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# 173 Burke Road, Glen Iris

## Acoustic Assessment

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| | |
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# 1 INTRODUCTION

Acoustic Logic Pty Ltd (AL) has been engaged to undertake an acoustic assessment of the proposed mixed-used development located at 173 Burke Road, Glen Iris. This report presents our investigation of the following:

- External traffic noise intrusion into the residential component of the development from the surrounding road network.
- Mechanical plant and equipment serving the proposed development including the mechanical plant and equipment serving the proposed retail tenancy.
- Noise emission from the proposed retail tenancy including truck movements and loading dock operation.
- Noise emission from the vehicles entering and exiting the car park of the proposed development.

The assessment has been conducted based on the following documentation.

**Table 1 – Referenced Documents**

| Company | Document No. | Date |
|---|---|---|
| Cera Stribley | TP1090-TP1104 | 29 November 2023 |

# 2 PROJECT DESCRIPTION

The proposed development is located at 173 Burke Road, Glen Iris and will consist of a 5-storey development which includes 3 levels of basement carparking, a retail tenancy on the ground level and residential apartments on ground level to level 4. The subject site is bounded by Glen Iris Road to the eastern boundary, Hope Street to the northern boundary with existing residential dwellings across the street, and existing residential dwellings to the western and southern boundaries.

Figure 1 below indicate the subject site, surrounding environment and measurement locations.


**Figure 1 – Site map, measurement locations and surrounding environment (source: Google Maps)**

## 2.1 SITE INVESTIGATION

Site inspections and noise level measurements indicated that the dominant noise source affecting the subject site is traffic movement on Burke Road.

It is also noted that the existing residential developments located to the northern, western, and southern boundaries are the nearest noise sensitive receivers (as identified in Figure 1 above) which will be impacted by the operation of the proposed retail, vehicles entering and exiting the car park of the proposed development, and the mechanical plant and equipment serving the proposed development.

# 3 ENVIRONMENTAL NOISE DESCRIPTORS

Environmental noise constantly varies in level, due to fluctuations in local noise sources including traffic and rail. Accordingly, a 15-minute measurement interval is normally utilised. Over this period, noise levels are monitored on a continuous basis and statistical and integrating techniques are used to determine noise description parameters.

In the case of environmental noise three principle measurement parameters are used, namely $L_{10}$, $L_{90}$ and $L_{eq}$.

The $L_{10}$ and $L_{90}$ measurement parameters are statistical levels that represent the average maximum and average minimum noise levels respectively, over the measurement intervals.

The $L_{10}$ parameter is commonly used to measure noise produced by a particular intrusive noise source since it represents the average of the loudest noise levels produced by the source.

Conversely, the $L_{90}$ level (which is commonly referred to as the background noise level) represents the noise level heard in the quieter periods during a measurement interval. The $L_{90}$ parameter is used to set the allowable noise level for new, potentially intrusive noise sources since the disturbance caused by the new source depends on how audible it is above the pre-existing noise environment, particularly during quiet periods, as represented by the $L_{90}$ level.

The $L_{eq}$ parameter represents the average noise energy during a measurement period. This parameter is derived by integrating the noise levels measured over the measurement period. $L_{eq}$ is important in the assessment of traffic and rail noise impact as it closely corresponds with human perception of a changing noise environment; such is the character of industrial noise.

The $L_1$ parameter (or the noise level exceeded for 1% of the time) is used during the night period to assess potential sleep arousal effects due to transient noise sources.

# 4 NOISE LEVEL MEASUREMENTS

## 4.1 MEASUREMENT LOCATION

Traffic noise and background measurements were conducted at the locations indicated in **Figure 1**, which are as the following:

- **Measurement Location 1 –** unattended long-term noise monitor was installed to measure the traffic noise levels at Burke Road. The monitor was installed on the roof level of the existing building. The monitoring was affected by façade reflections.
- **Measurement Location 2 –** unattended long-term noise monitor was installed to measure the existing environmental / ambient noise levels. The monitor was installed on grade with the microphone located approximately 1.5 metres above grade. The monitoring was affected by façade reflections.

## 4.2 MEASUREMENT EQUIPMENT

Rion NL-42 noise monitors were used for the unattended long-term noise monitoring. The equipment was calibrated at the beginning and the end of the measurement using a B&K 4231 calibrator; no significant drift was detected. All measurements were taken on fast response mode.

## 4.3 MEASUREMENT DATE

The unattended ambient noise level measurements were installed on site from 23 to 30 July 2020.

The unattended traffic noise level measurements were installed on site from 25 July to 1 August 2023.

## 4.4 MEASUREMENT RESULTS

The noise measurement results are summarized in the tables below.

**Table 2 – Un-attended Traffic Noise Level Measurements**

| Measurement Location[1] | Period | Measured Noise Level[2] |
|---|---|---|
| Measurement Location 1 | Day (7am – 10pm) | 65 $L_{eq,15hr}$ dB(A)<br>68 $L_{eq,1hr}$ dB(A) |
| | Night (10pm – 7am) | 60 $L_{eq,9hr}$ dB(A)<br>66 $L_{eq,1hr}$ dB(A) |

Note 1 – Refer Figure 1 for measurement locations

Note 2 – Noise levels presented have been corrected for façade reflections.

### Table 3 – Unattended Background Noise Level Measurements

| Measurement Location | Period | Measured Background $L_{90,15min}$ dB(A)[1] |
|---|---|---|
| Measurement Location 2 indicated in Figure 1 | Day<br>Monday – Saturday (7am – 6pm) | 35 |
| | Evening<br>Monday – Saturday (6pm – 10pm)<br>Sunday (7am – 10pm) | 30 |
| | Night<br>Monday – Sunday (10pm – 7am) | 26 |

Note 1: Noise levels presented have been corrected for façade reflections

# 5 ASSESSMENT CRITERIA

## 5.1 EXTERNAL NOISE INTRUSION INTO THE SUBJECT DEVELOPMENT

This section established the internal traffic noise level criteria applicable for the proposed development to ensure that the amenity of the future residents within the development is protected.

### 5.1.1 Standard D16 at Clause 58.04-3

Standard D16 contains the following requirement:

> ***Noise impacts objectives***
>
> *To contain noise sources in developments that may affect existing dwellings.*
>
> *To protect residents from external and internal noise sources.*
>
> ***Standard D16***
>
> *Noise sources, such as mechanical plants should not be located near bedrooms of immediately adjacent existing dwellings.*
>
> *The layout of new dwellings and buildings should minimise noise transmission within the site.*
>
> *Noise sensitive rooms (such as living areas and bedrooms) should be located to avoid noise impacts from mechanical plants, lifts, building services, non-residential uses, car parking, communal areas and other dwellings.*
>
> *New dwellings should be designed and constructed to include acoustic attenuation measures to reduce noise levels from off-site noise sources.*
>
> *Buildings within a noise influence area specified in Table D5 should be designed and constructed to achieve the following noise levels:*
>
> - *Not greater than 35dB(A) for bedrooms, assessed as an LAeq,8h from 10pm to 6am.*
> - *Not greater than 40dB(A) for living areas, assessed LAeq,16h from 6am to 10pm.*
>
> *Buildings, or part of a building screened from a noise source by an existing solid structure, or the natural topography of the land, do not need to meet the specified noise level requirements.*
>
> *Noise levels should be assessed in unfurnished rooms with a finished floor and the windows closed.*

***Table D5 Noise influence area***

| ***Noise Source*** | ***Noise influence area*** |
|---|---|
| ***Zone interface*** | |
| *Industry* | *300 metres from the industrial 1, 2 and 3 zone boundary* |
| ***Roads*** | |
| *Freeways, tollways and other roads carrying 40,000 Annual Average Daily Traffic Volume* | *300 metres from the nearest trafficable lane* |
| ***Railways*** | |
| *Railway servicing passengers in Victoria* | *80 metres from the centre of the nearest track* |
| *Railway servicing freight outside Metropolitan Melbourne* | *80 metres from the centre of the nearest track* |
| *Railway servicing freight in Metropolitan Melbourne* | *135 metres from the centre of the nearest track* |

*Note: The noise influence area should be measured from the closest part of the building to the noise source.*

***Decision guidelines***

*Before deciding on an application, the responsible authority must consider:*

- *The design response.*
- *Whether it can be demonstrated that the design treatment incorporated into the development meets the specified noise levels or an acoustic report by a suitably qualified consultant submitted with the application.*
- *Whether the impact of potential noise sources within a development have been mitigated through design, location and siting.*
- *Whether the layout of rooms within a dwelling mitigates noise transfer within and between dwellings.*
- *Whether an alternative design meets the relevant objectives having regard to the amenity of the dwelling and the site context.*

Based on these conditions, the subject site has been reviewed as follows:

1. The development is **not** within 300m of an industrial zone.
2. The development is **not** within 300m of a freeway or road carrying an AADT >40,000
3. The subject site is **not** located within 80 metres of the centre of the nearest railway track.

Based on the above, the Standards D16 at Clause 58.04-3 is **not applicable to this development** and the internal noise level criteria has been based on Australian Standards AS2107:2016 below.

### 5.1.2 Australian Standards AS2107:2016

Australian Standard AS/NZS2107:2016 "Recommended Design Sound Levels and Reverberation Times for Building Interiors" sets out recommended design sound levels for residential developments depending on locality to minor or major roads, noting that Burke Road is classified as an arterial road. Burke Road is considered an arterial road and as such the criteria for traffic noise will be based on that for a major road. Table 4 below details the criterion set for this development.

**Table 4 – Internal Noise Criteria (Traffic Noise)**

| Location | Required Maximum Internal Noise Level[1] | |
|---|---|---|
| | Day (7am – 10pm) dB(A) $L_{eq}$ | Night (10pm – 7am) dB(A) $L_{eq}$ |
| Apartment Bedrooms | 35 - 45 | 35 - 40 |
| Apartment Living rooms | 35 - 45 | N/A |

Note 1 - Noise level within furnished room ready for occupation with external windows and doors closed.

## 5.2 EPA VICTORIA PUBLICATION 1826.4

To ensure that noise emissions from the proposed development site do not impact adversely on the amenity of the surrounding noise sensitive areas, the proposed development should be designed to comply with the EPA Noise Protocol Publication 1826.4 – Part 1.

### 5.2.1 Zoning Level

The 'Zoning' level is determined by the Influencing Factor (IF) and is calculated by the formula and the 'Zoning Level versus Influencing Factor' graph nominated in Section 1.1 of the EPA Noise Protocol and VicPlan Mapping. The IF is calculated from the proportion of industrial and commercial land around noise sensitive areas. Review of the surrounding area indicates an IF of approximately **0.16** which results in the zoning limits detailed in Table 5 below.

**Table 5 - Zoning Levels**

| Period | Zoning Level dB(A) |
|---|---|
| Day time | 53 |
| Evening | 47 |
| Night time | 42 |

### 5.2.2 EPA Noise Protocol – Part 1

Table 6 below details the assessment criteria based on both the zoning levels and the measured background noise levels.

**Table 6 – Noise Limits**

| Period | Background dB(A) $L_{90,Period}$ | Zoning limit | Classification | Project Noise Limits dB(A) $L_{eq}$ |
|---|---|---|---|---|
| **Day**<br>Monday – Saturday (7am – 6pm) | 35 | 53 | Low | **49** |
| **Evening**<br>Monday – Saturday (6pm – 10pm)<br>Sunday (7am – 10pm) | 30 | 47 | Low | **42** |
| **Night**<br>Monday – Friday (10pm – 7am) | 26 | 42 | Low | **37** |

# 6 EVALUATION OF EXTERNAL NOISE INTRUSION INTO THE SUBJECT DEVELOPMENT

Internal noise levels will primarily be as a result of noise transfer through the windows, doors and roof as these are relatively light building elements that offer less resistance to the transmission of sound. Walls that are proposed to be precast / heavy masonry elements will not require upgrading acoustically.

The predicted noise levels through the windows, doors and roof are discussed below. The predicted noise levels have been based on the expected level and spectral characteristics of the external noise, the area of building elements exposed to traffic noise, the absorption characteristics of the rooms and the noise reduction performance of the building elements.

Glazing/façade treatment was determined based on the measured noise levels and transmission loss of the façade. The constructions set out below are necessary for the satisfactory control of external noise to comply with the internal noise level criteria detailed in Table 6.

## 6.1 RECOMMENDED APARTMENT GLAZING

The minimum glazing requirements schedule for this development is detailed in **Appendix 1 – Facade Schedule**. The glass thicknesses shown in the schedule do not take into account thermal, structural, safety or any other requirements other than acoustic requirements and thus may require upgrading in some instances. In these instances, increasing the glass thickness beyond the acoustic requirement will be acceptable. Where the glazing thickness has not been specified, standard glazing will be acceptable.

Table 7 below details the minimum $R_w$ performance requirements for the glazing assembly installed. Where openable windows or sliding doors are installed, the total $R_w$ performance of the system shall not be lower than the values listed in Table 7. It is noted that the system supplied shall meet the overall minimum $R_w$ ratings nominated based on a laboratory test report for the system. If an alternative system is proposed the system shall be reviewed and will require approval by a suitably qualified acoustic consultant to ensure that the proposed system is acceptable and will ensure compliance with the nominated internal noise design criteria detailed in Section 5.

### Table 7 – Minimum External Glazing Requirements / Performance

| Glazing Location | Required Glazing Construction[1] | Minimum Rw of Installed Window System | Acoustic Seals[2] |
|---|---|---|---|
| Refer Appendix 1 – Façade Schedule | 6mm glass or 6/12/6 IGU | 29 | Yes |
| | 6.38mm lam or 6/12/6.38 lam IGU | 31 | Yes |
| | 10.38mm lam or 6/12/10.38 lam IGU | 35 | Yes |

Note 1 - or alternative as approved by a suitably qualified acoustic consultant.
Note 2 - Mohair Seals in windows and doors **are not acceptable** where acoustic seals are required. Seals in these instances shall be equal to Schlegel Q-lon.

## 6.2 APARTMENT ROOF CONSTRUCTION

Apartment roof will be concrete construction and therefore require no further upgrades to address traffic noise intrusion.

Roof penetrations must be sealed gap free with a flexible sealant. Any ventilation requirements via roof would need to be acoustically treated to maintain the acoustic performance of the roof construction.

## 6.3 APARTMENT EXTERNAL WALL CONSTRUCTION

Apartment external walls that incorporate concrete or masonry elements will not require upgrading acoustically. Where the lightweight construction occurs, the construction shall be as indicated in Appendix 1.

External wall penetrations must be sealed gap free with a flexible sealant. Any ventilation requirements via façade would need to be acoustically treated to maintain the acoustic performance of the external wall construction.

# 7 MECHANICAL EQUIPMENT SERVING THE SUBJECT DEVELOPMENT

To ensure that noise emissions from plant and equipment serving the development (including the Supermarket tenancy) do not impact adversely on the amenity of neighbouring residential properties, noise emissions from the mechanical plant and equipment shall comply with EPA Noise Protocol – Part I.

It is noted that plant and equipment selections/design have not yet been finalised. Therefore, to ensure amenity of the nearest noise sensitive residential receivers identified in Figure 1 and the future residential apartment within the proposed development is preserved, mechanical plant and equipment shall be reviewed and designed by a suitably qualified acoustic consultant during the detailed design stage to ensure compliance with EPA Noise Protocol – Part I criteria detailed in Table 6 is achieved. This will be achieved by the use of standard acoustic treatment such as internally lined ductwork, acoustic attenuators, variable speed drives, and vibration isolation mounts.

The mechanical plant and equipment located on the roof shall be acoustically treated with solid imperforate screen or acoustic louvre. The final acoustic treatments shall be determined during the detailed design phase to ensure compliance with EPA Noise Protocol – Part I criteria detailed in Table 6 is achieved.

# 8 REVIEW OF THE PROPOSED SUPERMARKET TENANCY

To ensure that the amenity of the surrounding nearby existing residential receivers and the future residents within the development is protected, the operation of the proposed supermarket tenancy shall be designed to ensure compliance with EPA Noise Protocol – Part I. The impact from the supermarket operation is typically due to the mechanical plant and equipment and the loading dock / back-of-house activities. The following acoustic treatments shall be implemented to ensure compliance with EPA Noise Protocol – Part I is achieved.

## 8.1 SUPERMARKET TENANCY MECHANICAL PLANT

As indicated in Section 7 above, the mechanical plant and equipment shall be reviewed and designed by a suitably qualified acoustic consultant during the detailed design stage to ensure compliance with EPA Noise Protocol – Part I is achieved at the nearest noise sensitive residential receivers identified in Figure 1 and the future residential apartments within the proposed development.

## 8.2 TRUCK MOVEMENT AND LOADING DOCK ACTIVITIES

Assessment of the truck movement entering and exiting the carpark / loading and the activities within the back-of-house / loading dock has been conducted to ensure compliance with EPA Noise Protocol – Part I is achieved at the nearest noise sensitive residential receivers identified in Figure 1 and the future residential apartments within the proposed development. The following sound power level of a large rigid (>7.5 tonne) truck driving at less than 15km/h and loading dock operation have been used in the assessment, which has been based on measurements conducted by AL of similar operations.

**Table 8 – Sound Power Level**

| Type of Operation | Sound Power Level |
|---|---|
| Large Truck (>7.5 Tonne) | 100 dB(A) |
| Loading Dock Operation | 85 dB(A) |

The following assumptions have been made:

- A maximum of 2 large truck deliveries will occur in a half hour time period.
- Loading / unloading activities will only occur inside the loading dock. No loading / un-loading will occur on Burke Road, Hope Street, or other streets / roads. Note that the loading dock is fully enclosed.
- The worst affected nearby existing residential dwellings from the truck entering / exiting will be the existing dwelling east of subject site (across Burke Road).
- The worst affected residential apartments within the proposed development are apartments 110, 111 112, 113, 114, and 115 which are located directly above the loading dock.

Based on the above, the following recommendations shall be implemented.

- The loading dock entry door shall be solid imperforate and vibration isolated from the building structure.

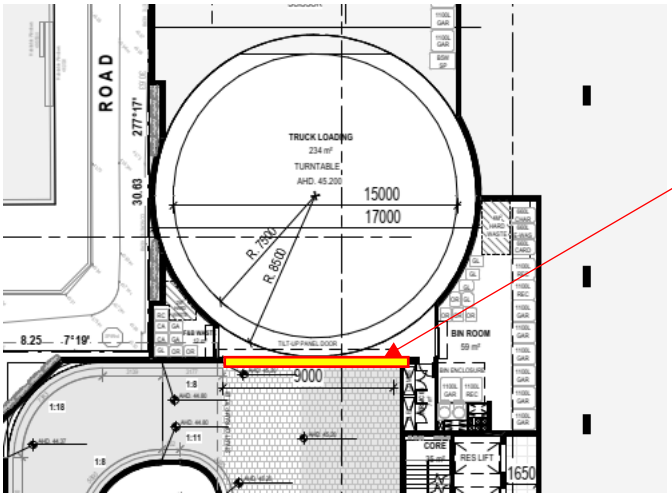



**Figure 2 – Loading dock solid imperforate door**

- The loading dock access door shall be kept close except during vehicle access. The operation of the access door shall be managed to ensure that the door is opening prior to truck arrival to avoid idling truck on Burke Road. The door shall be fully closed once the truck is located fully inside the loading dock, prior to turntable or loading / un-loading activities.

- Loading dock shall be mechanically ventilated, with the fan to be acoustically treated with internally lined ductwork or attenuators to ensure compliance with EPA Noise Protocol – Part I is achieved. If natural ventilation is required for fresh air intake, the air intake louvre shall be nominal 600 deep acoustic louvre or approved alternative by a suitably qualified acoustic consultant.

- The slab soffit within the loading dock area shall be lined with absorptive material such as 40mm Envirospray or approved equivalent by a suitable qualified acoustic consultant. Extent indicatively shown below.


**Figure 3 – Acoustic treatments to slab soffit**

- The impact from the loading dock is typically generated by the pallet jacks and trolley movements on the slab. On this basis, the loading area on ground level accessible to pallet jack and trolleys shall incorporate an isolated secondary concrete slab. In principle pallet jack shall not access the selling area.

- It is recommended that pallet jacks within the dock be similar to Crown SHR which uses forklift-type tines rather than conventional mechanical supermarket pallet jacks.

Provided the acoustic treatment recommendations above are implemented, we confirm that the truck movement and operation of the loading dock / back-of-house will achieve compliance with EPA Noise Protocol – Part I at the nearest noise sensitive residential receivers identified in Figure 1 and the future residential apartments within the proposed development.

## 9 ASSESSMENT OF VEHICLE MOVEMENT

Assessment of the vehicle entering and exiting the carpark of the proposed development has been conducted to ensure compliance with EPA Noise Protocol – Part I is achieved at the nearest noise sensitive residential receivers identified in Figure 1. The following sound power level has been used in the assessment, which has been based on measurements conducted by AL of similar operations.

**Table 9 – Sound Power Level**

| Type of Operation | Sound Power Level |
|---|---|
| Car Engine at 5km/h | 86 dB(A) |

The following assumptions have been made:

- Assessment has been conducted for vehicle movement through the Hope Street vehicle entrance.

- Vehicle entrance on Burke Road is under cover and therefore no assessment has been made. In addition, the traffic noise for apartments facing Burke Road will be dominated by traffic movement on Burke Road.

- Car movements are modelled based on the following numbers as provided by the traffic engineer for peak hours:

    - AM peak hours: approx. 90 two-way movements

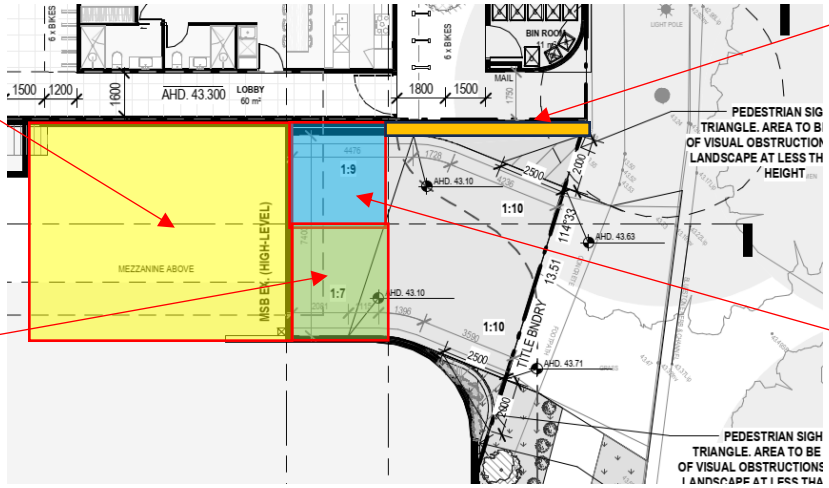
    - PM peak hours: approx. 190 two-way movements

- The worst affected nearby existing residential dwellings from the truck entering / exiting will be the existing dwelling located at 25 and 26 Hope Street located west and north of subject site respectively. Compliance at this dwelling will ensure compliance will be achieved elsewhere.

- The vehicle access is modelled as the following:

Vehicle access under cover (located below slab) at this location

Vehicle access under cover (located below slab of apartment 201 terrace) at this location




Solid imperforate screening to min 1.8m height

Solid imperforate roof above vehicle access

- Noise levels from vehicle movement associated with the northern vehicle access are predicted at noise sensitive receiver locations using SoundPlan™ modelling software implementing the ISO 9613-2:1996 *"Acoustics – Attenuation of Sound During Propagation Outdoors – Part 2: General Method of Calculation"* noise propagation Standard. Noise levels presented are the façade incidence levels and do not include façade reflection.

The predicated noise levels at the existing residential dwelling at 25 and 26 Hope Street are indicated in the table below.

### Table 10 – Predicted Vehicle Movements Noise Levels at the Nearest Noise Sensitive Receiver

| Location | Period | Predicated Noise Levels | EPA Noise Protocol Part I Criteria | Complies |
|---|---|---|---|---|
| 26 Hope Street (northern façade)[1] | Day | <49 | 49 | Yes |
| | Evening | <42 | 42 | Yes |
| | Night | <37 | 37 | Yes |
| 25 Hope Street (southern façade)[1] | Day | <49 | 49 | Yes |
| | Evening | <42 | 42 | Yes |
| | Night | <37 | 37 | Yes |

Note 1 – This is considered as the worst affected location and therefore compliance at this location will ensure compliance elsewhere.

Based on the above, provided the acoustic treatment recommendations above are implemented the vehicle movement accessing the car park will achieve compliance with EPA Noise Protocol – Part I at the nearest noise sensitive residential receivers identified in Figure 1.

## 10 CONCLUSION

This report details our acoustic assessment for the proposed mixed-use development at 173 Burke Road, Glen Iris. Provided the external fabric construction (ie glazing, external wall / door and roof / ceiling) detailed in Section 6 is implemented, then compliance with the internal traffic noise level criteria detailed in Section 5 will be achieved.

Review of supermarket operation, mechanical plant and equipment and vehicle movement (entering and exiting the car park via northern access) has also been conducted to ensure compliance with EPA Noise Protocol – Part I is achieved at the identified nearby noise sensitive residential receivers.

We trust this information is satisfactory. Please contact us should you have any further queries.

Yours faithfully,

Acoustic Logic Pty Ltd
Stanley Sinatra

## APPENDIX 1 – ACOUSTIC MARKUP

Rev: 2
Date: 13/12/2023

ACOUSTIC LOGIC

**Minimum Glazing Requirements**

- 6mm or 6/12/6 IGU*
- 6.38mm lam or 6/12/6.38 lam IGU*
- 10.38mm lam or 6/12/10.38 lam IGU*

Note *: or approved alternative by a suitably qualified acoustic consultant. Minimum Rw rating for proposed system as nominated in the acoustic report.

**Apartment External Wall**

External wall incorporating concrete / masonry / blockwork will not require additional acoustic treatments. Lightweight external walls shall be as the following minimum construction:

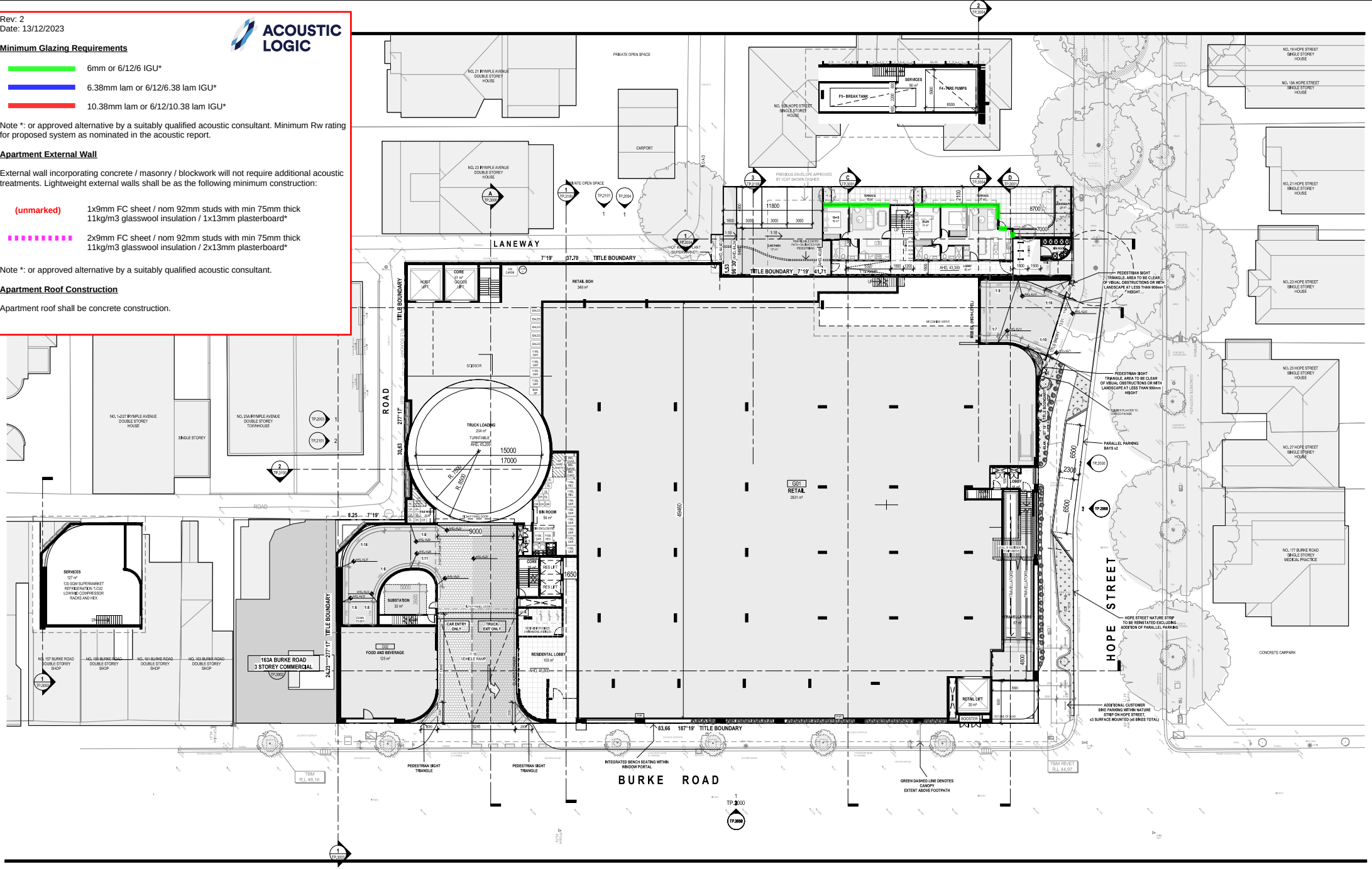
(unmarked) 1x9mm FC sheet / nom 92mm studs with min 75mm thick 11kg/m3 glasswool insulation / 1x13mm plasterboard*

2x9mm FC sheet / nom 92mm studs with min 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard*

Note *: or approved alternative by a suitably qualified acoustic consultant.

**Apartment Roof Construction**

Apartment roof shall be concrete construction.

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NOTES

Do not scale. Contractor must verify all dimensions on site before commencing any work or preparing shop drawings which must be approved by the architect before manufacture. Any extra entailed work shown on this drawing must be claimed and approved before proceeding.



| REV | DATE | REVISION | BY | CHK |
|---|---|---|---|---|

| REV | DATE | REVISION | BY | CHK |
|---|---|---|---|---|

23076_ BURKE ROAD
DRAFT - NOT FOR ISSUE
28/11/2023

PROJECT
**BURKE ROAD**
173 BURKE ROAD GLEN IRIS
MIXED-USE DEVELOPMENT

DRAWING STATUS
**TOWN PLANNING**

| | |
|---|---|
| JOB N° | 23076 |
| REVISION N° | |
| DATE | 29.11.23 |
| SCALE | 1 : 200 @ A1 |
| DRAWN BY | OF |
| CHECKED BY | DC |

DRAWING TITLE
**GROUND FLOOR PLAN**

TP.1100

Rev: 2
Date: 13/12/2023

ACOUSTIC LOGIC

**Minimum Glazing Requirements**

- 6mm or 6/12/6 IGU*
- 6.38mm lam or 6/12/6.38 lam IGU*
- 10.38mm lam or 6/12/10.38 lam IGU*

Note *: or approved alternative by a suitably qualified acoustic consultant. Minimum Rw rating for proposed system as nominated in the acoustic report.

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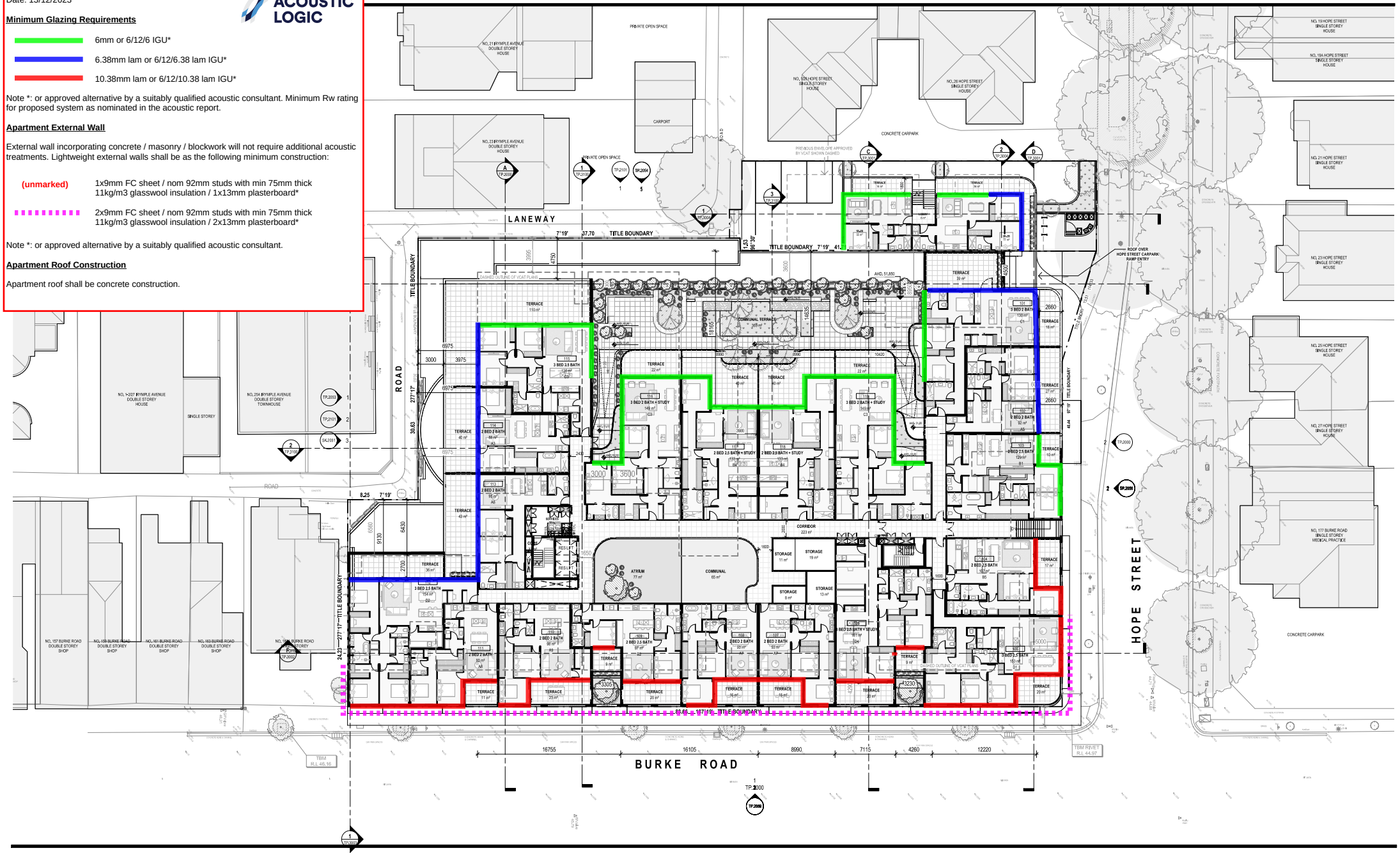


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Prahran VIC 3181 AUS


NOTES

Do not scale. Contractor must verify all dimensions on site before commencing any work or preparing shop drawings which must be approved by the architect before manufacture. Any extra entailed work shown on this drawing must be claimed and approved before proceeding.



| REV | DATE | REVISION | BY | CHK |
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| REV | DATE | REVISION | BY | CHK |
|---|---|---|---|---|

23076_ BURKE ROAD
DRAFT - NOT FOR ISSUE
28/11/2023

PROJECT
**BURKE ROAD**
173 BURKE ROAD GLEN IRIS
MIXED-USE DEVELOPMENT

DRAWING STATUS
**TOWN PLANNING**

| | |
|---|---|
| JOB N° | 23076 |
| REVISION N° | |
| DATE | 10.10.2023 |
| SCALE | 1 : 200 @ A1 |
| DRAWN BY | KH |
| CHECKED BY | DC |

DRAWING TITLE
**LEVEL 01 PLAN**

TP.1101

Rev: 2
Date: 13/12/2023

ACOUSTIC LOGIC

**Minimum Glazing Requirements**

- 6mm or 6/12/6 IGU*
- 6.38mm lam or 6/12/6.38 lam IGU*
- 10.38mm lam or 6/12/10.38 lam IGU*

Note *: or approved alternative by a suitably qualified acoustic consultant. Minimum Rw rating for proposed system as nominated in the acoustic report.

**Apartment External Wall**

External wall incorporating concrete / masonry / blockwork will not require additional acoustic treatments. Lightweight external walls shall be as the following minimum construction:

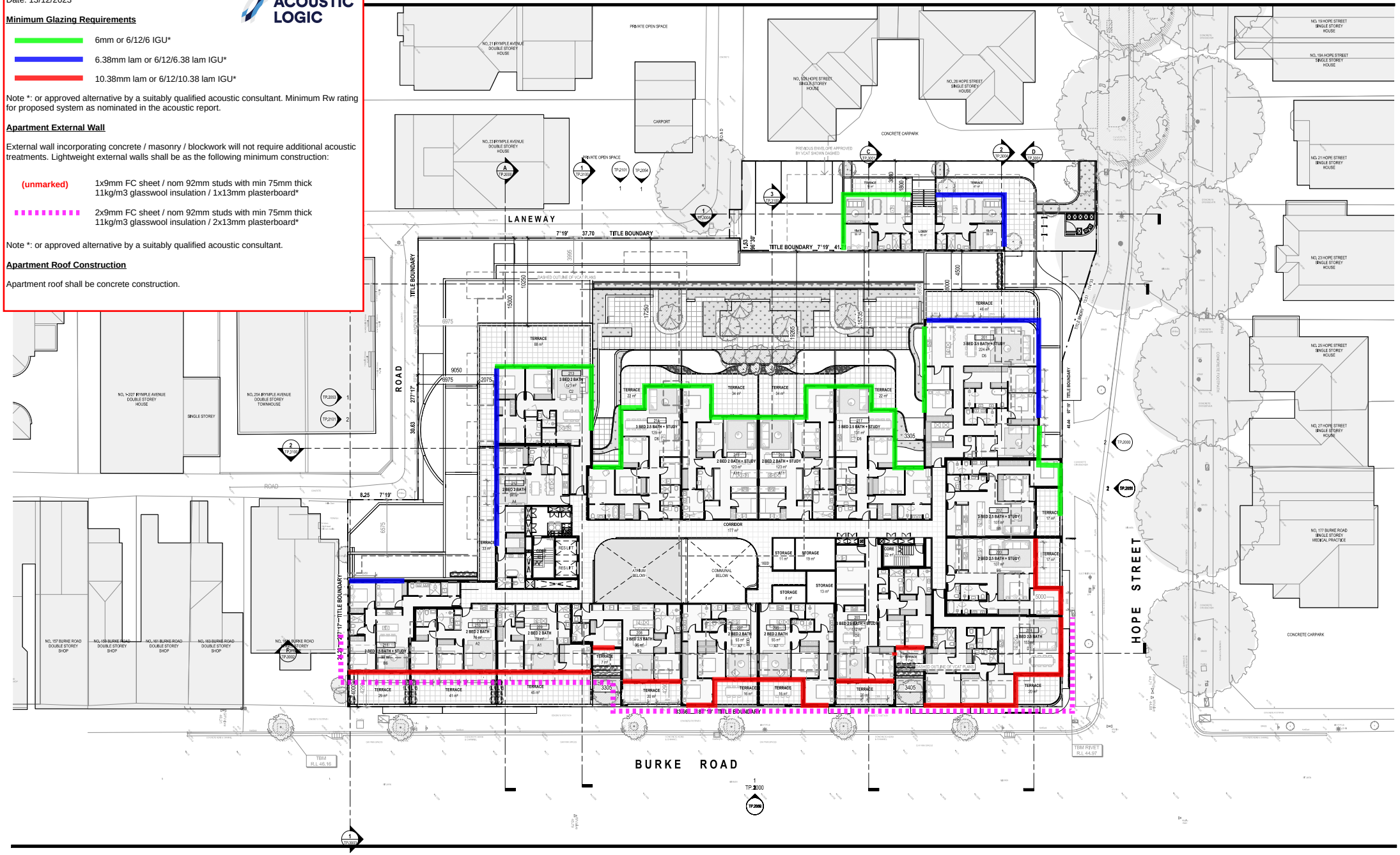
(unmarked) 1x9mm FC sheet / nom 92mm studs with min 75mm thick 11kg/m3 glasswool insulation / 1x13mm plasterboard*

2x9mm FC sheet / nom 92mm studs with min 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard*

Note *: or approved alternative by a suitably qualified acoustic consultant.

**Apartment Roof Construction**

Apartment roof shall be concrete construction.

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NOTES

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23076_ BURKE ROAD
DRAFT - NOT FOR ISSUE
28/11/2023

PROJECT
**BURKE ROAD**
173 BURKE ROAD GLEN IRIS
MIXED-USE DEVELOPMENT

DRAWING STATUS
**TOWN PLANNING**

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| JOB N° | 23076 |
| REVISION N° | |
| DATE | 10.10.2023 |
| SCALE | 1 : 200 @ A1 |
| DRAWN BY | KH |
| CHECKED BY | DC |

DRAWING TITLE
**LEVEL 02 PLAN**

TP.1102

Rev: 2
Date: 13/12/2023

ACOUSTIC LOGIC

**Minimum Glazing Requirements**

- 6mm or 6/12/6 IGU*
- 6.38mm lam or 6/12/6.38 lam IGU*
- 10.38mm lam or 6/12/10.38 lam IGU*

Note *: or approved alternative by a suitably qualified acoustic consultant. Minimum Rw rating for proposed system as nominated in the acoustic report.

**Apartment External Wall**

External wall incorporating concrete / masonry / blockwork will not require additional acoustic treatments. Lightweight external walls shall be as the following minimum construction:

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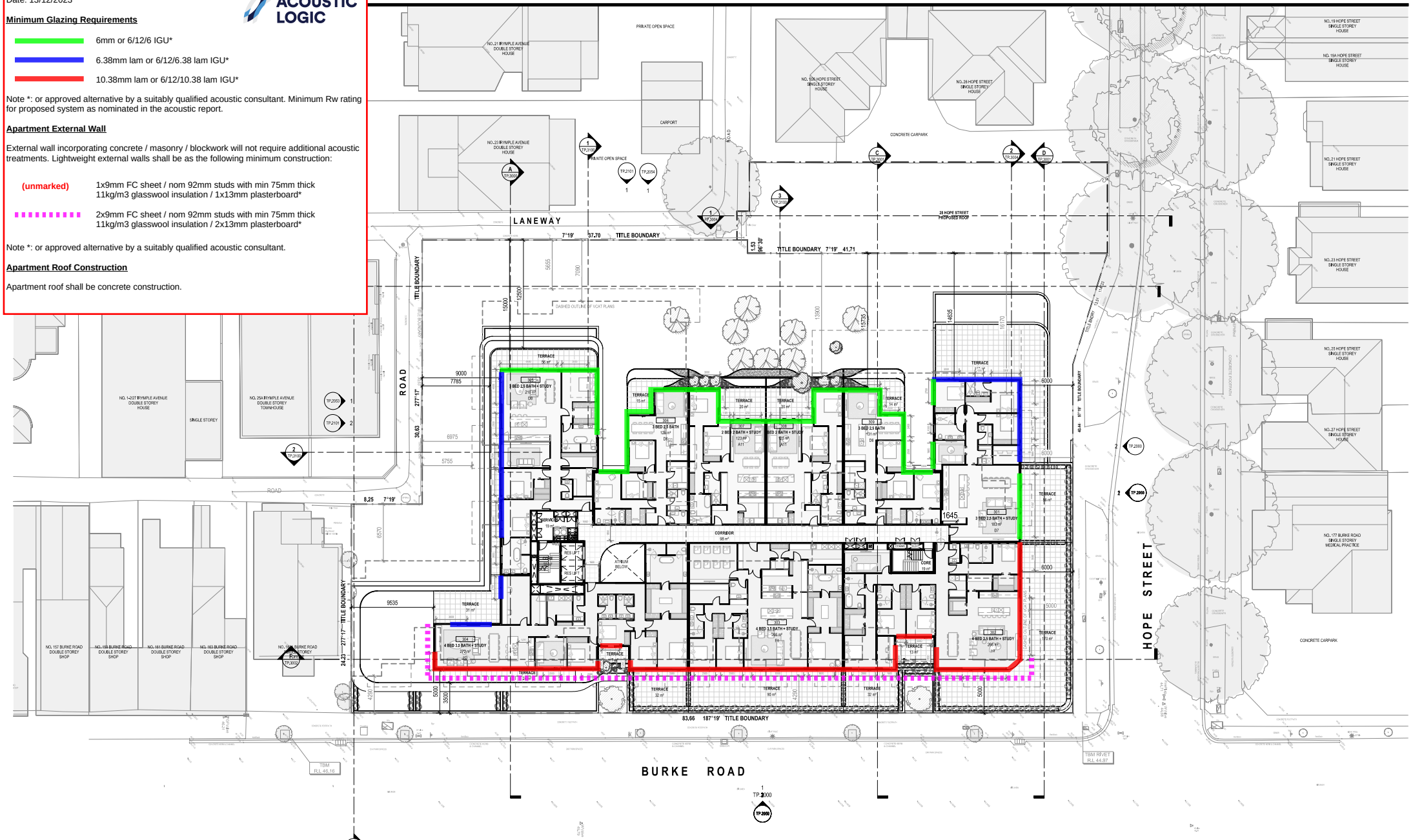
Note *: or approved alternative by a suitably qualified acoustic consultant.

**Apartment Roof Construction**

Apartment roof shall be concrete construction.

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DRAFT - NOT FOR ISSUE
28/11/2023

PROJECT
**BURKE ROAD**
173 BURKE ROAD GLEN IRIS
MIXED-USE DEVELOPMENT

DRAWING STATUS
**TOWN PLANNING**

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| JOB N° | 23076 |
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| DRAWN BY | KH |
| CHECKED BY | DC |

DRAWING TITLE
**LEVEL 03 PLAN**

TP.1103

Rev: 2
Date: 13/12/2023

ACOUSTIC LOGIC

**Minimum Glazing Requirements**

- 6mm or 6/12/6 IGU*
- 6.38mm lam or 6/12/6.38 lam IGU*
- 10.38mm lam or 6/12/10.38 lam IGU*

Note *: or approved alternative by a suitably qualified acoustic consultant. Minimum Rw rating for proposed system as nominated in the acoustic report.

**Apartment External Wall**

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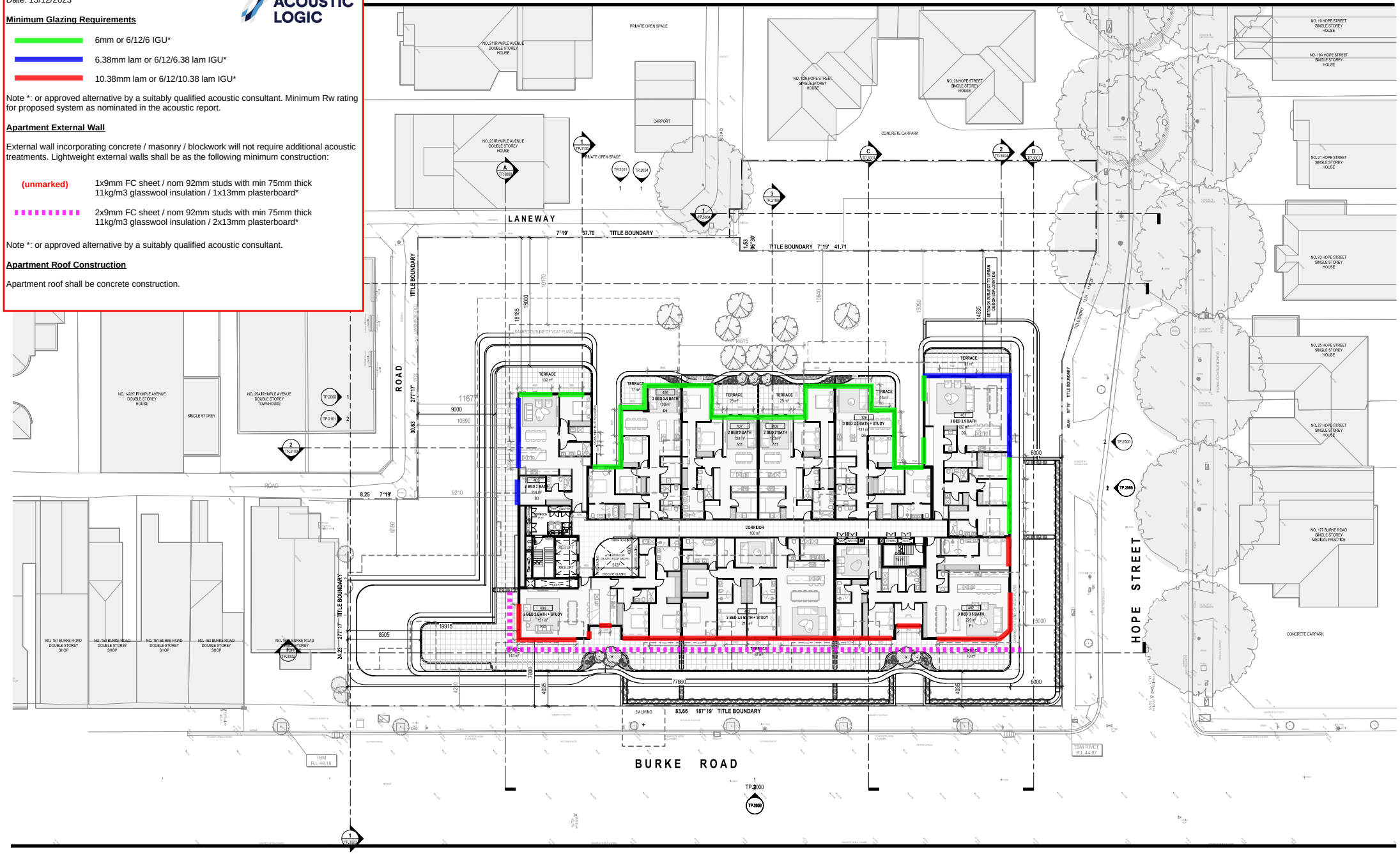
2x9mm FC sheet / nom 92mm studs with min 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard*

Note *: or approved alternative by a suitably qualified acoustic consultant.

**Apartment Roof Construction**

Apartment roof shall be concrete construction.

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28/11/2023

PROJECT
**BURKE ROAD**
173 BURKE ROAD GLEN IRIS
MIXED-USE DEVELOPMENT

DRAWING STATUS
**TOWN PLANNING**

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| DRAWN BY | KH |
| CHECKED BY | DC |

DRAWING TITLE
**LEVEL 04 PLAN**

TP.1104