycling, food organics and glass recycling within the retail tenancies.
- Waste receptacles for general garbage, commingled recycling, food organics and glass recycling within each apartment;
- Separate residential and commercial bin rooms on ground floor, accommodating the development's collection bins and hard waste / e-waste storage areas; and
- A twin chute system for the residential component of the development, with general garbage and commingled recycling intakes on each apartment level and outlets into the residential bin room

Based on the current site layout, mechanical bin transfer equipment is not expected to be required, subject to the appointed waste collection contractor conducting a Safe Work Method Statement Assessment. Should additional bin transfer equipment be deemed necessary, the appointed waste collection contractor can liaise with the Owners Corporation to arrange for necessary equipment and storage arrangements.

It is recommended that the following considerations be made for the residential and commercial bin rooms:

General Requirements

- The bin rooms must comply with Building Code of Australia (BCA) and all relevant Australian Standards;
- The residential chute system, and associated openings on each floor, must be designed to achieve minimum fire rating



- requirements of the BCA and/or Building Surveyor, and fitted with fire sprinklers and any other safety devices as required by the manufacturer, or certifier of the system;
- The bin rooms must allow storage of all waste bins on site at all times;
- The bin rooms must allow easy access for users of the bins;
- The bin rooms must allow easy, direct and convenient transfer of bins to the collection point;
- Artificial light shall be provided where necessary outside the bin rooms to enable occupiers of the site to dispose of waste safely and appropriately at all times; and
- The path for transferring the bins between the bin rooms and the collection point must be of adequate width, free of lips and other obstacles, smooth and without steps.

Space and Facilities Requirements

- The bin rooms must be appropriately sized to accommodate all waste arising on the premises together with any associated equipment for handling the generated waste. The areas designated for bin storage are based on the number of bins and the physical dimensions of the bins. The number of bins and bin sizes required for the development are outlined in Section 5;
- The bin rooms must be maintained to ensure that the aesthetics of the development are not compromised;
- The detailed design of the proposed chute system must be appropriately designed and documented by a reputable chute manufacturer (note: chutes are proprietary items) to the manufacturer's specifications and designed in accordance with relevant Australian Standards. The selection of chute system will be undertaken during the detailed design stage of the project. Refer to Appendix B for further details. The height clearance allowed for within the current architectural design for the residential bin room meets the minimum height clearance required:
- The chute supplier shall supply and fix safe-operating instructions to each intake-door and place a warning sign on each chute. For improved safety, each chute outlet shall be shrouded with a suitable rubber skirt and designed to utilise the effect of falling waste into the associated bin (and to stop dispersion of debris). Access to each chute outlet shall be restricted to trained personnel only to prevent unauthorised access to the chute equipment and bins; and
- Each bin shall be accessible and manoeuvrable in and out of each bin room with minimum handling of other bins.

Ventilation and Bin Washing Requirements

- The bin rooms must be ventilated in accordance with the requirements of the Building Code of Australia and AS1668.2;
- For chute ventilation, a fan with riser to a rooftop exhaust, designed and documented by a Services Engineer must be utilised;
- A water-flushing nozzle with accessible water cock must be provided at the head of each chute;
- Ventilation openings must be protected against flies and vermin;
- Doors must be tight fitting; and



 The floor of each bin room should be graded to a drain (connected to the sewer) and provided with a hosecock and hose for washing bins. Alternatively, a private contractor can be engaged to wash bins on a regular basis, transporting all wastewater off-site.

4.3 Bin Colour and Signage Requirements

Bin Colour

- All bins shall be provided by a private supplier. The below bin colours are specified by Australian Standard AS4123.7 2006, however due to the private nature of the collection, these are only recommendations and are not mandatory:
 - Garbage bins with a dark green or black body and red lid;
 - Commingled recycling bins with a dark green or black body and yellow lid;
 - Food organics bins with a dark green or black body and lime green or burgundy lid; and
 - Glass recycling bins with a dark green or black body and purple lid

<u>NOTE:</u> Private collection contractors often supply their own bins for collection.

Signage

The chute intakes and all bins will be provided with signs showing correct disposal of each waste stream.

The typical Sustainability Victoria signage is shown in Figure 4.1.

Figure 4.1: Sustainability Victoria Signage



Source: Sustainability Victoria



5.1 Residential Bin Sizes

Based on the residential waste generation estimates calculated in Section 2, it is considered that the use of 240L and 1100L bins will be appropriate for the residential component of the development.

The bins that shall be utilised for the residential component of the development are detailed in Table 5.1.

Table 5.1: Residential Bin Details

Bin Size (L)	Height (mm)	Width (mm)	Depth (mm)	Area (m²)
240	1060	585	730	0.4
1100	1330	1240	1070	1.3

Based on Sulo Bin Dimensions

5.2 Residential Interim Bin Schedule

Until the private contractor engaged offers dedicated food organics and glass recycling collection services, in the interim waste associated with residential component of the development shall only be separated into general garbage and commingled recycling.

Table 5.2 summarises the proposed interim residential bin schedule.

Table 5.2: Interim Residential Bin Schedule

Waste Stream	Bin Quantity	Bin Size	Collection Frequency	Minimum Required Bin Storage Area
General Garbage	3	1100 L	Twice weekly	2.6 m ²
Commingled Recycling	3	1100 L	Twice weekly	2.6 m ²
Hard Waste 8 E-Waste 2.0 m ² storage area As required			2.0 m ²	
Net Minimum Required Bin Storage Area (excluding circulation)				7.2 m ²

The above residential interim bin schedule will provide capacities of:

- General garbage: 6,600 L/week; and
- Commingled recycling: 6,600 L/week.

These capacities therefore provide sufficient allowance for the residential waste generation estimates calculated in Section 2.

The area allocated for residential bin storage shown on the architectural plans is sufficient to store the required number of bins outlined within the above interim residential bin schedule.



5.3 Residential Ultimate Bin Schedule

Once the private contractor engaged offers dedicated food organics and glass recycling collection services, waste associated with residential component of the development shall be separated into general garbage, commingled recycling, food organics and glass recycling.

Table 5.3 summarises the proposed ultimate residential bin schedule.

Table 5.3: Ultimate Residential Bin Schedule

Waste Stream	Bin Quantity	Bin Size	Collection Frequency	Minimum Required Bin Storage Area
General Garbage	2	1100 L	Twice weekly	2.6 m ²
Commingled Recycling	3	1100 L	Twice weekly	3.9 m ²
Food Organics	4	240 L	Twice weekly	1.6 m ²
Glass Recycling	4	240 L	Twice weekly	1.6 m ²
Hard Waste & E-Waste	2.0 m ² storage area As require			2.0 m ²
Net Minimum Required Bin Storage Area (excluding circulation)				11.7 m²

The above ultimate residential bin schedule will provide capacities of:

- General garbage: 4,400 L/week;
- Commingled recycling: 6,600 L/week;
- Food organics: 1,920 L/week; and
- Glass recycling: 1,920 L/week.

These capacities therefore provide sufficient allowance for the residential waste generation estimates calculated in Section 2.

The area allocated for residential bin storage shown on the architectural plans is sufficient to store the required number of bins outlined within the above residential ultimate bin schedule.



6.1 Commercial Bin Sizes

Based on the commercial waste generation estimates calculated in Section 3, it is considered that the use of 240L, 660L and 1100L bins will be appropriate for the commercial component of the development.

The bins that shall be utilised for the commercial component of the development are detailed in Table 6.1.

Table 6.1: Commercial Bin Details

Bin Size (L)	Height (mm)	Width (mm)	Depth (mm)	Area (m²)
240	1060	585	730	0.4
660	1200	1260	780	1.0
1100	1330	1240	1070	1.3

Based on Sulo Bin Dimensions

6.2 Commercial Interim Bin Schedule

Until the private contractor engaged offers dedicated food organics and glass recycling collection services, in the interim waste associated with commercial component of the development shall only be separated into general garbage and commingled recycling.

Table 6.2 summarises the proposed interim commercial bin schedule.

Table 6.2: Interim Commercial Bin Schedule

Waste Stream	Bin Quantity	Bin Size	Collection Frequency	Minimum Required Bin Storage Area
General Garbage	4	1100 L	Twice weekly	5.2 m ²
Commingled Recycling	2	660 L	Twice weekly	2.0 m ²
Hard Waste & E-Waste	2.0 m ² storage area		As required	2.0 m ²
Net Minimum Required Bin Storage Area (excluding circulation)				9.2 m ²

The above commercial interim bin schedule will provide capacities of:

- General garbage: 8,800 L/week; and
- Commingled recycling: 2,640 L/week.

These capacities therefore provide sufficient allowance for the commercial waste generation estimates calculated in Section 3.

The area allocated for commercial bin storage shown on the architectural plans is sufficient to store the required number of bins outlined within the above interim commercial bin schedule.



6.3 Commercial Ultimate Bin Schedule

Once the private contractor engaged offers dedicated food organics and glass recycling collection services, waste associated with commercial component of the development shall be separated into general garbage, commingled recycling, food organics and glass recycling.

Table 6.3 summarises the proposed commercial ultimate bin schedule.

Table 6.3: Ultimate Commercial Bin Schedule

Waste Stream	Bin Quantity	Bin Size	Collection Frequency	Minimum Required Bin Storage Area
General Garbage	1	1100 L	Twice weekly	1.3 m²
Commingled Recycling	1	1100 L	Twice weekly	1.3 m ²
Food Organics	13	240 L	Twice weekly	5.2 m ²
Glass Recycling	2	240 L	Weekly	0.8 m ²
Hard Waste & E-Waste	2.0 m² storage area As requ			2.0 m²
Net Minimum Required Bin Storage Area (excluding circulation)				10.6 m ²

The above ultimate commercial bin schedule will provide capacities of:

General garbage: 2,200 L/week;

Commingled recycling: 2,200 L/week;

Food organics: 6,240 L/week; and

Glass recycling: 480 L/week.

These capacities therefore provide sufficient allowance for the commercial waste generation estimates calculated in Section 3.

The area allocated for commercial bin storage shown on the architectural plans is sufficient to store the required number of bins outlined within the above commercial ultimate bin schedule.



7.1 Collection Arrangements – Private Collection

Waste shall be collected along the southern ROW by a private waste contractor, using mini rear loaders.

The mini rear loaders are 6.4 metres long, 2.1 metres high and require an operational height clearance of 2.5 metres at the collection point when collecting 1100L bins.

A swept path assessment has been prepared using Autodesk Vehicle Tracking software, demonstrating that the nominated waste collection vehicle can access the southern ROW, undertaken waste collection adjacent to the bin room, and exit the ROW onto the surrounding road network in a forward direction (refer to Appendix C for further details).

The waste collection contractor, appointed by the Building Manager, will be responsible for the transfer of bins between the bin rooms and the collection vehicle, returning the bins to their dedicated bin room immediately after collection is complete. The contractor will also be responsible for the development of a Safe Work Method Statement (SWMS) to ensure safety is considered for every aspect of the collection process.

Hard waste and e-waste shall be collected on an as-required basis by a private contractor.

NOTES:

Bins shall not be left on southern ROW at any time. Following waste collection activities, the bins shall be returned to their dedicated bin room as soon as possible.

The loaded waste collection vehicle shall be fully secured with contained loads to prevent spillage and leak of dust or odour.

7.2 Waste Collection Time

Due to the site's proximity to residential properties, waste collection from the subject site shall only occur during daytime hours, as stipulated in the *Environment Protection* (Residential Noise) Regulations 2008.

All waste collections shall occur during the following time period:

- Between 7:00am and 8:00pm, Monday to Friday; and
- Between 9:00am and 8:00pm, Weekends and Public Holidays.

Further to above, waste collection shall be undertaken outside of peak AM and PM periods in order to minimise disruption to traffic along the rear ROW and vehicles accessing the on-site car parking (i.e. between 10:00am and 3:00pm).



8.1 Waste Disposal and Sorting Responsibilities

Residential Apartments

General garbage shall be placed within tied bags prior to disposal into the garbage chute intakes located on each apartment level.

Recyclables shall be uncapped, drained and rinsed prior to disposal into the recycling chute intakes located on each apartment level. Bagged commingled recycling is not permitted.

Food organics shall be placed directly into the food organics collection bins located within the residential bin room. Bagged food organics is not permitted unless the bags are made from an approved compostable material.

Glass recyclables shall be placed directly into the glass recycling collection bins located within the residential bin room. Bagged glass recycling is not permitted.

Hard waste and e-waste shall be stored within the nominated location within the residential bin room, with collections to be undertaken by a private contractor on an as-required basis.

Retail Tenancies

Appointed staff of the retail tenancies will be responsible for the transfer of waste from the retail tenancies to the collection bins located within the commercial bin room.

General garbage shall be placed within tied bags prior to disposal into the general garbage collection bins.

Recyclables shall be uncapped, drained and rinsed prior to disposal into the commingled recycling collection bins. Bagged commingled recycling is not permitted.

Food organics shall be placed directly into the food organics collection bins. Bagged food organics is not permitted unless the bags are made from an approved compostable material.

Glass recyclables shall be placed directly into the glass recycling collection bins. Bagged glass recycling is not permitted.

Hard waste and e-waste shall be stored within the nominated location within the commercial bin room, with collections to be undertaken by a private contractor on an as-required basis.



8.2 Building Manager Responsibilities

The Building Manager shall be responsible for the following:

- Ongoing management of the waste system including the maintenance of bin rooms, chute system and associated equipment and components, to the satisfaction of users and the relevant authority, and in accordance with relevant manufacturer specifications. When required, the Building Manager shall engage an appropriate contractor to conduct services, replacements or upgrades;
- Engage and manage the waste collection contractor;
- Developing and implementing adequate safe operating procedures (including the preparation of Safe Work Method Statements);
- Securing the bin rooms and labelling/numbering the bins according to the property address to prevent theft and vandalism;
- Removal of litter from all public areas on a regular basis;
- Publish and distribute information or 'house rules' to ensure that building users are familiar about the waste management system; and
- Inform users that bagged recycling (commingled and glass) is not permitted.

8.3 Retail Tenant Responsibilities

The retail tenants shall be responsible for the following:

- Ensure that any container used for the storage of commercial waste is:
 - Constructed of approved impervious materials so as to prevent the escape by leakage of the contents;
 - Thoroughly cleaned at regular intervals;
 - Kept at all times in good order and in a clean and sanitary condition; and
 - Constructed to be water-tight, fly and vermin proof.
- Regularly transfer waste from local receptacles to the collection bins within the commercial bin room to prevent overflowing of bins and littering;
- Monitor user behaviour and if littering is observed, arrange for additional bins / infrastructure to be provided to minimise littering;
- Developing and implementing adequate safe operating procedures (including the preparation of Safe Work Method Statements);
- Removal of litter from all public areas on a regular basis;
- Preventing overfilled bins by keeping lids closed and ensuring bungs are leak free;
- Inform staff and users that bagged recycling (commingled and glass) is not permitted; and
- Ensure that bins provided for use at the designated site are not removed.



8.4 Arrangements for Bins / Equipment Labelling

The appointed waste collection contractor, in conjunction with the Building Manager, shall publish / distribute rules / information / educational material to:

- Inform users about the waste management system.
- Improve facility management results, to reduce equipment damage, reduce littering, and to achieve better cleanliness.
- Advise users to sort and recycle waste with care to reduce contamination of recyclables.

8.5 Waste Management Plan Revisions

From time to time, due to changes in legislative requirements, changes in the development's needs and/or waste patterns (such as waste composition, volume, or distribution), or to address unforeseen operational issues, the Building Manager shall be responsible for coordinating the necessary Waste Management Plan revisions, including (on an as-required basis):

- A waste audit and new waste management strategy.
- Revision of the waste system (bin size / quantity / waste streams / collection frequency / update of equipment).
- Revision of the services provided by the waste collection contractor(s).
- Re-education of users.
- Any necessary statutory / regulatory requirements / approvals.



9.1 Recycling Victoria: A new economy

The Victorian Government's Recycling Victoria: A New Economy was released in 2020 and sets out strategies to reduce the amount of waste generated in Victoria and increase the amount of materials for recycling and reprocessing to reduce damage to the environment caused by waste.

Ongoing education and dedicated ongoing management services are critical factors in encouraging users to continue to use the services and systems as intended. The future Occupiers of the development shall promote the above strategy where practicable and encourage users to participate in minimising the impact of waste on the environment. In particular, consideration should be made to the circular economy as shown in Figure 9.1 below.

A circular economy continually seeks to reduce the environmental impacts of production and consumption, while enabling economic growth through more productive use of natural resources.

Energy recovery

Landfill MANAGE

MAKE

Energy recovery

State Alexandr

State

Figure 9.1: The Circular Economy

Source: Recycling Victoria: A new economy

Establishment of waste reduction and recycling targets, including conducting periodic waste audits, keeping records of waste streams, and monitoring of the quantity of recyclables found in landfill-bound bins. The results of such audits shall be shared with users to encourage further reductions in waste where possible.



10.1 Contact Information

Table 10.1 below includes a complimentary listing of contractors and equipment suppliers. The Project Principal shall not be obligated to procure goods / services from these companies. Ratio Consultants does not warrant or make representations for the goods / services provided by these contractors and suppliers.

Table 10.1: Contractors and Supplier Details

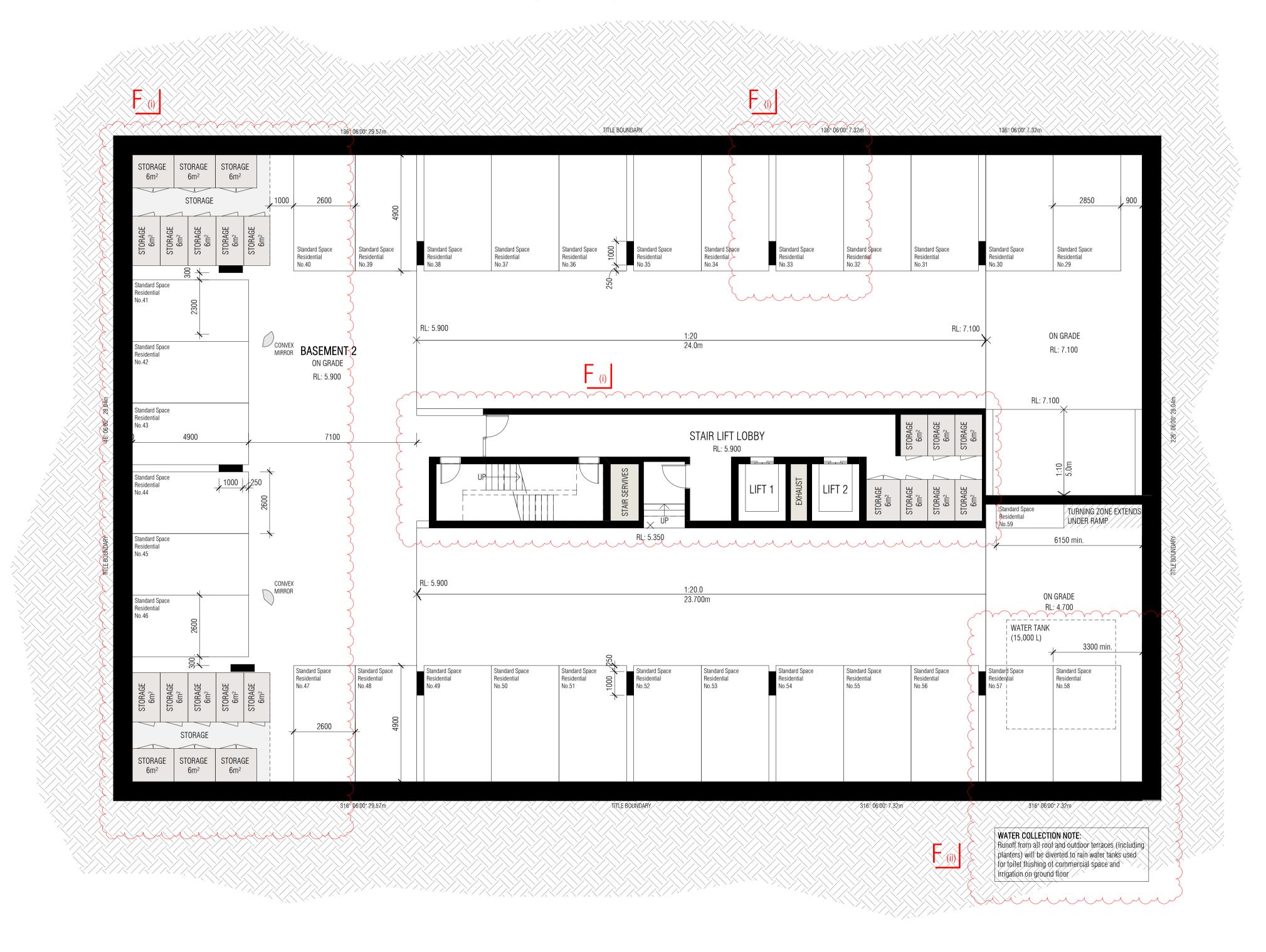
Service	Contractor / Supplier	Phone	Website
	Cleanaway	13 13 39	www.cleanaway.com.au
	CSC Waste & Recycling	1300 499 927	www.cscwaste.com.au
	iDump	1300 443 867	www.idump.com.au
	JJ Richards	03 9794 5722	www.jjrichards.com.au
Private Waste Collection	Kartaway	1300 362 362	www.kartaway.com.au
Contractor	Premier Waste	1300 219 001	www.premierwaste.com.au
	SUEZ	13 13 35	www.suez.com.au/en-AU
	Sulo Australia	1300 364 388	www.sulo.com.au
	Veolia	132 955	www.veolia.com/anz
	Wastewise Environmental	1300 550 408	www.wastewise.com.au
	Elephants Foot	1300 435 374	www.elephantsfoot.com.au
Chute Supplier	ASI JD MacDonald	1800 023 441	www.jdmacdonald.com.au
	Wastech	1800 465 465	www.wastech.com.au
	The Bin Butlers	1300 788 123	www.thebinbutlers.com.au
	Calcorp Services	1800 225 267	www.calcorpservices.com.au
Bin Washing	Kerbside Clean-A- Bin	03 9830 7381	www.kerbsidecleanabin- srp.com.au
	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au
	Eco-Safe Technologies	1300 135 039	www.eco-safe.com.au
Odour Control	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au



Appendix A: Plans Assessed



HORNE STREET



RE'	REVISION DESCRIPTION		
F 22.12.2020 VOLUNTARY AMENDMENTS		VOLUNTARY AMENDMENTS	
		i) REVISED BASEMENT LAYOUT FOLLOWING CHANGE IN BUILDING USE	

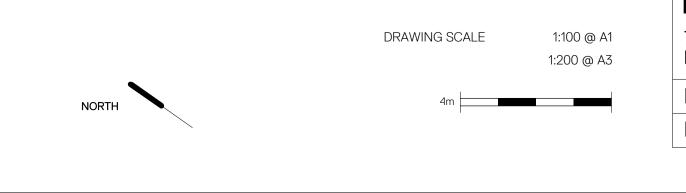
NOT FOR CONSTRUCTI	ON
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	01.11.2018	ISSUED FOR TOWN PLANNING
Α	03.12.2018	AMENDMENTS FOLLOWING COUNCIL RFI's DATED 29.11.2018
В	21.02.2019	FOR DISCUSSION ONLY AMENDMENTS
С	17.12.2019	CONDITION 1 AMENDMENTS
D	24.02.2020	AMENDMENTS FOLLOWING COUCNIL LETTER DATED 17 FEB 2020
Е	23.02.2020	AMENDMENTS FOLLOWING COICNIL RFI
F	22.12.2020	VOLUNTARY AMENDMENTS

MIXED USE PROPOSAL
TOWN PLANNING

CBG ARCHITECTS & INTERIOR DESIGNERS
33 Tope Street, South Melbourne VIC 3205
P: +61 3 9525 3855

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7 - 15 HORNE STREET ELSTERNWICK, VIC TP098 - F PRELIMINARY ISSUE BASEMENT 2

COLOUR LEGEND

Apartment - 1 BED
Apartment - 2 BED
Apartment - 3 BED
Services
Retail / Commercial

Communal

Balcony / Terrace Area

PARKING NOTES

The basement design, including all levels, ramp grades, transitions, headroom clearances, and dimensions of carparks to be in accordance to AS/NZ 2980.1-2004, and to the satisfaction of the responsible authority. Refer to traffic report prepared by 'Ratio Traffic' for further details.

- All mechanical venting of basement required to occur internally within site
- Car spaces to be typically 2800 x 4900 unless otherwise specified
- Columns to be located within a distance of 250 to 1250mm from aisle end of parking space unless specified otherwise
- 'Ned Kelly' staggered height wall mounted bike storage (or similar) @ 500mm centers
- CO2 sensors will be installed throughout the two basement carparking areas and connected to mechanical exhaust equipment to lower operational time while maintaining good air quality

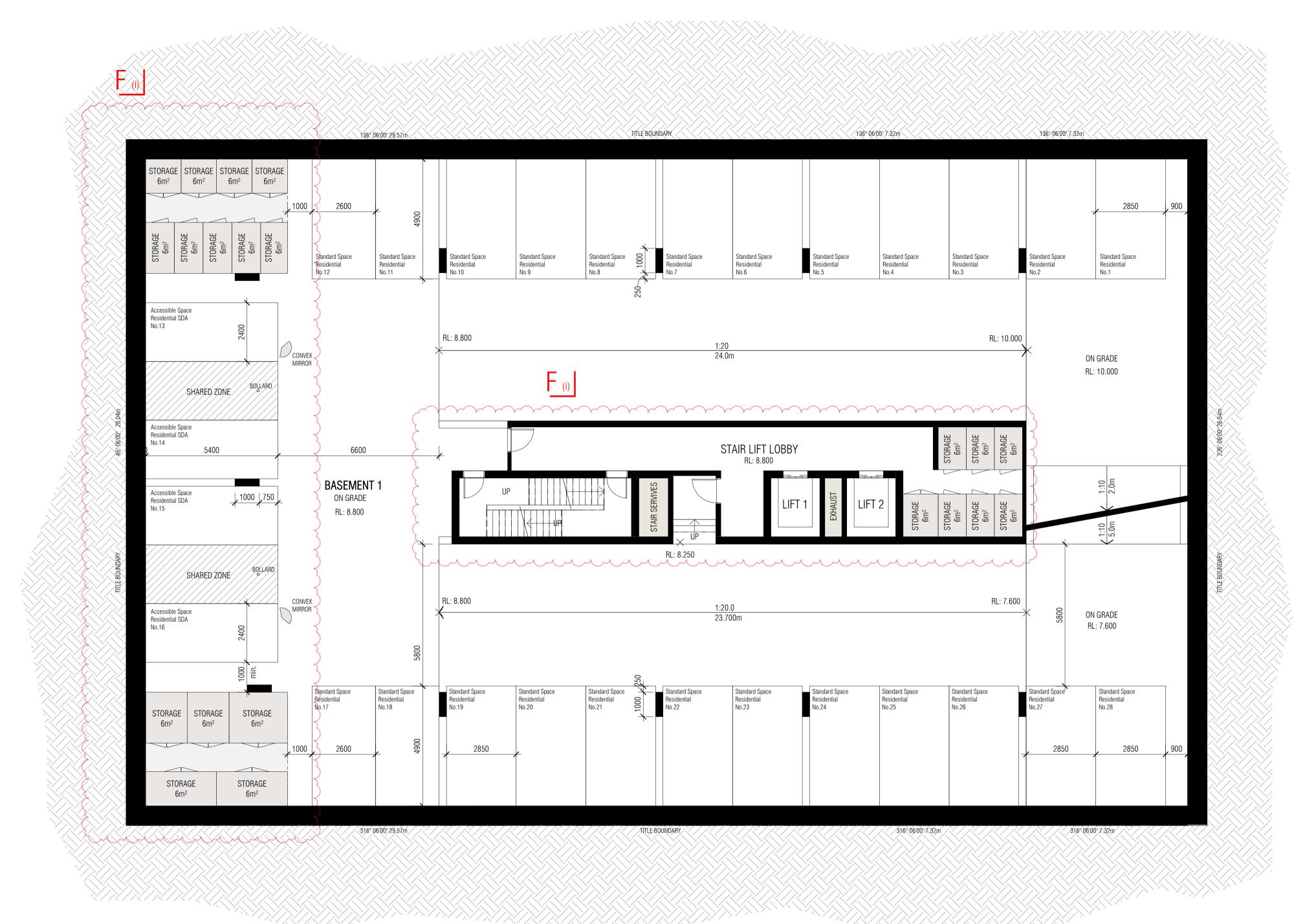
PARKING ALLOCATION

On-site parking allocation to include

- Not less than one car space for each one or two

 hadroom apartment.
- bedroom apartment
 Not less than two car so
- Not less than two car spaces for each three or more bedroom apartment
- Not Less than 1.5 car spaces to each 100sqm of leasable floor area for shops and food and drink
- premises
- Not less than 2.0 car spaces to each 100sqm of net floor area for office

HORNE STREET

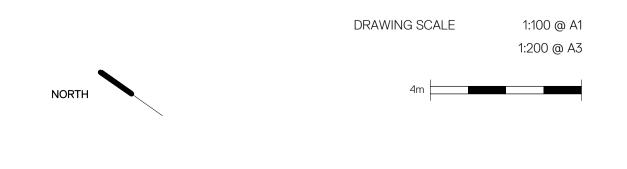


	REVISION DESCRIPTION		
F 22.12.2020 VOLUNTARY AMENDMENTS			
	i) REVISED BASEMENT LAYOUT FOLLOWING CHANGE IN BUILDING USE		i) REVISED BASEMENT LAYOUT FOLLOWING CHANGE IN BUILDING USE

	01.11.2018	ISSUED FOR TOWN PLANNING
Α	03.12.2018	AMENDMENTS FOLLOWING COUNCIL RFI's DATED 29.11.2018
В	21.02.2019	FOR DISCUSSION ONLY AMENDMENTS
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E	23.02.2020	AMENDMENTS FOLLOWING COICNIL RFI
F	22.12.2020	VOLUNTARY AMENDMENTS

NOT FOR CONSTRUCTION

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7 - 15 HORNE STREET ELSTERNWICK, VIC TP099 - F PRELIMINARY ISSUE BASEMENT 1

COLOUR LEGEND

Apartment - 1 BED
Apartment - 2 BED
Apartment - 3 BED
Services
Retail / Commercial

Communal

Balcony / Terrace Area

PARKING NOTES

The basement design, including all levels, ramp grades, transitions, headroom clearances, and dimensions of carparks to be in accordance to AS/NZ 2980.1-2004, and to the satisfaction of the responsible authority. Refer to traffic report prepared by 'Ratio Traffic' for further details.

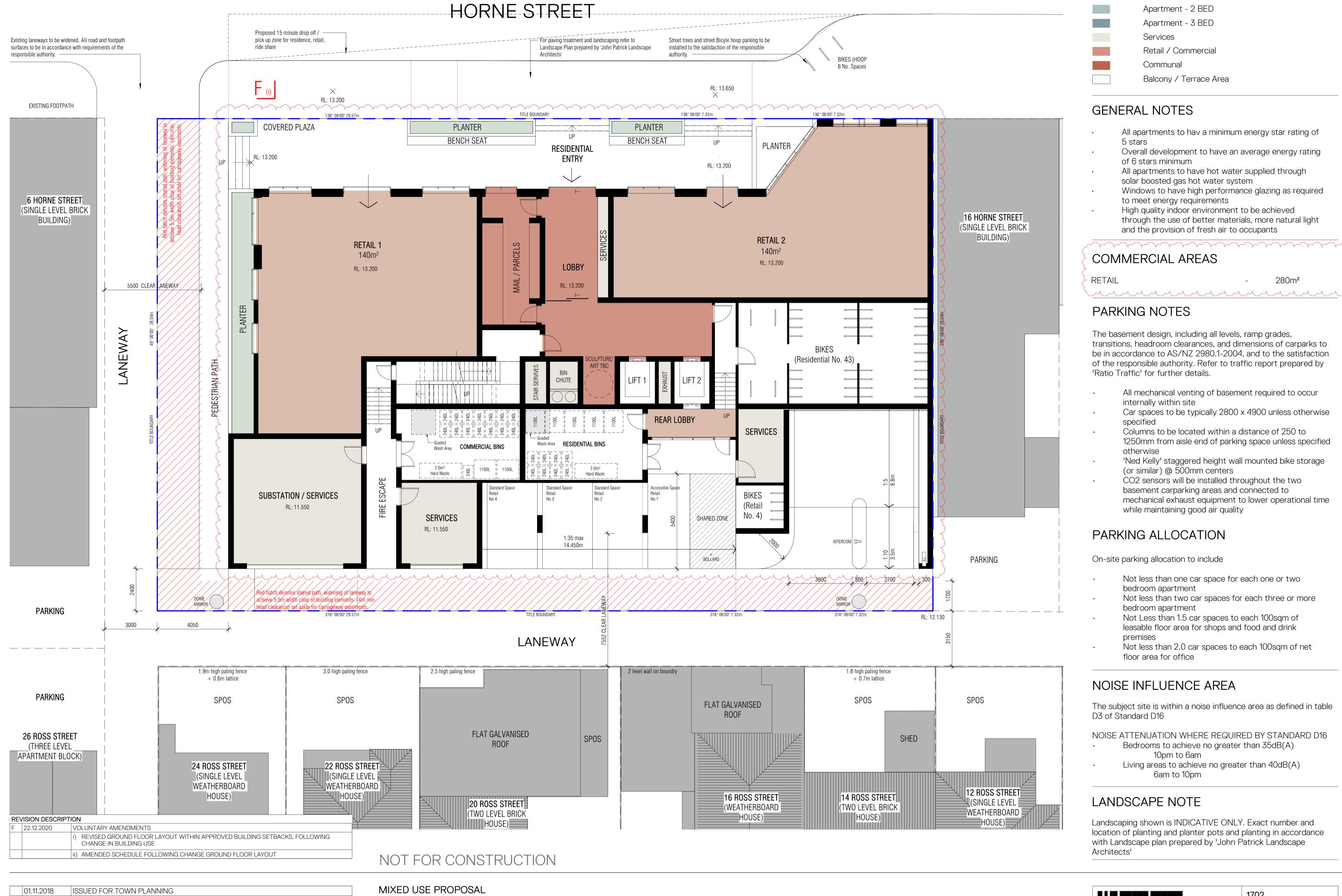
- All mechanical venting of basement required to occur internally within site
- Car spaces to be typically 2800 x 4900 unless otherwise specified
- Columns to be located within a distance of 250 to 1250mm from aisle end of parking space unless specified otherwise
- 'Ned Kelly' staggered height wall mounted bike storage (or similar) @ 500mm centers
- CO2 sensors will be installed throughout the two basement carparking areas and connected to mechanical exhaust equipment to lower operational time while maintaining good air quality

PARKING ALLOCATION

On-site parking allocation to include

- Not less than one car space for each one or two

 hodroom apartment.
- bedroom apartment
- Not less than two car spaces for each three or more bedroom apartment
- Not Less than 1.5 car spaces to each 100sqm of leasable floor area for shops and food and drink premises
- Not less than 2.0 car spaces to each 100sqm of net floor area for office



Apartment - 1 BED Apartment - 2 BED

Apartment - 3 BED

Services Retail / Commercial

Communal

Balcony / Terrace Area

GENERAL NOTES

- All apartments to hav a minimum energy star rating of
- Overall development to have an average energy rating
- All apartments to have hot water supplied through solar boosted gas hot water system
- Windows to have high performance glazing as required to meet energy requirements
- High quality indoor environment to be achieved through the use of better materials, more natural light

and the provision of fresh air to occupants

COMMERCIAL AREAS

RETAIL

PARKING NOTES

The basement design, including all levels, ramp grades, transitions, headroom clearances, and dimensions of carparks to be in accordance to AS/NZ 2980.1-2004, and to the satisfaction of the responsible authority. Refer to traffic report prepared by 'Ratio Traffic' for further details.

- All mechanical venting of basement required to occur internally within site
- Car spaces to be typically 2800 x 4900 unless otherwise
- Columns to be located within a distance of 250 to 1250mm from aisle end of parking space unless specified
- 'Ned Kelly' staggered height wall mounted bike storage
- (or similar) @ 500mm centers CO2 sensors will be installed throughout the two
- basement carparking areas and connected to mechanical exhaust equipment to lower operational time while maintaining good air quality

PARKING ALLOCATION

On-site parking allocation to include

- Not less than one car space for each one or two
- bedroom apartment
- Not less than two car spaces for each three or more bedroom apartment
- Not Less than 1.5 car spaces to each 100sqm of leasable floor area for shops and food and drink
- Not less than 2.0 car spaces to each 100sqm of net floor area for office

NOISE INFLUENCE AREA

The subject site is within a noise influence area as defined in table D3 of Standard D16

NOISE ATTENUATION WHERE REQUIRED BY STANDARD D16 Bedrooms to achieve no greater than 35dB(A) 10pm to 6am

Living areas to achieve no greater than 40dB(A) 6am to 10pm

LANDSCAPE NOTE

Landscaping shown is INDICATIVE ONLY. Exact number and location of planting and planter pots and planting in accordance with Landscape plan prepared by 'John Patrick Landscape Architects'

	01.11.2018	ISSUED FOR TOWN PLANNING	
A 03.12.2018 AMENDMENTS FOLLOWING COUNCIL RFI's DATED 29.11.2018		AMENDMENTS FOLLOWING COUNCIL RFI's DATED 29.11.2018	
В	21.02.2019	FOR DISCUSSION ONLY AMENDMENTS	
С	17.12.2019	CONDITION 1 AMENDMENTS	
D	24.02.2020	AMENDMENTS FOLLOWING COUCNIL LETTER DATED 17 FEB 2020	
Е	23.02.2020	AMENDMENTS FOLLOWING COICNIL RFI	
F	22.12.2020	VOLUNTARY AMENDMENTS	

TOWN PLANNING

CBG ARCHITECTS & INTERIOR DESIGNERS 33 Tope Street, South Melbourne VIC 3205 P: +61 3 9525 3855

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	1702
' - 15 HORNE STREET ELSTERNWICK, VIC	TP100 - F
PRELIMINARY ISSUE	
GROUND LEVEL	



Apartment - 1 BED Apartment - 2 BED

Apartment - 3 BED

Services Retail / Commercial

Communal Balcony / Terrace Area

GENERAL NOTES

- All apartments to hav a minimum energy star rating of
- Overall development to have an average energy rating of 6 stars minimum
- All apartments to have hot water supplied through solar boosted gas hot water system
- Windows to have high performance glazing as required to meet energy requirements
- High quality indoor environment to be achieved through the use of better materials, more natural light and the provision of fresh air to occupants

NOISE INFLUENCE AREA

The subject site is within a noise influence area as defined in table D3 of Standard D16

NOISE ATTENUATION WHERE REQUIRED BY STANDARD D16 Bedrooms to achieve no greater than 35dB(A) 10pm to 6am

Living areas to achieve no greater than 40dB(A) 6am to 10pm

APARTMENT DESIGN GUIDELINE NOTES

STORAGE:

APARTMENT 1 BED APARTMENT 2 BED APARTMENT 3 BED

10m³ (min.) 14m³ (min.) 18m³ (min.)

ACCESSIBILITY:

At least 50% of apartments to achieve:

A clear opening width of 850mm at the entrance to the dwelling and main bedroom A clear path with a min. width of 1.2m that connects the

dwelling entrance to the main bedroom and adaptable bathroom

A main bedroom with access to an adaptable bathroom At least 1 bathroom that meets all of the design requirements of the design guidelines

For 'Apartment Design Guide' analysis refer to sheet series A600

MIXED USE PROPOSAL **TOWN PLANNING**

03.12.2018

17.12.2019

D 24.02.2020

23.02.2020

22.12.2020

B 21.02.2019

AMENDMENTS FOLLOWING COUNCIL RFI's DATED 29.11.2018

AMENDMENTS FOLLOWING COUCNIL LETTER DATED 17 FEB 2020

FOR DISCUSSION ONLY AMENDMENTS

AMENDMENTS FOLLOWING COICNIL RFI

CONDITION 1 AMENDMENTS

VOLUNTARY AMENDMENTS

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	1702
7 - 15 HORNE STREET ELSTERNWICK, VIC	TP101 - F
PRELIMINARY ISSUE	
LEVEL 1	

F (iii)



COLOUR LEGEND

Apartment - 1 BED Apartment - 2 BED

Apartment - 3 BED

Services

Retail / Commercial

Communal Balcony / Terrace Area

GENERAL NOTES

- All apartments to hav a minimum energy star rating of
- Overall development to have an average energy rating of 6 stars minimum
- All apartments to have hot water supplied through
- solar boosted gas hot water system Windows to have high performance glazing as required
- to meet energy requirements High quality indoor environment to be achieved
- through the use of better materials, more natural light and the provision of fresh air to occupants

NOISE INFLUENCE AREA

The subject site is within a noise influence area as defined in table D3 of Standard D16

NOISE ATTENUATION WHERE REQUIRED BY STANDARD D16 Bedrooms to achieve no greater than 35dB(A) 10pm to 6am

Living areas to achieve no greater than 40dB(A)

6am to 10pm

APARTMENT DESIGN GUIDELINE NOTES

APARTMENT 1 BED 10m³ (min.) 14m³ (min.) APARTMENT 2 BED 18m³ (min.)

At least 50% of apartments to achieve:

A clear opening width of 850mm at the entrance to the dwelling and main bedroom

A clear path with a min. width of 1.2m that connects the dwelling entrance to the main bedroom and adaptable bathroom

A main bedroom with access to an adaptable bathroom At least 1 bathroom that meets all of the design requirements of the design guidelines

For 'Apartment Design Guide' analysis refer to sheet series A600

03.12.2018

17.12.2019

D 24.02.2020

23.02.2020

22.12.2020

B 21.02.2019

AMENDMENTS FOLLOWING COUNCIL RFI's DATED 29.11.2018

AMENDMENTS FOLLOWING COUCNIL LETTER DATED 17 FEB 2020

FOR DISCUSSION ONLY AMENDMENTS

AMENDMENTS FOLLOWING COICNIL RFI

CONDITION 1 AMENDMENTS

VOLUNTARY AMENDMENTS

TOWN PLANNING

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NORTH

DRAWING SCALE 1:100 @ A1 1:200 @ A3

	1702
7 - 15 HORNE STREET ELSTERNWICK, VIC	TP102 - F
PRELIMINARY ISSUE	
LEVEL 2	



Apartment - 1 BED Apartment - 2 BED

Apartment - 3 BED

Services Retail / Commercial

Communal

Balcony / Terrace Area

GENERAL NOTES

- All apartments to hav a minimum energy star rating of
- Overall development to have an average energy rating of 6 stars minimum
- All apartments to have hot water supplied through solar boosted gas hot water system
- Windows to have high performance glazing as required to meet energy requirements
- High quality indoor environment to be achieved through the use of better materials, more natural light and the provision of fresh air to occupants

NOISE INFLUENCE AREA

The subject site is within a noise influence area as defined in table D3 of Standard D16

NOISE ATTENUATION WHERE REQUIRED BY STANDARD D16 Bedrooms to achieve no greater than 35dB(A) 10pm to 6am

Living areas to achieve no greater than 40dB(A) 6am to 10pm

APARTMENT DESIGN GUIDELINE NOTES

STORAGE: APARTMENT 1 BED

10m³ (min.) 14m³ (min.) APARTMENT 2 BED APARTMENT 3 BED 18m³ (min.)

ACCESSIBILITY:

At least 50% of apartments to achieve:

- A clear opening width of 850mm at the entrance to the dwelling and main bedroom
- A clear path with a min. width of 1.2m that connects the dwelling entrance to the main bedroom and adaptable
- A main bedroom with access to an adaptable bathroom At least 1 bathroom that meets all of the design
- requirements of the design guidelines

For 'Apartment Design Guide' analysis refer to sheet series A600

LANDSCAPE NOTE

Landscaping shown is INDICATIVE ONLY. Exact number and location of planting and planter pots and planting in accordance with Landscape plan prepared by 'John Patrick Landscape Architects'

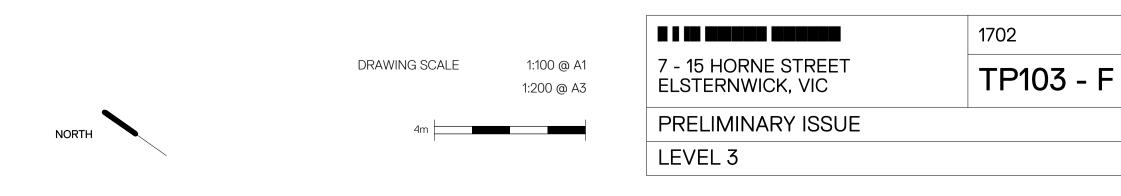
1.11.2018	ISSUED FOR TOWN PLANNING	MIXED USE PRO
3.12.2018	AMENDMENTS FOLLOWING COUNCIL RFI's DATED 29.11.2018	TOWN PLAN
1.02.2019	FOR DISCUSSION ONLY AMENDMENTS	I OWN I LAN

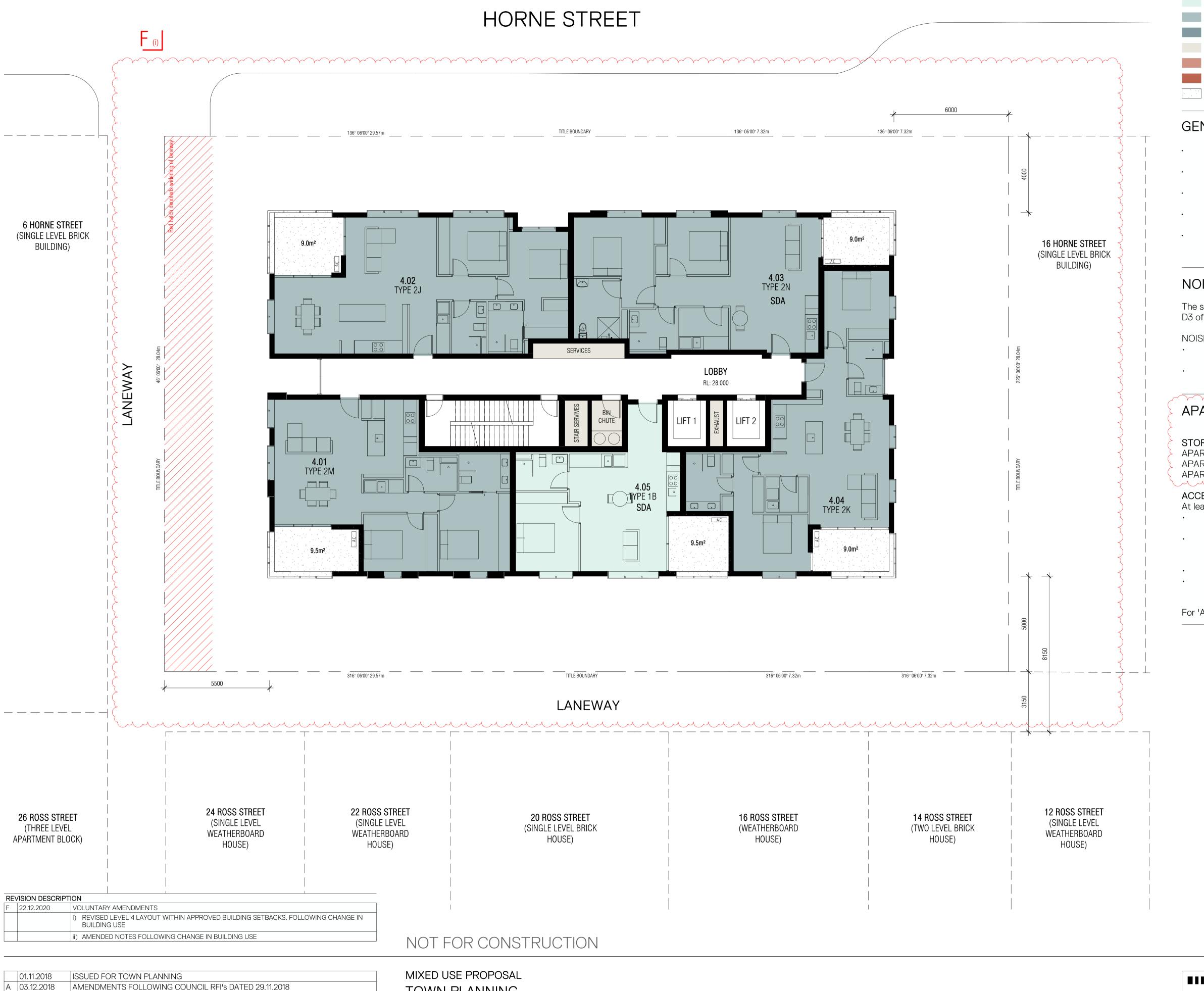
C 17.12.2019 CONDITION 1 AMENDMENTS D 24.02.2020 AMENDMENTS FOLLOWING COUCNIL LETTER DATED 17 FEB 2020 23.02.2020 AMENDMENTS FOLLOWING COICNIL RFI VOLUNTARY AMENDMENTS 22.12.2020

ROPOSAL NNING

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Apartment - 1 BED Apartment - 2 BED

Apartment - 3 BED Services

Retail / Commercial

Communal Balcony / Terrace Area

GENERAL NOTES

- All apartments to hav a minimum energy star rating of
- Overall development to have an average energy rating
- of 6 stars minimum All apartments to have hot water supplied through
- solar boosted gas hot water system
- Windows to have high performance glazing as required to meet energy requirements
- High quality indoor environment to be achieved through the use of better materials, more natural light and the provision of fresh air to occupants

NOISE INFLUENCE AREA

The subject site is within a noise influence area as defined in table D3 of Standard D16

NOISE ATTENUATION WHERE REQUIRED BY STANDARD D16 Bedrooms to achieve no greater than 35dB(A)

10pm to 6am Living areas to achieve no greater than 40dB(A) 6am to 10pm

APARTMENT DESIGN GUIDELINE NOTES

STORAGE:

APARTMENT 1 BED APARTMENT 2 BED APARTMENT 3 BED

14m³ (min.) 18m³ (min.)

10m³ (min.)

ACCESSIBILITY:

At least 50% of apartments to achieve:

- A clear opening width of 850mm at the entrance to the dwelling and main bedroom
- A clear path with a min. width of 1.2m that connects the dwelling entrance to the main bedroom and adaptable bathroom
- A main bedroom with access to an adaptable bathroom At least 1 bathroom that meets all of the design
- requirements of the design guidelines

For 'Apartment Design Guide' analysis refer to sheet series A600

TOWN PLANNING

B 21.02.2019

17.12.2019

D 24.02.2020

23.02.2020

22.12.2020

FOR DISCUSSION ONLY AMENDMENTS

AMENDMENTS FOLLOWING COICNIL RFI

AMENDMENTS FOLLOWING COUCNIL LETTER DATED 17 FEB 2020

CONDITION 1 AMENDMENTS

VOLUNTARY AMENDMENTS

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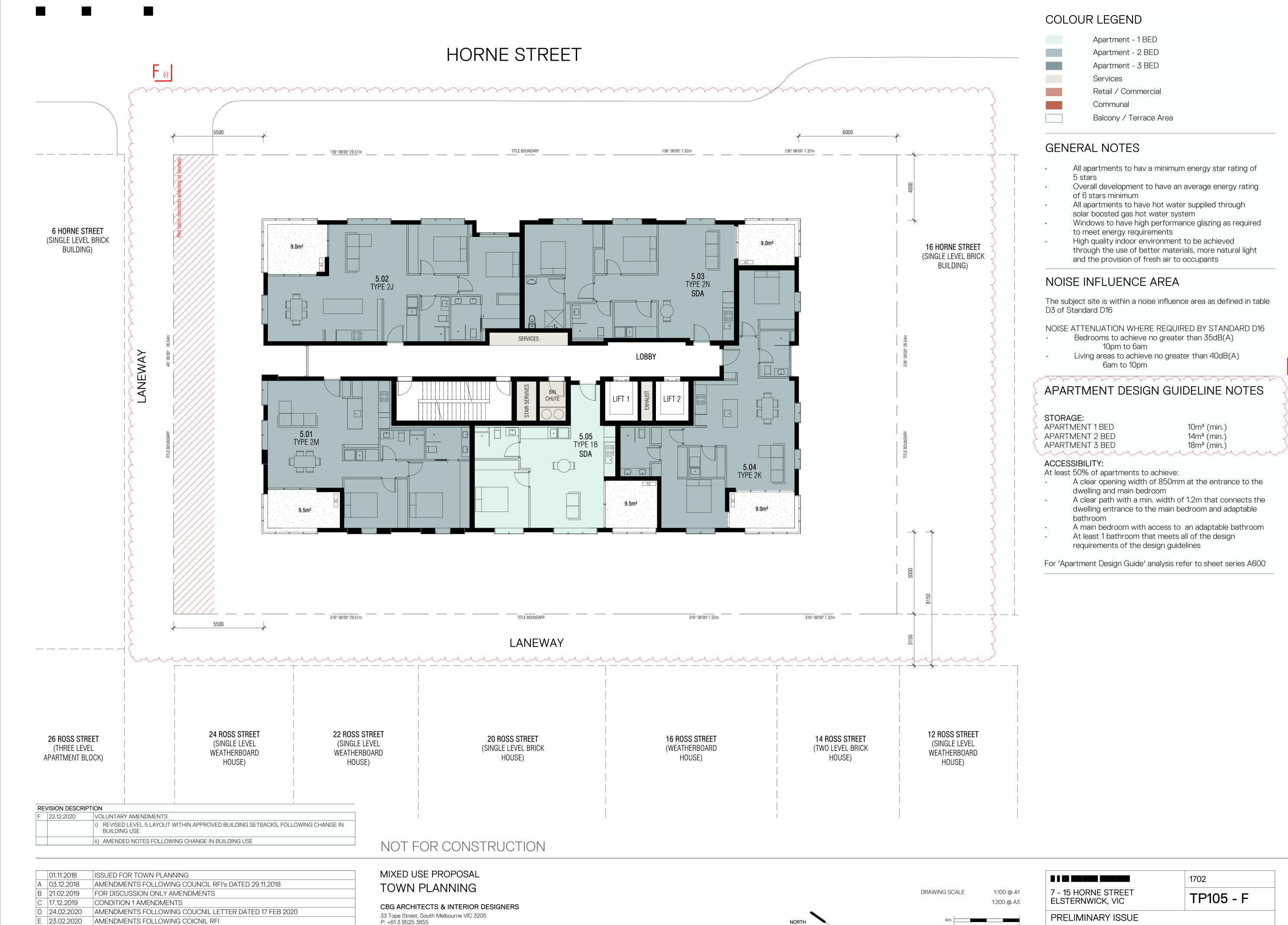
NORTH

1:100 @ A1 1:200 @ A3

LEVEL 4

DRAWING SCALE

1702 7 - 15 HORNE STREET TP104 - F ELSTERNWICK, VIC PRELIMINARY ISSUE

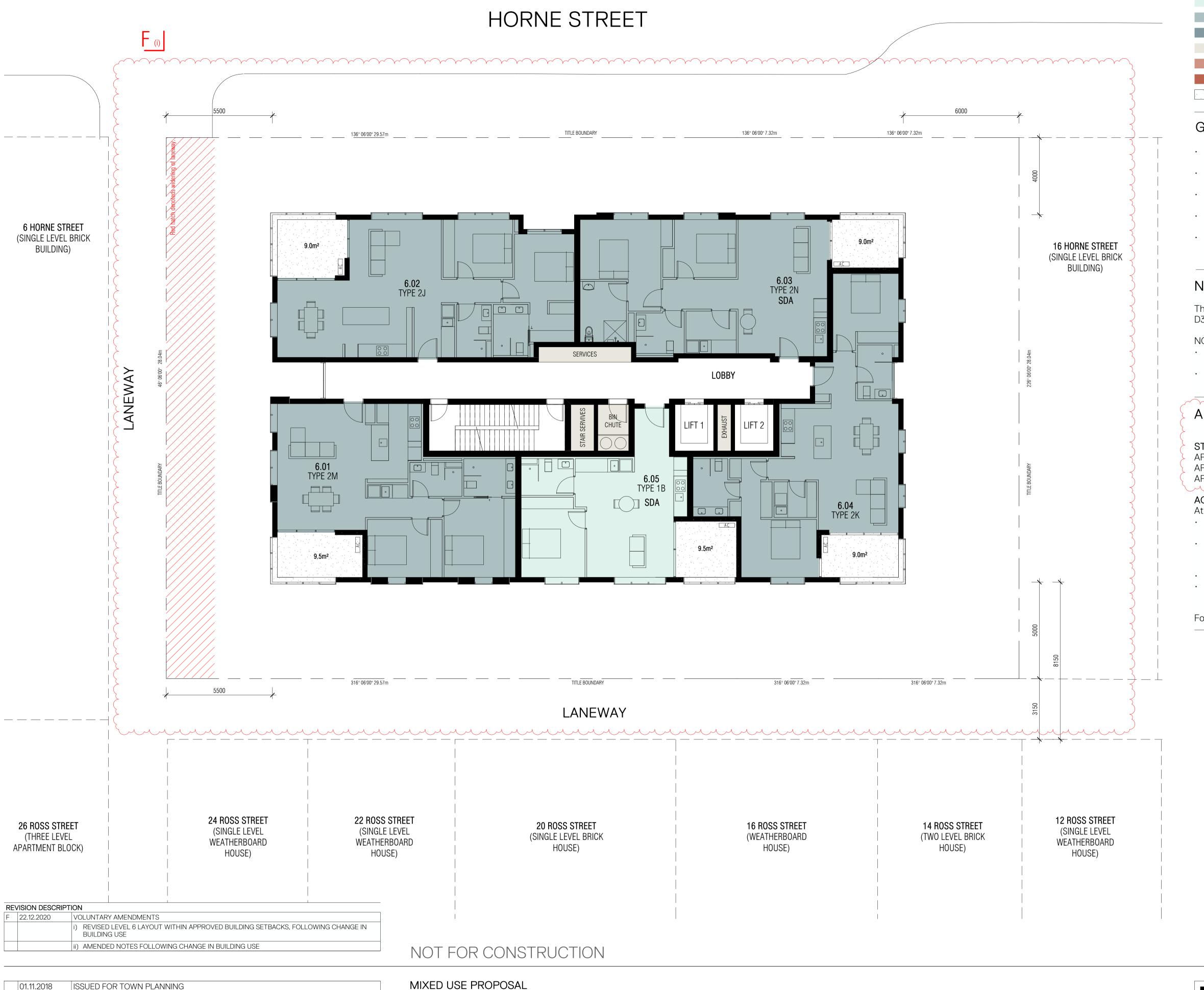


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VOLUNTARY AMENDMENTS

22.12.2020

LEVEL 5



Apartment - 1 BED Apartment - 2 BED

Apartment - 3 BED Services

Retail / Commercial

Communal

Balcony / Terrace Area

GENERAL NOTES

- All apartments to hav a minimum energy star rating of
- Overall development to have an average energy rating of 6 stars minimum
- All apartments to have hot water supplied through solar boosted gas hot water system
- Windows to have high performance glazing as required
- to meet energy requirements High quality indoor environment to be achieved
- through the use of better materials, more natural light and the provision of fresh air to occupants

NOISE INFLUENCE AREA

The subject site is within a noise influence area as defined in table D3 of Standard D16

NOISE ATTENUATION WHERE REQUIRED BY STANDARD D16

- Bedrooms to achieve no greater than 35dB(A) 10pm to 6am
- Living areas to achieve no greater than 40dB(A)
- 6am to 10pm

APARTMENT DESIGN GUIDELINE NOTES

STORAGE:

APARTMENT 1 BED APARTMENT 2 BED APARTMENT 3 BED

14m³ (min.) 18m³ (min.)

10m³ (min.)

ACCESSIBILITY:

1:100 @ A1

1:200 @ A3

At least 50% of apartments to achieve:

- A clear opening width of 850mm at the entrance to the dwelling and main bedroom
- A clear path with a min. width of 1.2m that connects the dwelling entrance to the main bedroom and adaptable bathroom
- A main bedroom with access to an adaptable bathroom
- At least 1 bathroom that meets all of the design requirements of the design guidelines

For 'Apartment Design Guide' analysis refer to sheet series A600

MIXED USE PROPOSAL

|AMENDMENTS FOLLOWING COUNCIL RFI's DATED 29.11.2018

AMENDMENTS FOLLOWING COUCNIL LETTER DATED 17 FEB 2020

FOR DISCUSSION ONLY AMENDMENTS

AMENDMENTS FOLLOWING COICNIL RFI

CONDITION 1 AMENDMENTS

VOLUNTARY AMENDMENTS

A | 03.12.2018

B 21.02.2019

17.12.2019

D 24.02.2020

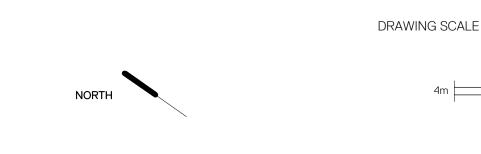
23.02.2020

22.12.2020

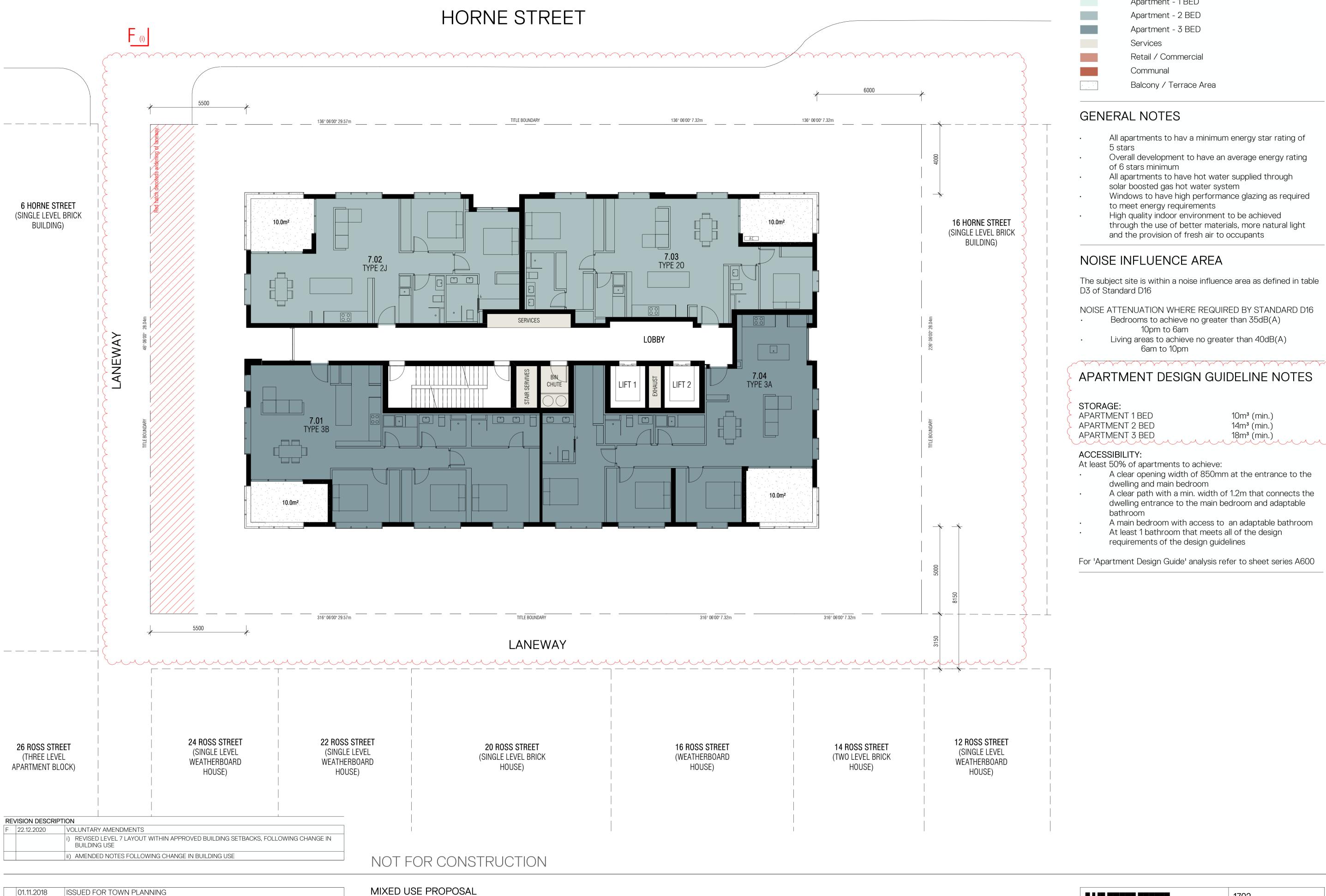
TOWN PLANNING

CBG ARCHITECTS & INTERIOR DESIGNERS 33 Tope Street, South Melbourne VIC 3205 P: +61 3 9525 3855

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	1702	
7 - 15 HORNE STREET ELSTERNWICK, VIC	TP106 - F	
PRELIMINARY ISSUE		
LEVEL 6		



Apartment - 1 BED Apartment - 2 BED Apartment - 3 BED

Services

Retail / Commercial

Communal

Balcony / Terrace Area

GENERAL NOTES

- All apartments to hav a minimum energy star rating of
- Overall development to have an average energy rating
- All apartments to have hot water supplied through solar boosted gas hot water system
- Windows to have high performance glazing as required to meet energy requirements
- High quality indoor environment to be achieved through the use of better materials, more natural light

and the provision of fresh air to occupants

NOISE INFLUENCE AREA

The subject site is within a noise influence area as defined in table D3 of Standard D16

NOISE ATTENUATION WHERE REQUIRED BY STANDARD D16 Bedrooms to achieve no greater than 35dB(A) 10pm to 6am

Living areas to achieve no greater than 40dB(A) 6am to 10pm

APARTMENT DESIGN GUIDELINE NOTES

STORAGE: APARTMENT 1 BED APARTMENT 2 BED

10m³ (min.) 14m³ (min.) 18m³ (min.)

ACCESSIBILITY:

At least 50% of apartments to achieve:

- A clear opening width of 850mm at the entrance to the dwelling and main bedroom
- A clear path with a min. width of 1.2m that connects the dwelling entrance to the main bedroom and adaptable bathroom
- A main bedroom with access to an adaptable bathroom At least 1 bathroom that meets all of the design
 - requirements of the design guidelines

For 'Apartment Design Guide' analysis refer to sheet series A600

TOWN PLANNING

|AMENDMENTS FOLLOWING COUNCIL RFI's DATED 29.11.2018

AMENDMENTS FOLLOWING COUCNIL LETTER DATED 17 FEB 2020

FOR DISCUSSION ONLY AMENDMENTS

AMENDMENTS FOLLOWING COICNIL RFI

CONDITION 1 AMENDMENTS

VOLUNTARY AMENDMENTS

A | 03.12.2018

B 21.02.2019

17.12.2019

D 24.02.2020

23.02.2020

22.12.2020

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	1702
7 - 15 HORNE STREET ELSTERNWICK, VIC	TP107 - F
PRELIMINARY ISSUE	
LEVEL 7	



Apartment - 1 BED

Apartment - 2 BED

Apartment - 3 BED

Services

Retail / Commercial

Communal

Communal
Balcony / Terrace Area

GENERAL NOTES

- All apartments to hav a minimum energy star rating of 5 stars
- Overall development to have an average energy rating of 6 stars minimum
- All apartments to have hot water supplied through solar boosted gas hot water system
- Windows to have high performance glazing as required to meet energy requirements
- High quality indoor environment to be achieved

 through the use of bottor materials, more natural light.
- through the use of better materials, more natural light and the provision of fresh air to occupants

NOISE INFLUENCE AREA

The subject site is within a noise influence area as defined in table D3 of Standard D16

NOISE ATTENUATION WHERE REQUIRED BY STANDARD D16

Bedrooms to achieve no greater than 35dB(A)

10pm to 6am

Living areas to achieve no greater than 40dB(A) 6am to 10pm

APARTMENT DESIGN GUIDELINE NOTES

STORAGE:

APARTMENT 1 BED 10m³ (min.)
APARTMENT 2 BED 14m³ (min.)
APARTMENT 3 BED 18m³ (min.)

ACCESSIBILITY:

At least 50% of apartments to achieve:

- A clear opening width of 850mm at the entrance to the dwelling and main bedroom
- A clear path with a min. width of 1.2m that connects the dwelling entrance to the main bedroom and adaptable bathroom
- · A main bedroom with access to an adaptable bathroom
- At least 1 bathroom that meets all of the design
- requirements of the design guidelines

For 'Apartment Design Guide' analysis refer to sheet series A600

MIXED USE PROPOSAL
TOWN PLANNING

AMENDMENTS FOLLOWING COUNCIL RFI's DATED 29.11.2018

AMENDMENTS FOLLOWING COUCNIL LETTER DATED 17 FEB 2020

FOR DISCUSSION ONLY AMENDMENTS

AMENDMENTS FOLLOWING COICNIL RFI

CONDITION 1 AMENDMENTS

VOLUNTARY AMENDMENTS

A | 03.12.2018

B 21.02.2019

17.12.2019

23.02.2020

22.12.2020

D 24.02.2020

CBG ARCHITECTS & INTERIOR DESIGNERS 33 Tope Street, South Melbourne VIC 3205 P: +61 3 9525 3855

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NORTH

DRAWING SCALE

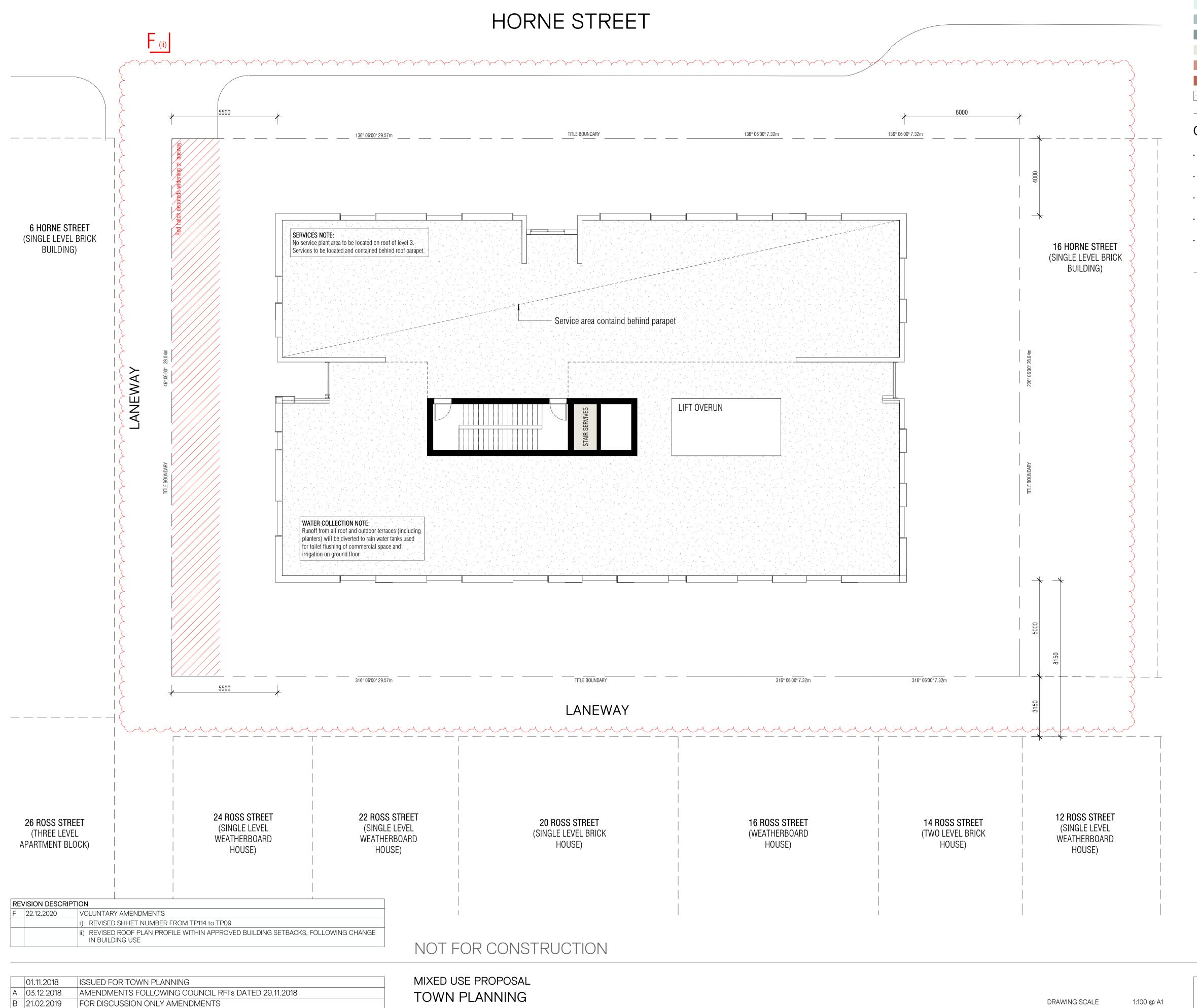
1:100 @ A1

1:200 @ A3

7 - 15 HORNE STREET ELSTERNWICK, VIC TP108 - F

PRELIMINARY ISSUE

LEVEL 8



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33 Tope Street, South Melbourne VIC 3205

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17.12.2019

D 24.02.2020

23.02.2020

22.12.2020

CONDITION 1 AMENDMENTS

VOLUNTARY AMENDMENTS

AMENDMENTS FOLLOWING COICNIL RFI

AMENDMENTS FOLLOWING COUCNIL LETTER DATED 17 FEB 2020

COLOUR LEGEND

Apartment - 1 BED Apartment - 2 BED

Apartment - 3 BED

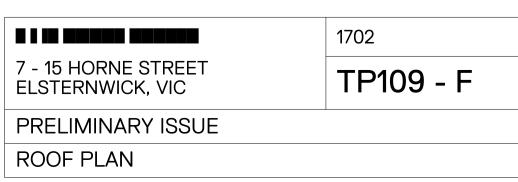
Services

Retail / Commercial

Communal Balcony / Terrace Area

GENERAL NOTES

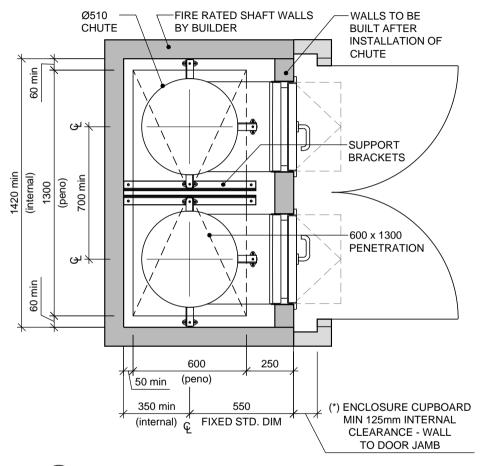
- All apartments to hav a minimum energy star rating of
- Overall development to have an average energy rating of 6 stars minimum
- All apartments to have hot water supplied through solar boosted gas hot water system
- Windows to have high performance glazing as required
- to meet energy requirements
- High quality indoor environment to be achieved through the use of better materials, more natural light and the provision of fresh air to occupants



1:200 @ A3

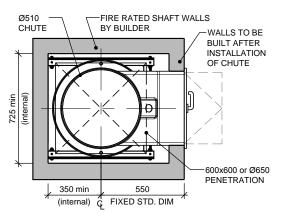
Appendix B: Chute Specifications



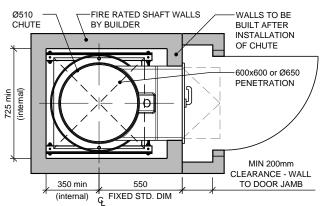


DUAL (510Ø) GALVANISED STEEL CHUTE LAYOUT with ENCLOSURE CUPBOARD (*)
SCALE 1:20

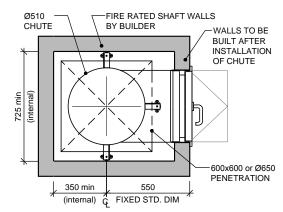
(*) NOTE: ENCLOSURES ARE RECOMMENDED IF THE CHUTE OPENS DIRECTLY TO A CORRIDOR OR IS NOT LOCATED IN A WASTE ROOM. IF CHUTE ACCESS IS WITHIN A WASTE ROOM THEN THE CUPBOARD ENCLOSURES ARE NOT REQUIRED.



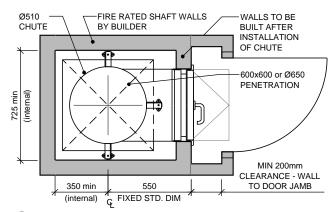
SINGLE (510Ø) LLDPE PLASTIC CHUTE LAYOUT SCALE 1:20



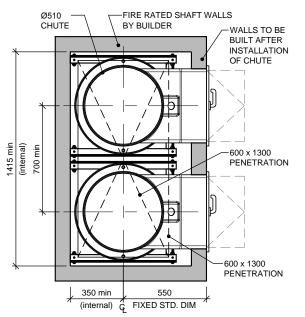
2 SINGLE (510Ø) LLDPE PLASTIC CHUTE LAYOUT with ENCLOSURE (*) SCALE 1:20



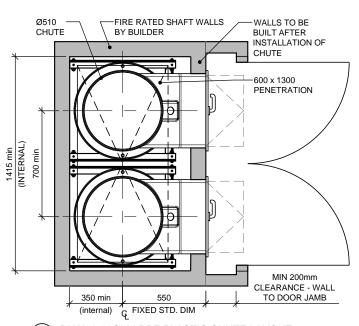
6 SINGLE (510Ø) GALV. STEEL CHUTE LAYOUT SCALE 1:20



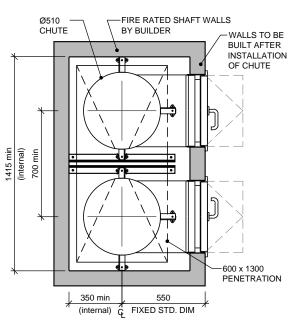
8 SINGLE (510Ø) GALV. STEEL CHUTE LAYOUT with ENCLOSURE (*) SCALE 1:20



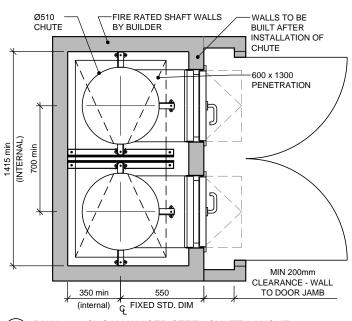
3 DUAL (510Ø) LLDPE PLASTIC CHUTE LAYOUT SCALE 1:20



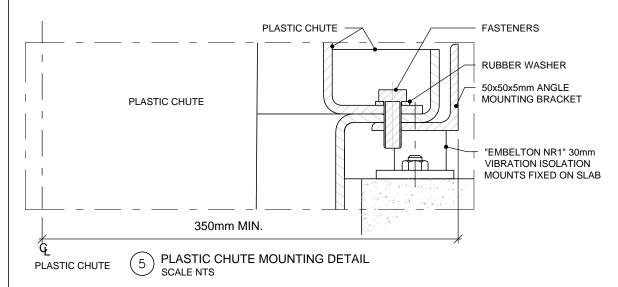
DUAL (510Ø) LLDPE PLASTIC CHUTE LAYOUT with ENCLOSURE (*)
SCALE 1:20

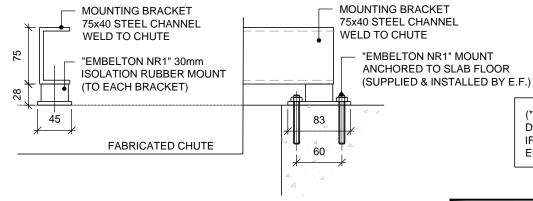


7 DUAL (510Ø) GALVANISED STEEL CHUTE LAYOUT SCALE 1:20



9 DUAL (510Ø) GALVANISED STEEL CHUTE LAYOUT with ENCLOSURE (*)
SCALE 1:20

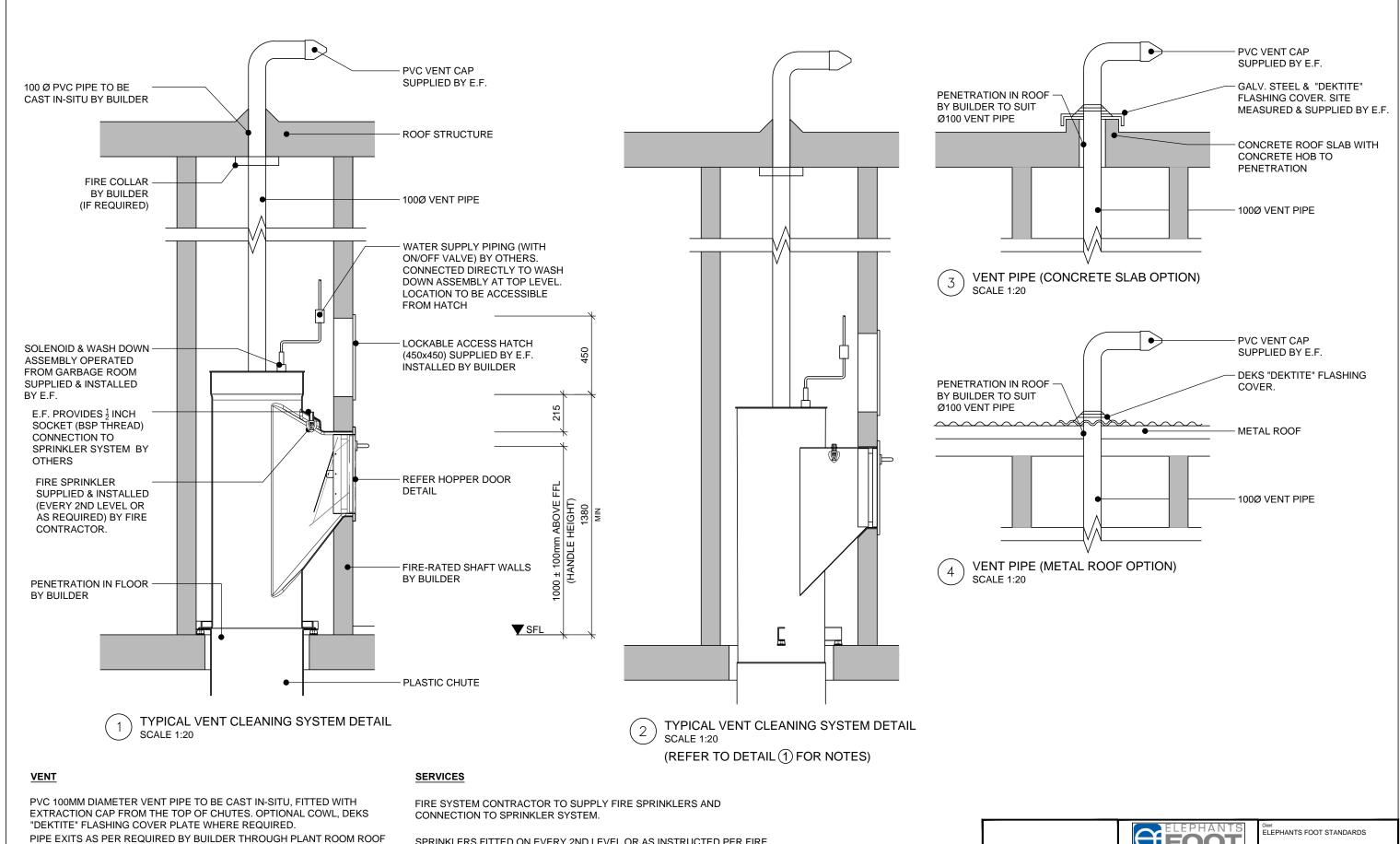




STEEL CHUTE MOUNTING DETAIL SCALE 1:5

(*) NOTE: ENCLOSURES ARE REQUIRED IF THE CHUTE OPENS DIRECTLY TO A CORRIDOR OR IS NOT LOCATED IN A WASTE ROOM. IF CHUTE ACCESS IS WITHIN A WASTE ROOM THEN THE CUPBOARD ENCLOSURES ARE NOT REQUIRED.





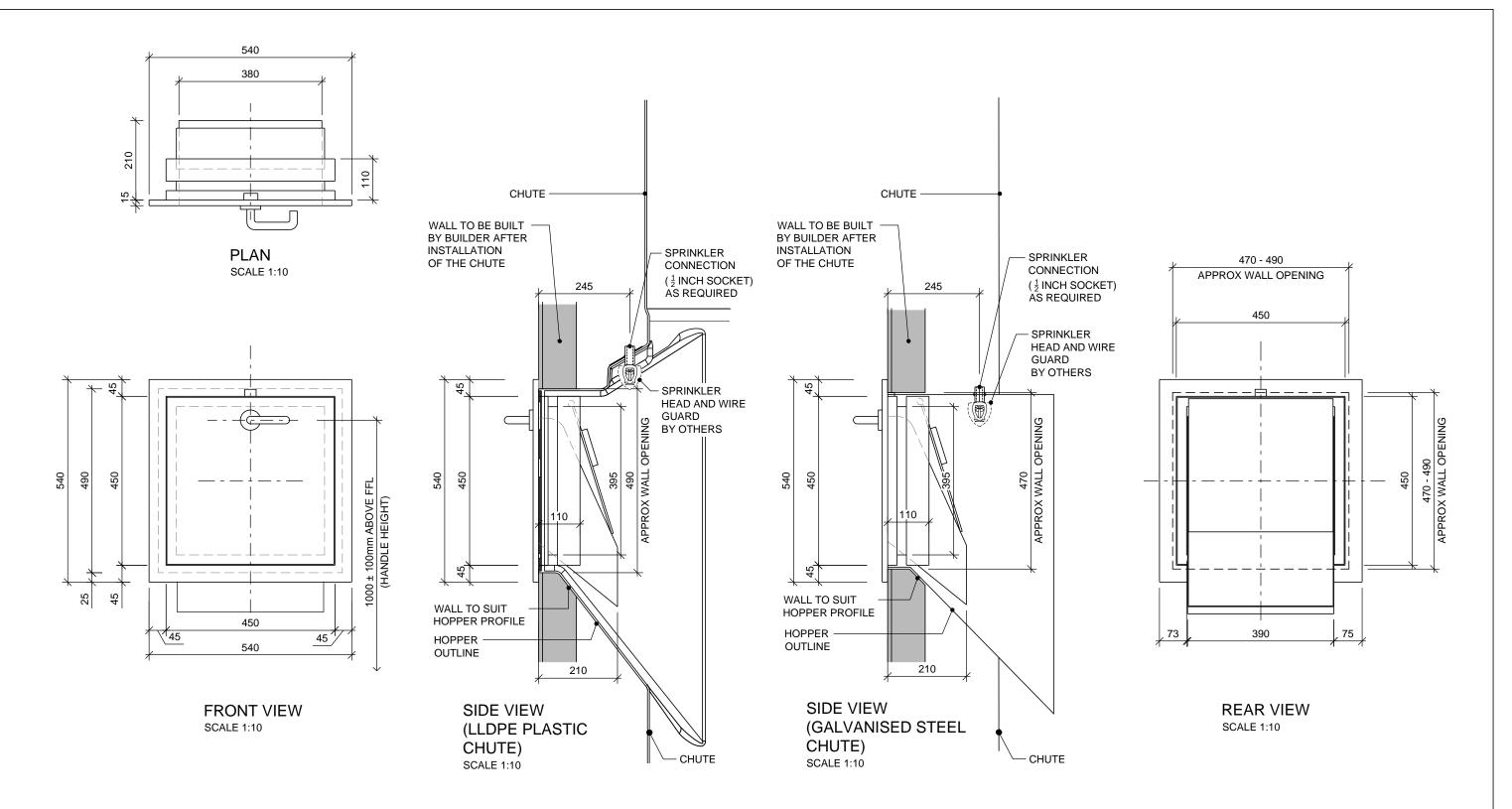
PIPE EXITS AS PER REQUIRED BY BUILDER THROUGH PLANT ROOM ROOF AND CAPPED WITH GALVANISED STEEL REDUCTION CAP.

ACCESS HATCH TO BE SUPPLIED ON LAST LEVEL FOR SERVICING OF THE WASH DOWN SYSTEM AND IN-LINE EXHAUST FAN.

SPRINKLERS FITTED ON EVERY 2ND LEVEL OR AS INSTRUCTED PER FIRE ENGINEERING REPORT / CONTRACTOR.

PLUMBER TO CONNECTION WATER SUPPLY TO WASH DOWN ASSEMBLY





CHUTE DOORS

SUPPLY AND FIT BRUSHED STAINLESS STEEL, TWO HOUR FIRE-RATED (AS1530.4-2005) REFUSE CHUTE DOORS AND THROAT ASSEMBLIES AT EACH SERVICE LEVEL.

ALL DOORS ARE HAND-OPERATED BOTTOM-HINGED, FITTED AND WITH A SELF-CLOSING MECHANISM TO MEET BCA & AUSTRALIAN STANDARDS.

WALLS TO BE BUILT UP TO AND AROUND HOPPER OPENING BY OTHERS AFTER INSTALLATION OF CHUTE. HOPPER DOORS TO BE INSTALLED ON COMPLETION OF THE BUILDING WALL STRUCTURE, AFTER PAINT & ANY OTHER APPLIED WALL FINISHES.

SERVICES

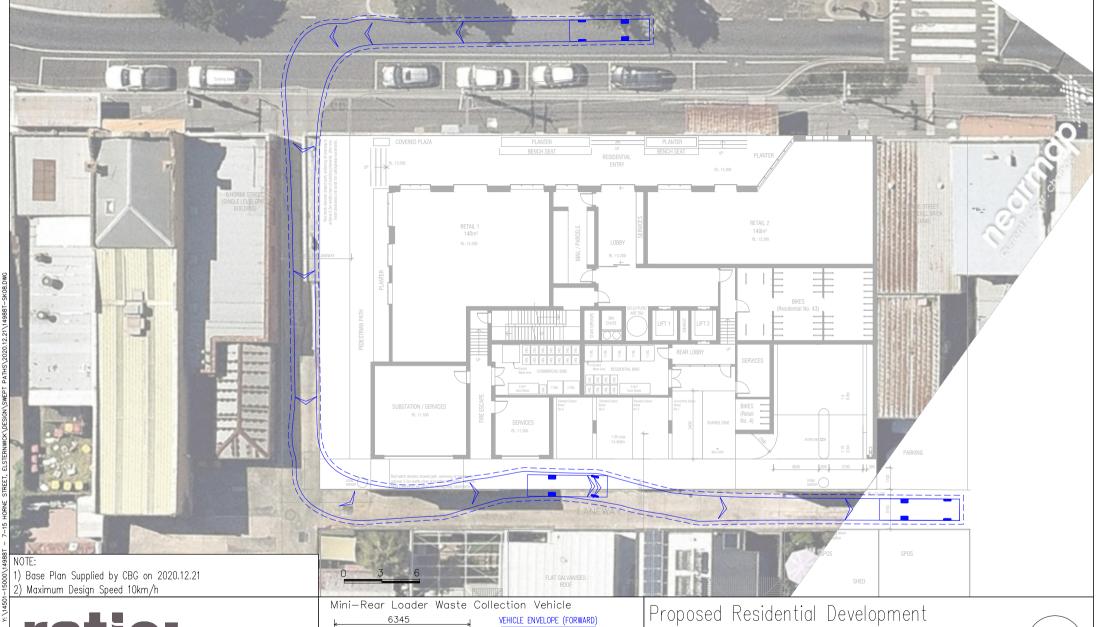
FIRE SYSTEM CONTRACTOR TO SUPPLY FIRE SPRINKLERS AND CONNECTION TO SPRINKLER SYSTEM.

SPRINKLERS FITTED ON EVERY 2ND LEVEL OR AS INSTRUCTED PER FIRE ENGINEERING REPORT / CONTRACTOR.



Appendix C: Waste Truck Swept Path Assessment





ratio:

RATIO CONSULTANTS PTY LTD ABN 005 422 104 8 GWYNNE STREET CREMORNE, VICTORIA 3121 TELEPHONE (03)9429 3111 FACSIMILE (03)9429 3011 VEHICLE ENVELOPE (FORWARD)

300mm CLEARANCE (FORWARD)

VEHICLE ENVELOPE (REVERSE)

300mm CLEARANCE (REVERSE)

300mm CLEARANCE (REVERSE)

300mm CLEARANCE (REVERSE)

6.345m

6.345m

1.700m

2.080m

7.205m

1.670m

1.

7-15 Horne Street, Elsternwick Swept Path Assessment



RATIO REFERENCE	SHEET No.	SCALE	DATE
14988T-SK08/JM	8 of 8	1: 300@A4	21/12/2020