

Life in Medium Density Housing  
in Tāmaki Makaurau / Auckland

## Chapter 6

# Outdoor living spaces



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## **Overview of the Life in Medium Density Housing in Tāmaki Makaurau / Auckland report**

The *Life in Medium Density Housing in Tāmaki Makaurau / Auckland* study was undertaken by Auckland Council's Economic and Social Research and Evaluation team and Tāmaki Makaurau Design Ope (TMDO) in 2023. The primary purpose of the research was to investigate how Aucklanders are experiencing living in recently built medium density housing (MDH).

The results of this research will support everyone involved in the delivery of housing in Auckland (including Auckland Council, central government, developers) to improve future MDH, and ultimately the wellbeing of Aucklanders, through consenting processes, design guidance and land use planning. It will also enable better informed choices by Aucklanders looking to live in MDH.

This study involved a number of methods including a rapid literature review, geospatial analysis to identify recently developed MDH across the Auckland region, an online survey of 1337 participants living in MDH, analysis of the consented plans of 110 properties whose residents participated in the survey, and 20 in-depth in-home immersions which collectively provides a comprehensive view of how people experience their MDH.

This report is divided into 10 chapters and 13 appendices:

Main report:

- Chapter 1: Introduction
- Chapter 2: Legislation and policy context
- Chapter 3: Research method and sample
- Chapter 4: Indoor spaces for living
- Chapter 5: Storage, laundries and bathrooms
- Chapter 6: Outdoor living spaces
- Chapter 7: Indoor environment
- Chapter 8: Carparking and vehicle storage
- Chapter 9: Shared facilities
- Chapter 10: Discussion and recommendations

Appendices:

- 1: References
- 2: NPS-UD and Auckland Regional Policy Statement objectives and policies
- 3: Survey invitation letter and reminder postcard
- 4: Survey consent form
- 5: Survey questionnaire
- 6: Standalone houses excluded from the sample
- 7: Survey sample characteristics
- 8: In-home immersion screener survey
- 9: In-home immersion discussion guide
- 10: Design attributes for analysis of consented plans
- 11: Map of broad geographic study areas
- 12: Study limitations
- 13: Codes for open ended responses

Each chapter is provided as a separate PDF and can be accessed on the Knowledge Auckland website. A summary report with key findings is also available on the Knowledge Auckland website.

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### **Introduction to this chapter**

This chapter covers multiple aspects of outdoor living spaces in medium density housing (MDH) including how well the number and size of these spaces is meeting the needs of participating households, environmental aspects of the spaces (e.g. privacy, sunlight and shade), and the impact of site facilities (e.g. washing line, storage shed, heat pump units) being present in these spaces. Outdoor living spaces featured frequently in comments made by the survey participants when asked what they like and dislike about their home, as well as modifications made to their home. The final section summarises the chapter.

# 1 Best practice and regulations

Outdoor living spaces are an extension of the home. They should be well-connected to the internal living areas and of a functional size to accommodate a range of uses including passive recreation, play areas for children, opportunities for gardening and for entertaining guests. The size, dimension, sunlight access and privacy of these spaces can all have an impact on their amenity and functionality for occupants.

Terraced houses and duplexes typically have their outdoor living space at ground level, while apartments typically provide a balcony or rooftop terrace.

## **Auckland Unitary Plan**

The Auckland Unitary Plan (AUP) encourages dwellings to provide useable and accessible outdoor living space.<sup>1</sup> For MDH developments of four or more dwellings, provision of outdoor living space is not a standard (rule) for compliance, but a matter for assessment as part of a resource consent application.<sup>2</sup> The purpose of the standard is to provide dwellings with an outdoor living space that is of a functional size and dimension, has access to sunlight, and is accessible from the dwelling.<sup>3</sup>

MDH developments of four or more dwellings are assessed through the resource consent process as to the extent to which they achieve the following:

- Dwellings with a ground floor level to have an outdoor living space of at least 20m<sup>2</sup> that comprises a ground level space (with a minimum dimension of 4m and gradient not exceeding 1 in 20) and/or a balcony/roof terrace space (minimum dimension of 1.8m and area of at least 5m<sup>2</sup>).
- Dwellings above ground floor (such as apartments) must have a balcony, patio or roof terrace that is at least 5m<sup>2</sup> for a studio or one-bedroom dwelling, or 8m<sup>2</sup> for dwellings with two or more bedrooms, both with a minimum dimension of 1.8m. Except that where the net internal floor area is at least 35m<sup>2</sup> for a studio and 50m<sup>2</sup> for one or more bedrooms, no outdoor living space is required.
- Outdoor living spaces that are located south of any building located on the same site, must have an increased depth to ensure that adequate sunlight access is provided to the space.<sup>4</sup>
- Privacy is provided between the outdoor living space of adjacent dwellings on the same site and between outdoor living space and the street.

The changes introduced to the outdoor living space standard by AUP Plan Change 16 removed the requirement for the outdoor living space to be accessible from the kitchen, dining space or lounge,

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<sup>1</sup> E.g. Mixed Housing Urban Policy H5.3(6).

<sup>2</sup> E.g. Mixed Housing Urban Assessment Criterion H5.8.1(2)(2)(b)(vi).

<sup>3</sup> E.g. Mixed Housing Urban Standard H5.6.14 Outdoor living space Purpose.

<sup>4</sup> E.g. Standard H5.6.14 – Where an outdoor living space is located south of any building located on the same site, the southern boundary of that space must be separated from any wall or building by at least 2m +0.9(h), where (h) is the height of the wall or building. For the purposes of this standard, south is defined as between 135 and 225 degrees.

meaning that outdoor spaces are now permitted to be accessed via any room, including a bedroom or garage.

The figures below demonstrate typical outdoor living spaces for terraced houses and an apartment.

Figure 1: 20m<sup>2</sup> outdoor living space of terraced houses

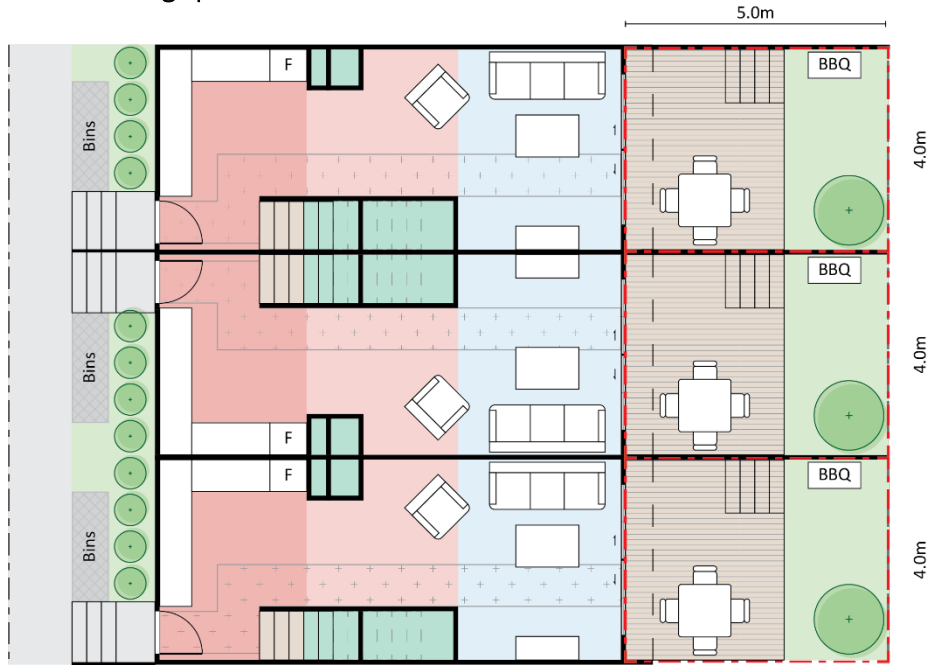


Figure 2: Apartment balcony of 6.5m<sup>2</sup>

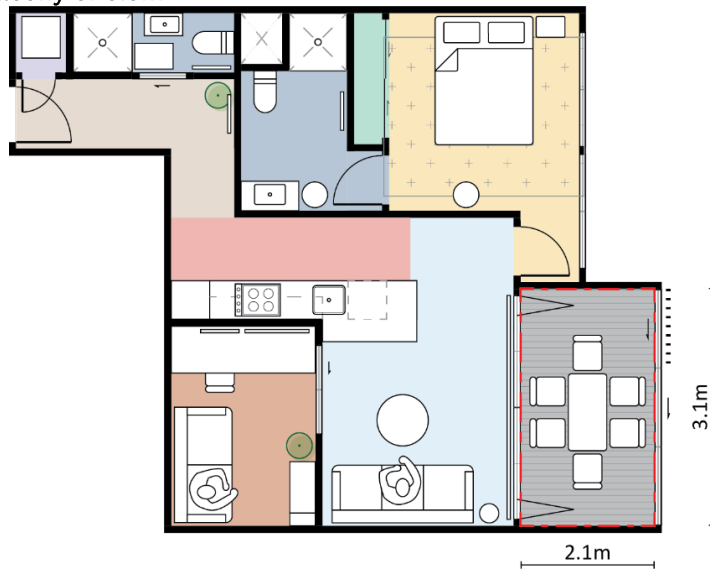


Figure 3: Ground level outdoor living spaces (not meeting minimum 4m dimension) accessed from a garage and a first-floor balcony accessed from the lounge



Note: The third storey contains three bedrooms (not shown).



## **Auckland Design Manual (ADM) and best practice guidance**

The *Auckland Design Manual* (ADM) recognises that outdoor living spaces are highly valued and in the context of MDH, can offset the smaller internal living areas and improve the overall liveability of a development. It recommends that outdoor living spaces have good sunlight access (minimum five hours of sunlight in autumn), are directly and conveniently connected to the internal living spaces, and should provide for a range of uses.<sup>5</sup> Landscape treatment for mature trees and food production should also be considered.

The ADM also recommends that balconies and outdoor living spaces are oriented towards the street or the backyard, rather than into neighbouring properties, and that a change in level is introduced between ground floor private space (both indoor and outdoor) and public or communal spaces.<sup>6</sup>

Outdoor living spaces should be of a size and dimension to accommodate a table and/or seating for the intended number of occupants. All best practice guidance recommends that private outdoor living spaces are accessible and located adjacent to internal living areas and are oriented for good levels of sunlight throughout the year. Australian best practice guidance recommends that outdoor living spaces are provided with shade by canopy trees and other shading structures and that paving and surface materials that lower surface temperatures and reduce heat absorption are utilised. Kāinga Ora's *Ngā Paerewa Hoahoa Whare Design Requirements* (hereafter, referred to as the Kāinga Ora Design Requirements) also encourages shade and shelter from the prevailing wind.

Privacy within outdoor living spaces is best achieved when located to the 'back' of a dwelling rather than facing a public street or shared accessway. For upper-level outdoor living spaces on balconies and rooftop terraces, it is generally recommended that balconies are oriented away from adjacent or neighbouring private open spaces to ensure adequate privacy is maintained to those properties, with careful design of balustrades/screening devices.

The *National Medium Density Housing Design Guide* recommends that ground-level outdoor living spaces have direct access to well-used internal living areas and are designed to allow flexibility to configure private space for outdoor furniture, raised gardens, or other uses.<sup>7</sup> Consideration should also be given to adequate utility space, such as washing lines and garden sheds, while also considering the concepts of tapu and noa.<sup>8</sup>

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<sup>5</sup> *Auckland Design Manual*, Terraced Housing Design, Section 5 Outdoor Spaces; Apartment Design, Section 5 Outdoor Spaces.

<sup>6</sup> *Auckland Design Manual*, Terraced Housing Design, Section 3.5 Respect the neighbours.

<sup>7</sup> Ministry for the Environment. (2023). *National Medium Density Design Guide*, Section 5 Around the house: and integrated landscape, Clauses C, D, H and I.

<sup>8</sup> 'Tapu' can be interpreted to mean 'sacred' and can be associated with restrictions. 'Noa' is the opposite of tapu, meaning ordinary, normal or unrestricted.

Table 1: Best practice guidance for size and dimension of ground-level outdoor living spaces

| Number of bedrooms | Auckland Unitary Plan            | Auckland Design Manual | National Medium Density Design Guide | Public Housing Design Guidance and Kāinga Ora Design Requirements | NSW Apartment Design Guide   | NSW Low Rise Medium Density Design Guide | Victoria Apartment Design Guide  |
|--------------------|----------------------------------|------------------------|--------------------------------------|---|------------------------------|--|----------------------------------|
| Studio             | 20m <sup>2</sup><br>4m dimension | N/A                    | N/A                                  | N/A   | 15m <sup>2</sup><br>3m depth | 45m <sup>2</sup><br>4m dimension         | 25m <sup>2</sup><br>3m dimension |
| 1 bedroom          |                                  |                        |                                      | 20m <sup>2</sup>  |                              |  |                                  |
| 2 bedrooms         |                                  |                        |                                      | 20m <sup>2</sup>  |                              |  |                                  |
| 3 bedrooms         |                                  |                        |                                      | 35m <sup>2</sup>  |                              |  |                                  |
| 4 or more bedrooms |                                  |                        |                                      | 50m <sup>2</sup>  |                              |  |                                  |

Table 2: Best practice guidance for size and dimension of balconies

| Number of bedrooms | Auckland Unitary Plan (minimum area and depth) | National Medium Density Design Guide (minimum depth) | Public Housing Design Guidance and Kāinga Ora Design Requirements (minimum area and depth) | NSW Apartment Design Guide (minimum area and depth) | Victoria Apartment Design Guide (minimum area and depth) |
|--------------------|--|--|--|---|--|
| Studio             | 5m <sup>2</sup> and 1.8m                       | 1.8-2.4m   | N/A  | 4m <sup>2</sup>                                     | 8m <sup>2</sup> and 1.8                                  |
| 1 bedroom          |  |  | 8m <sup>2</sup> and 2m   | 8m <sup>2</sup> and 2m                              | 8m <sup>2</sup> and 1.8m                                 |
| 2 bedrooms         | 10m <sup>2</sup> and 2m                        |  | 10m <sup>2</sup> and 2m  | 8m <sup>2</sup> and 2m                              |  |
| 3 bedrooms         | 10m <sup>2</sup> and 2.5m                      |  | 12m <sup>2</sup> and 2.4m  | 12m <sup>2</sup> and 2.4m                           |  |
| 4 bedrooms         | 10m <sup>2</sup> and 2.5m                      |  | 12m <sup>2</sup> and 2.4m  | 12m <sup>2</sup> and 2.4m                           |  |

Note: The New South Wales *Low Rise Medium Density Design Guide* recommends a 4m depth, only if a balcony is provided.

Sources:

- Auckland Unitary Plan, Mixed Housing Urban Standard H5.6.14 Outdoor living space.
- Ministry for the Environment. (2023). *National Medium Density Guide*, Section 5, Rule of Thumb.
- Ministry of Housing and Urban Development (2023). *Public Housing Design Guidance for Community Housing Providers and Developers* (Version 2.1 web), Section 3.6.
- Kāinga Ora Homes and Communities. (2024). *Ngā Paerewa Hoahoa Whare Design Requirement* (Version 1.1), Table A2.1-1.
- New South Wales Department of Planning and Environment. (2015). *Apartment Design Guide*, Part 4 Designing the Building, Design criteria 4E-1, 1 and 2.
- State of Victoria Department of Environment, Land, Water and Planning. (2021). *Apartment Design Guidelines for Victoria*, Section 3 – Standard D19.

### Section 35 (s35) monitoring

The AUP identifies primary outdoor living space as a key component of delivering high-quality built environments. Auckland Council’s s35 monitoring found that overall, “the performance of primary outdoor living spaces shows a trend that the AUP is not performing as well as it could for the health and wellbeing of residents”.<sup>9</sup> The quality and performance of outdoor living spaces as spaces for children to play and residents to use for passive recreation, gardening or other uses were impacted by:

<sup>9</sup> Auckland Council. (2022). *Auckland Unitary Plan Section 35 Monitoring*, B2.3 A quality built environment, pages 81-82.

- The placement of utilities within the outdoor living space, such as heat pump units, hot water cylinders, sheds, water tanks, and waste/recycling storage – effectively reducing the space to a service courtyard.
- Privacy effects where outdoor space is oriented towards a public street or driveway and an occupant desire to provide higher fencing than the AUP permits, reducing passive surveillance of public and semi-public spaces.
- The cumulative effects of multiple outdoor living spaces adjoining each other in terms of potential for overlooking and privacy effects as well as acoustic privacy.
- Maintenance of outdoor living spaces, particularly lawnmower access for grassed areas, and the proportion of grassed areas that have been replaced with other materials such as artificial turf or pavers to reduce maintenance requirements.
- Lack of space for planting of scale within outdoor living spaces and, more generally, poor implementation of landscape plans and maintenance of landscaped areas across the site.
- The AUP requires sunlight to outdoor living spaces at the equinox but not in mid-winter when residents most need sunlight for their health and wellbeing. Up to a quarter of the developments in the residential sample could have sunlight to some outdoor living spaces compromised due to south-facing orientation or overshadowing by structures and buildings during mid-winter.

It was too soon for the monitoring to identify the effects of the recent Plan Change 16 on the functionality, location and orientation of outdoor living spaces.<sup>10</sup>

### **Design observations**

The following design matters have been observed by the council's Tāmaki Makaurau Design Open (Urban Design Unit) in their technical review and monitoring of resource consent applications for MDH:

- Poor connectivity between outdoor living space and internal living rooms, with an increasing number of outdoor spaces accessed via bedrooms (creating privacy conflicts) or garages.
- Outdoor living spaces that front onto a public street, shared vehicle space or pedestrian accessway have reduced privacy, which may lead to additional or higher fencing/screening being implemented by occupants. A reliance on permeable pool type fencing to maintain opportunities for passive surveillance often does not provide sufficient privacy for users of outdoor living spaces and can lead to further screening being added.
- An increased use of artificial turf in outdoor living spaces due to reduced maintenance requirements, also reducing opportunities for landscape treatment and broader contribution to onsite amenity and biodiversity.

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<sup>10</sup> Plan Change 16 (PC16) included a series of changes to correct errors and inconsistencies in all AUP zones and definitions. With respect to outdoor living space, the purpose of the standard included a requirement for outdoor living space to be directly accessible from a kitchen, dining or lounge space, which did not carry through to the wording of the standard itself. PC16 sought to include this requirement in the standard, but the reference was deleted in its entirety from both the purpose of the standard and the standard itself by the Independent Hearings Panel. This means that outdoor living space is now permitted to be accessed from 'non-living' spaces such as bedrooms, laundries or garages.

- Poor consideration of the location and impact of site facilities on functionality and amenity of outdoor living spaces.
- Impacts of retaining walls and fencing on amenity and sunlight access to outdoor living spaces.

The figures below illustrate some of these issues.

**Figure 4: Outdoor living space with hot water cylinder, storage shed and washing line**



Note: Deck is too narrow to accommodate seating for table and chairs. Source: Raywhite.

**Figure 5: Outdoor living space with artificial turf, storage shed, washing line, external heat pump units and hot water cylinder (screened)**



Source: TMDO, Auckland Council.

**Figure 6: Outdoor living space almost entirely decked, with heat pump unit, water tank pump and washing line**



Source: Barfoot and Thompson.

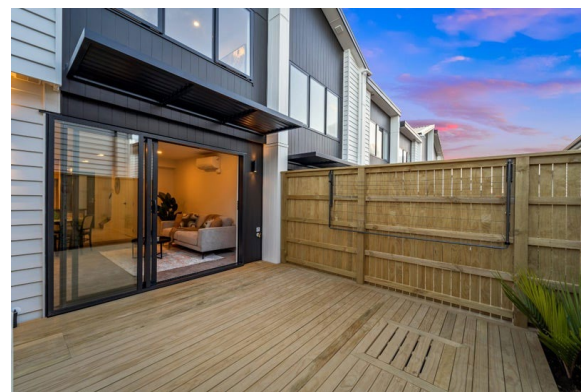


Figure 7: Outdoor living space entirely decked with canopy for shade



Source: TMDO, Auckland Council.

Figure 8: Outdoor living space fronting a street with additional screening (weed mat and brushtix) added to permeable pool fence



Note: Curtains also closed to first-floor bedroom windows. Source: Google Maps.

Figure 9: Outdoor living space overlooking a communal parking area, with additional screening added to permeable pool fence



Source: TMDO, Auckland Council.

Figure 10: Outdoor living space and primary outlook from living space overlooking the street with additional screening added to balcony balustrade



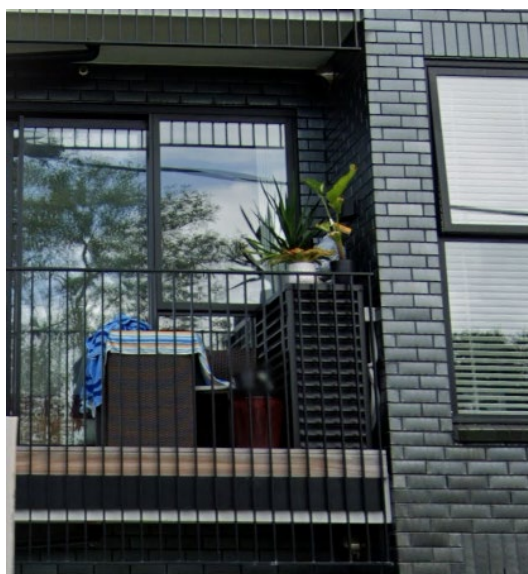
Source: TMDO, Auckland Council.

Figure 11: Screened heat pump unit in ground floor apartment outdoor living



Source: TMDO, Auckland Council.

Figure 12: Screened heat pump unit used as bench for pot plants on apartment balcony



Source: Google Maps.

## 1.1 Site facilities

Facilities such as hot water cylinders and external heat pump units can be (and often are) placed in outdoor living spaces. Different site facilities take up different amounts of space and their presence can limit the remaining available space for outdoor activities, furniture and people.

Table 3 below describes the standard dimensions of common site facilities found in MDH in Auckland, and Figures 13 to 18 on the following page show examples of site facilities in outdoor living spaces.

Table 3: Sizes of standard site facilities

| Site facility  | Standard footprint dimension (m <sup>2</sup> ) |
|--|--|
| Refuse bins (Auckland Council kerbside collection landfill, recycling, and food scraps combined) <sup>11</sup> | 1.4  |
| Rainwater tank <sup>12</sup>   | 1.8-3.2  |
| Hot water cylinder <sup>13</sup>   | 0.26   |
| Storage shed <sup>14</sup>   | 2.3  |
| Washing line <sup>15</sup>   | 2.9  |
| External heat pump unit <sup>16</sup>  | 0.28   |
| <b>Total possible site facilities in outdoor space</b>   | <b>8.9-10.34</b>                               |

If all these possible facilities were placed in the minimum required 20m<sup>2</sup> outdoor living space, it could take up half of the total outdoor living space.<sup>17</sup> The National Medium Density Design Guide recognises this and recommends that when planning outdoor living space that sufficient utility space is also provided for.<sup>18</sup>

<sup>11</sup> *Auckland Design Manual*, Residential Design Element R7: Design for waste.

<sup>12</sup> Various models range in size from 1000-7000 litres.

<sup>13</sup> 250 litre hot water cylinder suitable for 2-5 people, 1.55m high x 0.58m wide. <https://www.cylinderdirect.nz/blog/what-size-hot-water-cylinder-do-we-need>

<sup>14</sup> 1.52m x 1.52m shed.

<sup>15</sup> 24 lineal metre line – 2.2m width x 1.3m depth.

<sup>16</sup> Average of 10 different heat pump models ranging from 5.2-16kilowatts.

<sup>17</sup> Auckland Council. (2022). *Auckland Unitary Plan Section 35 Monitoring*, B2.3 A quality built environment, Typical dimensions of common utilities, page 78.

<sup>18</sup> Ministry for the Environment. (2023). *National Medium Density Design Guide*, Section 5(I) Around the house.



Figure 13: External heat pump unit, pipes and water tank pump in outdoor living space



Figure 14: Rainwater tank in an outdoor living space



Source: TMDO, Auckland Council.

Figure 15: Storage shed and storage bins in outdoor living space



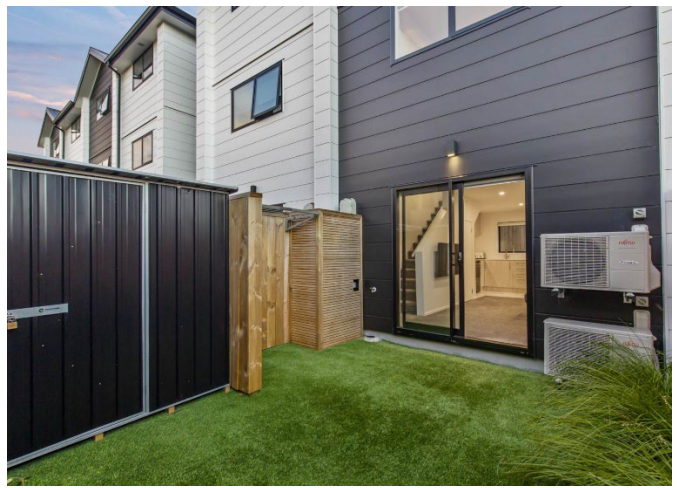
Figure 16: Washing line and external heat pump unit in outdoor living space



Figure 17: Washing line and storage shed in outdoor living space



Figure 18: Storage shed, washing line, screened hot water cylinder and heat pump units in outdoor living space



Source: TMDO, Auckland Council.

## 2 Research findings

This section presents the research findings on outdoor living spaces and is organised by topic. The section presents the results of the survey, consented plans analysis and in-home immersions. Results on the number and types of outdoor living spaces are in Section 2.1; Section 2.2 focuses on the size of outdoor living spaces; a range of environmental aspects such a connection with indoor living spaces and privacy are the focus of Section 2.3; and Section 2.4 discusses site facilities within outdoor living spaces from the in-home immersions. Outdoor living spaces were a common topic in the survey participant's comments about their likes and dislikes. Themes in the participants' open text responses regarding outdoor living spaces are discussed in Section 2.5.

### 2.1 Number and types of outdoor living spaces

#### 2.1.1 Survey results

The survey participants who had indicated they had some form of outdoor living space were asked to indicate which types of outdoor living spaces were part of their home, from a list of three possible options:<sup>19</sup> living space at ground level (e.g. deck, patio, garden), living space above ground level (e.g. deck or balcony), and rooftop garden or other rooftop space. Participants could select more than one option.

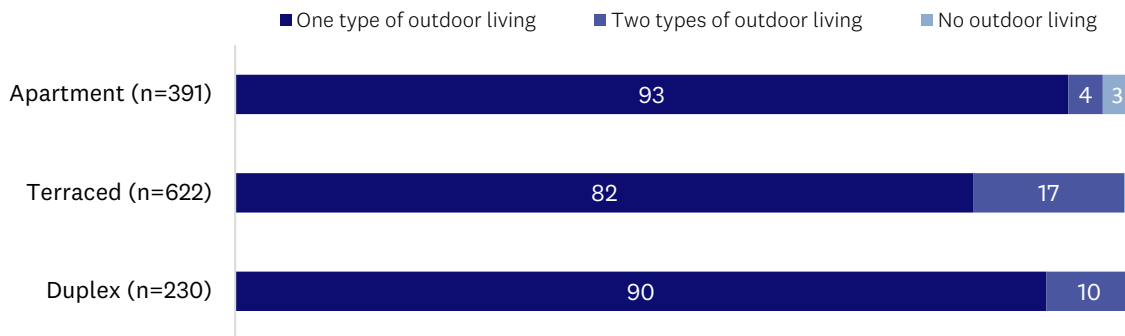
Nine in ten (87%) households reported having only one type of outdoor living space (e.g. only a ground-level space or only a balcony). Those who stated they lived in an apartment were more likely to have reported only one type of outdoor living space (93%) compared with those in terraced houses (82%) (Figure 19) and that tended to be a balcony (Figure 20).

Households in terraced houses (17%) or duplexes (10%) were more likely to have reported two types of outdoor living spaces (most likely a ground-level space and a balcony) compared with those in apartments (4%).

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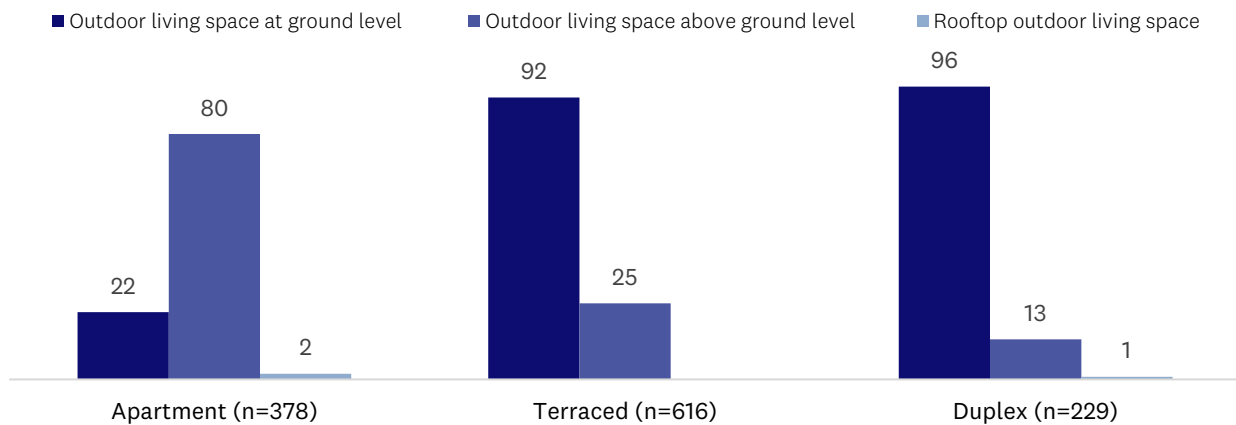
<sup>19</sup>The survey did not ask participants directly whether their property included any form of outdoor space. The presence of outdoor space, or not, was calculated by responses to question 16 in the survey: 'How well do the number of rooms and spaces in your home meet the needs of your household?' If participants provided a response to the item 'Number of outdoor living spaces', they were assumed to have at least one (this excludes those who responded that they did not have that space in their home). The majority of participants (98%) were interpreted to have some form of outdoor living space – only 20 participants reported not having an outdoor living space. Those with outdoor living spaces were then asked Question 19 further on: 'Which of the following outdoor living areas are part of your home?' (See the survey questionnaire in Appendix 5.)

Figure 19: Number of reported types of outdoor living spaces, by typology (%)



Balconies were the most frequently reported type of outdoor living space among those living in apartments (80%). A quarter (22%) of the participants living in apartments reported having a ground-level outdoor living space. Ground-level outdoor living spaces were the most frequently reported type of outdoor living for terraced houses (92%) and duplexes (96%).

Figure 20: Reported types of outdoor living spaces, by typology (%)

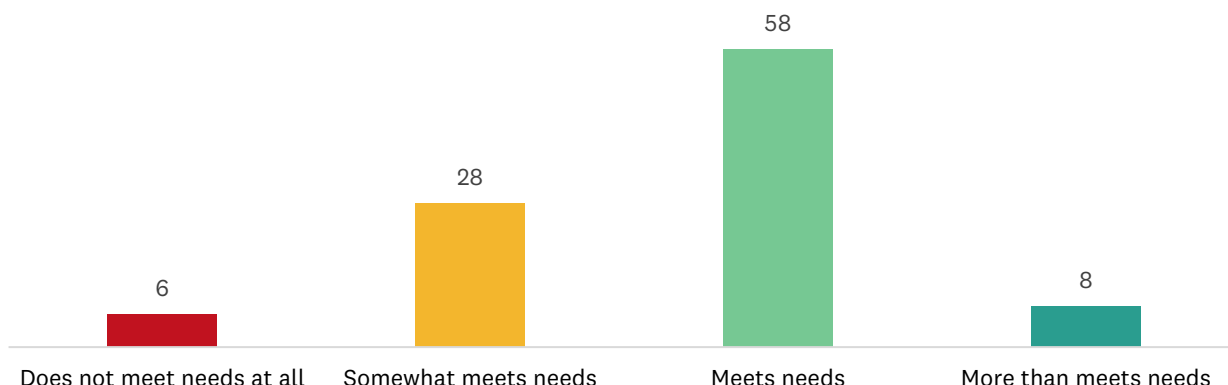


Note: Multiple responses allowed; therefore, total does not sum to 100.

As mentioned above, participants were asked how well the number of outdoor living spaces meets the needs of the household. Over half (58%) reported the number of spaces ‘meet the needs’ of the household, and 28 per cent reported the number of spaces ‘somewhat meets needs’.

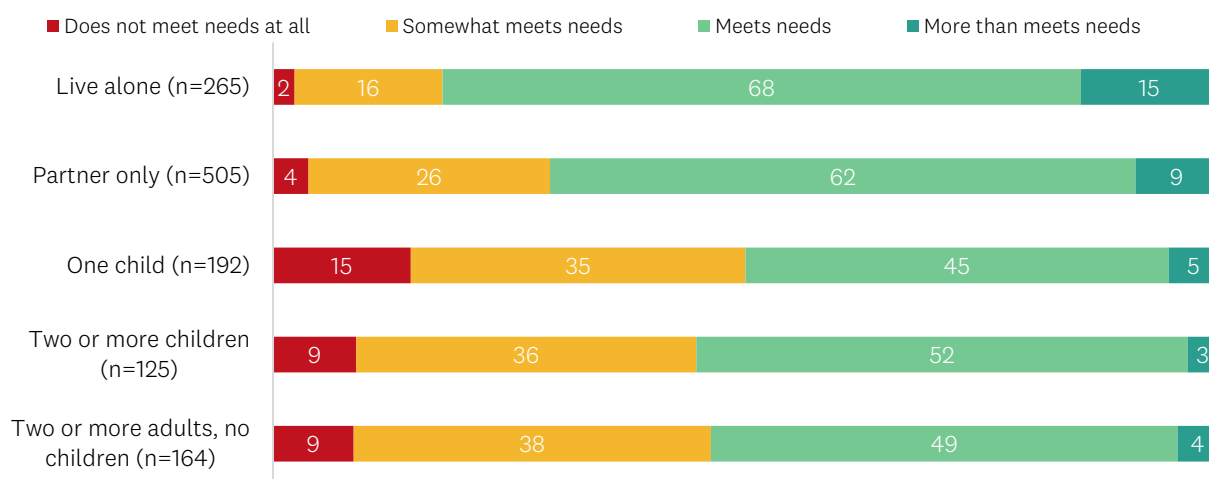
There were differences in how well the number of outdoor living spaces met the needs of different household compositions. As Figure 22 shows, households with one child (15%), two or more children (9%) or with two or more adults, no children (9%) were more likely to have reported that the number of outdoor living spaces ‘does not meet needs at all’ compared with those who live alone (2%). These same household compositions were more likely to have reported that the number of outdoor living spaces ‘somewhat meets needs’: one child (35%), two or more children (36%), and two or more adults, no children (38%), compared with those who live alone (16%).

Figure 21: Participants’ rating of how well the number of outdoor living spaces meets the needs of the household (n=1317) (%)



Note: Base is all participants with an outdoor living space.

Figure 22: How well the number of outdoor living spaces meets the needs of the household, by household composition (%)



Note: Base is all participants with an outdoor living space.

Participants living in an apartment were more likely to report the number of outdoor living spaces ‘meets needs’ (66%) or ‘more than meets needs’ (13%) compared with those in a terraced house (54% and 6%, respectively) or duplex (55% and 5%, respectively). Similarly, those living in terraced homes and duplexes were more likely to report the number of outdoor living spaces ‘somewhat meets needs’ (32% terraced, 35% duplex) compared with those in apartments (17%). This finding is expected given the correlations between household composition and typology: households with children were less likely to live in apartments (see Chapter 3, Section 4.1: Household composition by housing typology).

### 2.1.2 Consented plans

As described in Chapter 3, this study included analysis of the consented floor plans for 110 properties whose households had participated in the survey.

The analysis found a correlation between the types of outdoor living spaces and housing typologies (Table 4). For example, balconies or decks above ground level were most common in apartments, with 77 per cent of the apartments having a balcony.

**Table 4: Number of balconies and decks above ground level, by typology**

|      | Apartment |    | Terraced |    | Duplex |    |
|------|-----------|----|----------|----|--------|----|
|      | count     | %  | count    | %  | count  | %  |
| None | 6         | 23 | 56       | 89 | 15     | 75 |
| One  | 20        | 77 | 4        | 6  | 5      | 25 |
| Two  | —         | —  | 3        | 5  | —      | —  |

Patios and paved, decked or grassy outdoor living spaces at ground level were more common in terraced houses and duplexes, with 90 per cent of terraced houses and 85 per cent of duplexes having one or more ground-level outdoor living spaces (Table 5). A quarter (23%) of apartments had a ground-level outdoor living space.

**Table 5: Number of patios, paved, decked or grassy outdoor living spaces at ground level, by typology**

|      | Apartment |     | Terraced |     | Duplex |     |
|------|-----------|-----|----------|-----|--------|-----|
|      | count     | %   | count    | %   | count  | %   |
| None | 20        | 77% | 6        | 10% | 3      | 15% |
| One  | 5         | 19% | 53       | 84% | 11     | 55% |
| Two  | 1         | 4%  | 4        | 6%  | 6      | 30% |

Artificial turf is sometimes used as an alternative to lawn in outdoor spaces as it does not require mowing. However, it is proposed in the AUP Plan Change 78: Intensification that artificial turf is excluded from the landscaped area standard due to sustainability concerns and because it does not contribute to green space. The presence of artificial turf in outdoor spaces was not common in the consented plans. Only nine of the plans recorded artificial turf as a feature, seven of which were terraced houses. However, Council's s35 monitoring observed that some outdoor living spaces had replaced grass with artificial turf.<sup>20</sup>

## 2.2 Size of outdoor living spaces

The size of outdoor living spaces in MDH is addressed in this section, starting with the survey participants' perceptions, followed by the consented plan analysis.

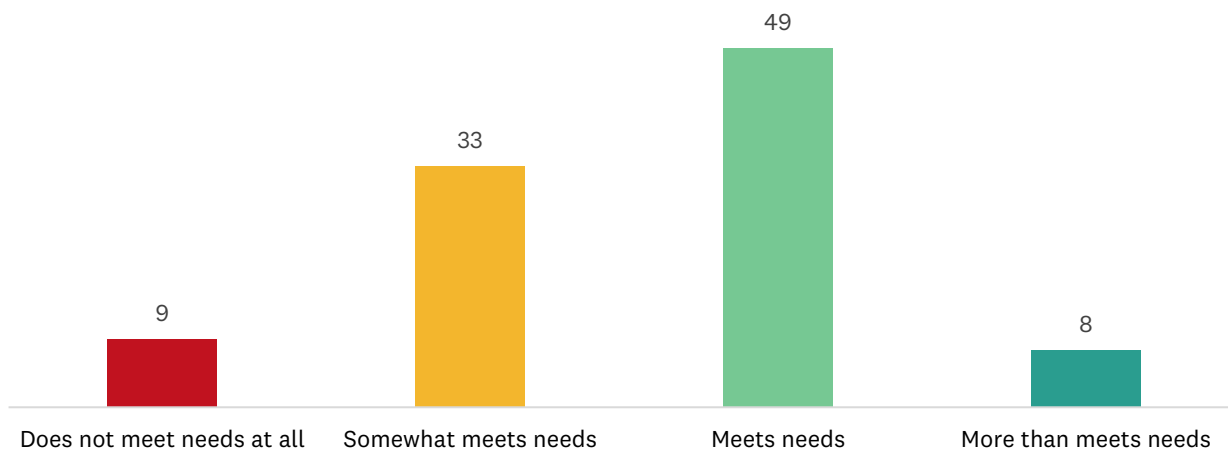
### 2.2.1 Survey results

Participants were asked how well the size of their outdoor living spaces meets the needs of the household. Half (49%) reported the size of outdoor living spaces 'meets the needs' of the household,

<sup>20</sup> Auckland Council. (2022). *Auckland Unitary Plan Section 35 Monitoring*, B2.3 A quality built environment, page 99.

while 33 per cent reported it ‘somewhat meets needs’ and 9 per cent that it ‘does not meet needs at all’.

**Figure 23: Participants’ rating of how well the size of outdoor living space(s) fits the needs of the household (n=1313) (%)**

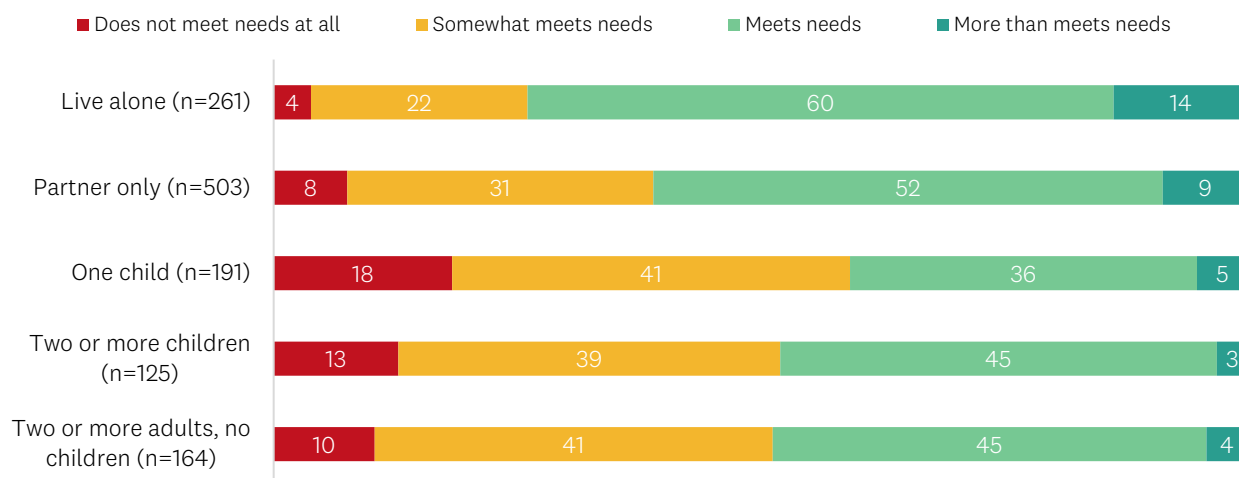


Participants with an outdoor living space at ground level were more likely to report it ‘somewhat’ meets their needs than participants with a balcony (36% compared with 28%). Similarly, those with a balcony were more likely than those with a ground-level space to report this ‘more than meets’ their needs (11% compared with 6%).

There were some differences in how well the size of outdoor living spaces is meeting the needs of households across different household compositions. Those who live alone were more likely to report the size of outdoor living spaces ‘more than meets needs’ (14%) compared with households with one child (5%), two or more children (3%) or two or more adults and no children (4%). Meanwhile households with one child (18%) or two or more children (13%) were more likely to report the size of outdoor living spaces ‘does not meet needs at all’ compared with those who live alone (4%) (Figure 24).

Similar trends in how well the size of outdoor living spaces meets the needs of the household are seen looking at the number of people in a household. Smaller households are more likely to report the size of outdoor living spaces meets the needs of their household compared with larger households. For example, households with one person are more likely to report the size of outdoor living spaces meets the needs of the household (56%) compared with households with three people (34%). Conversely, households with three people are more likely to report the size of outdoor living spaces ‘does not meet needs at all’ (20%) compared with households with one (7%) or two (7%) people.

**Figure 24: How well the size of outdoor living spaces meets the needs of the household, by household composition (%)**



Note: Base is all participants with an outdoor living space.

### 2.2.2 Consented plans

#### Size of balconies for apartments

Balconies range in size from 3.7m<sup>2</sup> to 24.8m<sup>2</sup>. The average sizes of balconies for different numbers of bedrooms are all slightly larger than the AUP minimum size. The average depth of balconies is the AUP recommended minimum of 1.8m.

**Table 6: Size of balconies (m<sup>2</sup>) and depth of balconies (m) for apartments (n=26)**

|            | Average            | Maximum            | Minimum           | AUP*              |
|------------|--------------------|--------------------|-------------------|-------------------|
| 1 bedroom  | 5.2m <sup>2</sup>  | 6.1m <sup>2</sup>  | 3.7m <sup>2</sup> | 5.0m <sup>2</sup> |
| 2 bedrooms | 11.0m <sup>2</sup> | 24.8m <sup>2</sup> | 4.3m <sup>2</sup> | 8.0m <sup>2</sup> |
| 3 bedrooms | 9.5m <sup>2</sup>  | 9.5m <sup>2</sup>  | 9.5m <sup>2</sup> | 8.0m <sup>2</sup> |
| Depth      | 1.8m               | 2.5m               | 1.0m              | 1.8m              |

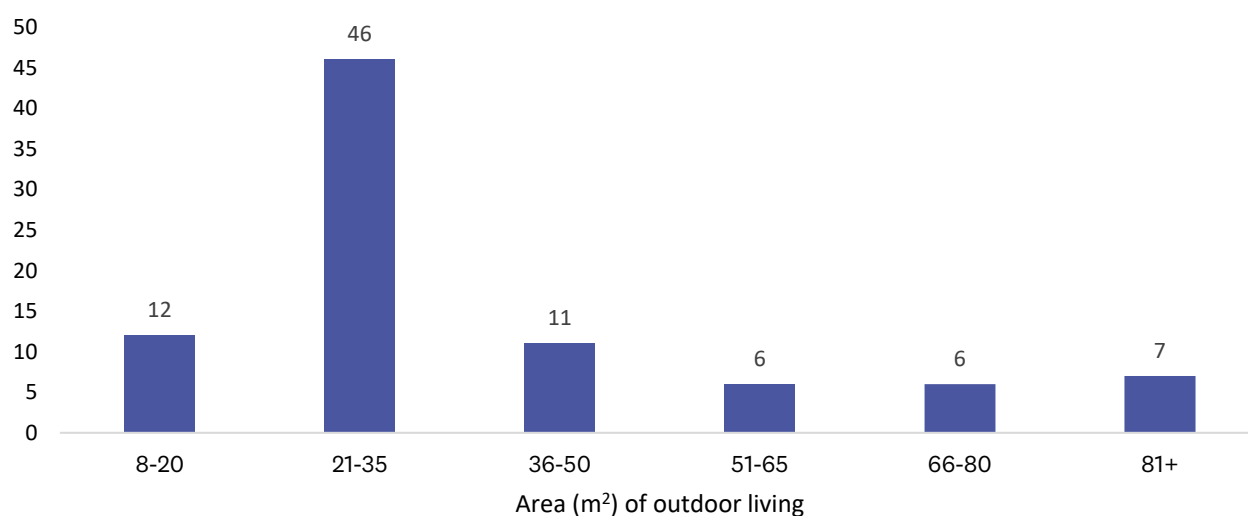
\*Source: Auckland Unitary Plan, Mixed Housing Urban Standard H5.6.14(2).

#### Size of ground-level outdoor living spaces

Apartments, terraced houses and duplexes can all have ground-level outdoor living spaces. Seven of the 28 apartments analysed had a ground-level outdoor living space. The average size of ground-level outdoor living spaces across all typologies is 37m<sup>2</sup>, and for terraced houses (n=68), the average is 34m<sup>2</sup>. One terraced house had no outdoor living space, and 12 other properties had an outdoor living space smaller than the AUP minimum of 20m<sup>2</sup>.

A small sample size prevents directly comparing survey responses on how well the size of their outdoor living space meets the needs of the household with the size of the ground-floor outdoor living spaces. The results suggest that ground-level outdoor living spaces tend to be larger than the AUP minimum of 20m<sup>2</sup>. Only 12 properties (13%) in the consented plan analysis have an outdoor living space smaller than 20m<sup>2</sup>. Survey results show that nearly half (46%) the participants with a ground-level outdoor living space reported its size ‘somewhat’ or ‘does not meet’ their needs. If the sample of consented plans analysed are indicative of the size of outdoor living spaces overall, this suggests that for a large proportion of households 20m<sup>2</sup> is considered to be too small to meet their needs. There is potential for communal outdoor living spaces to offset the size limitations of private outdoor living spaces; see Chapter 9, Section 5: Shared living facilities.

**Figure 25: Area (m<sup>2</sup>) of outdoor living space for terraced houses and duplexes (counts)**



Sixteen properties have a ground-level outdoor living space with a minimum dimension smaller than 4m. Four of these properties are ground floor apartments.

## 2.3 Environmental aspects of outdoor living spaces

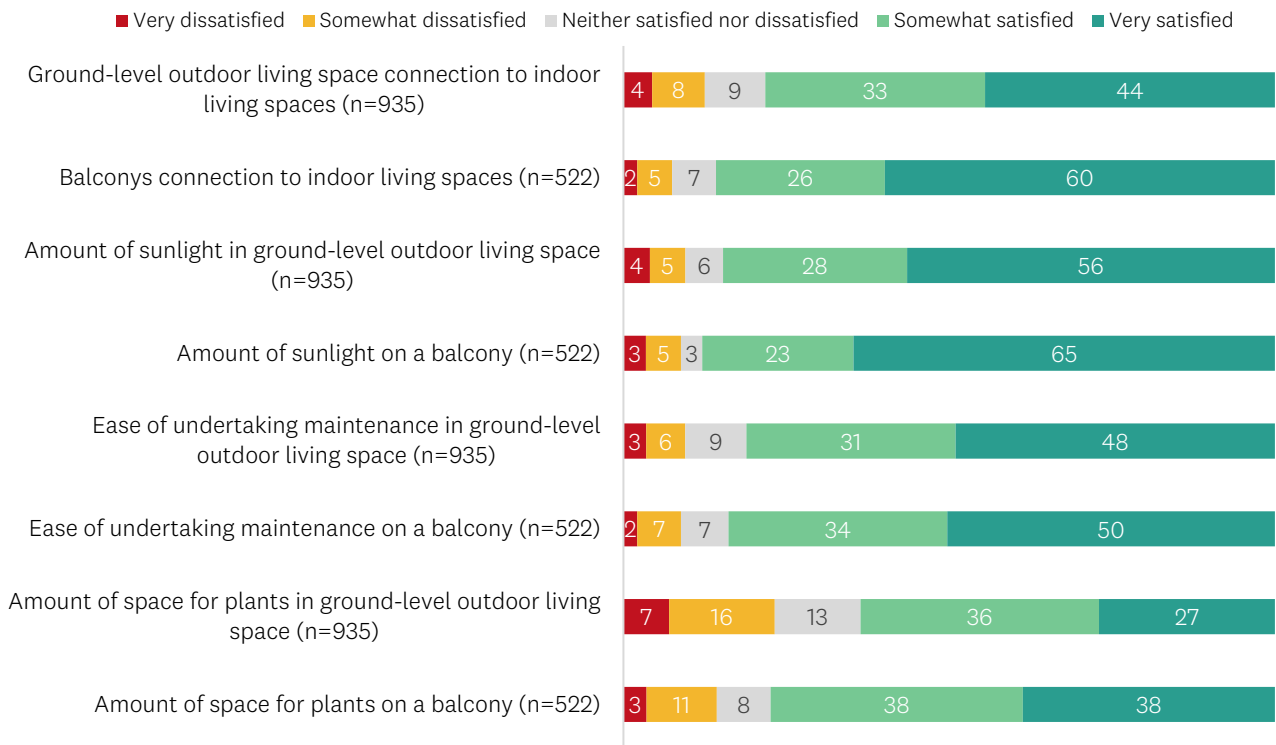
### 2.3.1 Survey results

Participants who had outdoor living spaces as part of their home were asked to rate their level of satisfaction with four aspects: connection to indoor living spaces, sunlight, ease of undertaking maintenance (e.g. gardening, cleaning, lawnmowing), and the amount of space for plants (e.g. pot plants, trees, vegetable garden, vertical garden). Results are presented below in Figure 26 from those who had an outdoor living space above ground level (e.g. balcony) and those who had an outdoor space at ground level (e.g. patio). (Note that participants could have both; these are not mutually exclusive categories.) Only 11 participants reported having a rooftop outdoor living space and so their satisfaction with aspects of this space is not reported.



Degrees of satisfaction with different aspects of outdoor living spaces are similar for the participants who have ground-level outdoor living spaces and for those with balconies.<sup>21</sup> The participants with balconies reported having slightly higher satisfaction with the amount of space for plants compared with the participants with ground-level outdoor living spaces. This may be due to differing expectations in the amount of space for plants, with less space anticipated for balconies compared with ground floor spaces.

**Figure 26: Satisfaction with aspects of outdoor living spaces at ground-level and balconies (%)**



Note: Base is all participants with an outdoor living space at ground-level or a balcony.

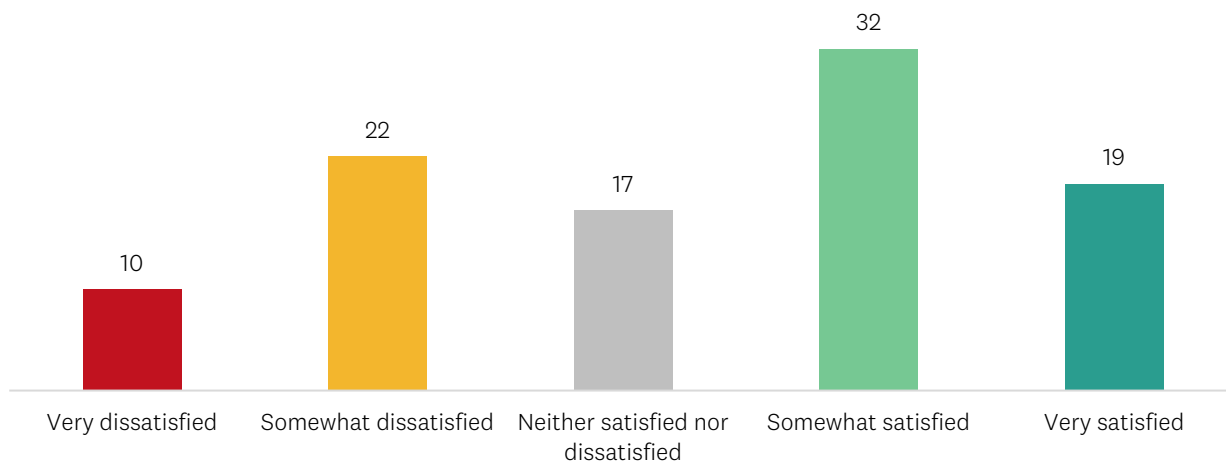
### Privacy

Participants were also asked to rate their level of satisfaction with the privacy of their outdoor living spaces.<sup>22</sup> Results were mixed. Half the participants (51%) are ‘somewhat’ or ‘very satisfied’ and a third (32%) are ‘somewhat’ or ‘very dissatisfied’.

<sup>21</sup> ‘Balcony’ is used in the sentences in the chart and refers to participants who reported having an ‘outdoor living space above ground level (e.g. balcony)’.

<sup>22</sup> Question 24 also asked them to rate levels of satisfaction with privacy inside their home. The results are discussed in Chapter 7, Section 3: Visual privacy.

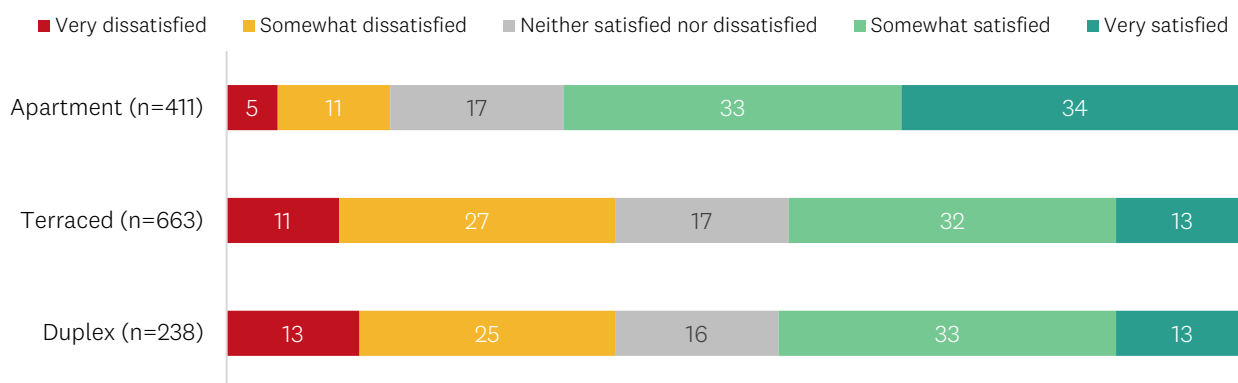
Figure 27: Participants’ rating of satisfaction with privacy in their outdoor living spaces (n=1312) (%)



Note: Base is all participants with an outdoor living space.

There were significant differences in satisfaction with privacy in outdoor living spaces by housing typology. The participants living in apartments are more likely to be ‘very satisfied’ (34%) with privacy in their outdoor living spaces compared with those in terraced houses or duplexes (both 13%). Those living in terraced houses (11%) and duplexes (13%) are more likely to be ‘very dissatisfied’ compared with those in apartments (5%).

Figure 28: Satisfaction with privacy in outdoor living spaces, by typology (%)



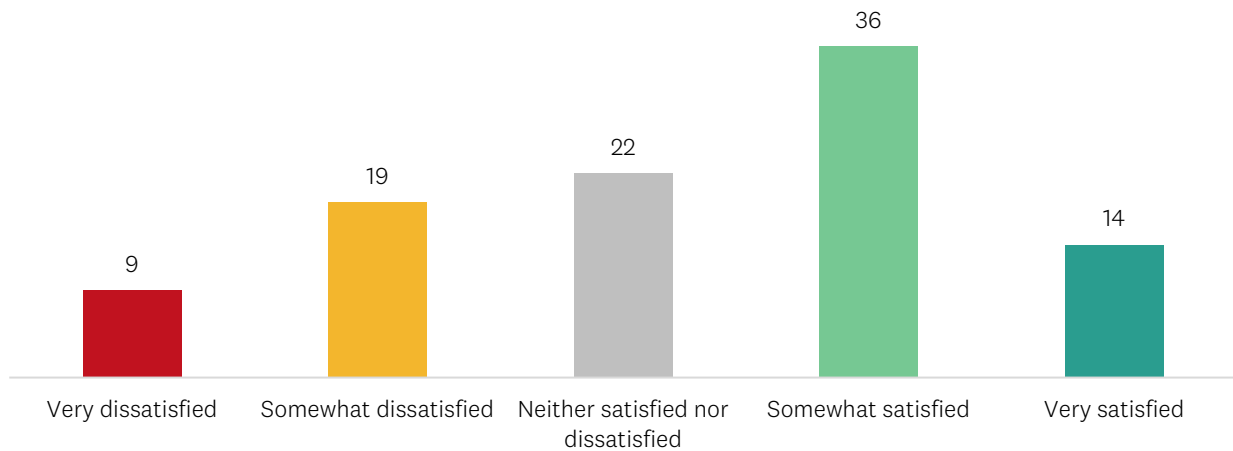
Note: Base is all participants with an outdoor living space.

### Sound

We also asked about satisfaction with sound in outdoor living spaces.<sup>23</sup> Three in ten (28%) participants were ‘somewhat’ or ‘very dissatisfied’ and 22 per cent were ‘neither satisfied nor dissatisfied’.

<sup>23</sup> Question 24 also asked them to rate levels of satisfaction with sound proofing on walls shared with their neighbours. The results are discussed in Chapter 7, Section 4: Sound and soundproofing.

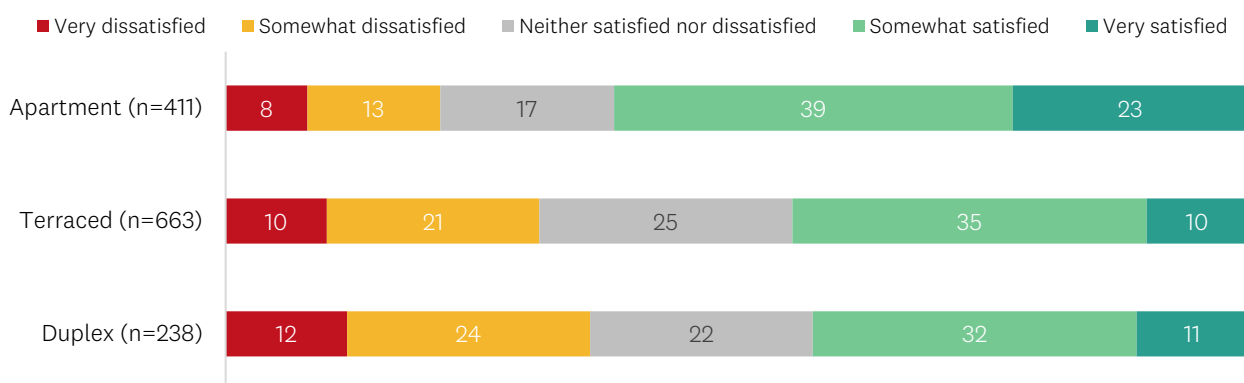
Figure 29: Participants’ rating of satisfaction with amount of sound in outdoor living spaces (n=1312) (%)



Note: Base is all participants with an outdoor living space.

This pattern was consistent across typologies (Figure 30). Participants living in terraced houses (21%) or duplexes (24%) were more likely to report being ‘somewhat dissatisfied’ with the amount of sound in outdoor living spaces than those living in apartments (13%).

Figure 30: Participants’ rating of satisfaction with the amount of sound in outdoor living spaces, by typology (%)



Note: Base is all participants with an outdoor living space.

### 2.3.2 In-home immersions

As described in Chapter 3, Section 1.3, this study included 20 in-home immersions with participants who had completed a survey.

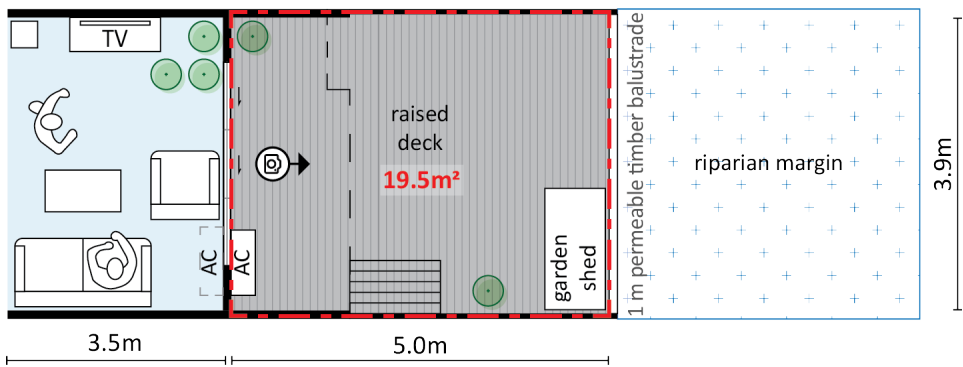
Those we spoke with valued some aspects of their outdoor living spaces and found room for improvement with other aspects. Two recurring themes emerged: perceptions of privacy and modifications to make the outdoor living space private enough, and perceptions of the connection to indoor living spaces with their home and how this affected their use of outdoor spaces.

#### Privacy

Households tended to like outdoor spaces with a high degree of visual privacy. For example, the household of the property shown in Figure 31 like that the garden shed and fencing of the outdoor

area made it feel enclosed on several sides and they also like that it overlooks a public reserve. They commented on enjoying the trees and hearing bird song from the reserve. They saw no issue with the space taken up by the garden shed and were pleased for this to be in this location as it acted as privacy fencing.

Figure 31: Outdoor living space overlooking reserve



Participants, or their neighbours, were making modifications to increase the privacy of their outdoor living spaces. This was often achieved by increasing the height of fencing or adding screening material to make fencing opaque. The neighbours of one household increased the height of the fence between their homes (Figure 32). The participant was comfortable with the height of the original fence but was willing to respect his neighbours' desire for greater privacy.

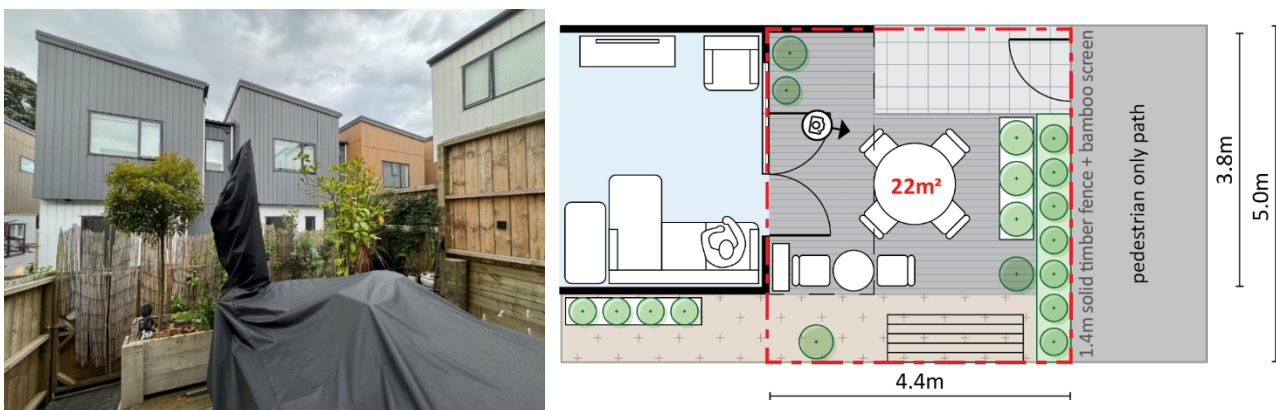
Figure 32: Height of fencing between adjoining outdoor living spaces increased to improve privacy



A household of four adults (a couple and two flatmates) enjoyed entertaining in their outdoor living space (Figure 33). They had added bamboo screening to increase the existing fence height (1.4m) while they waited for plants to grow, in an effort to limit disruption to their neighbours and increase visual privacy for themselves:

*Privacy's definitely a downside of living here, because we've had to put the bamboo things up ... we're just waiting for these plants to grow up just so we have a little bit more privacy, but it's not really for our own privacy. It's more for like if we do have drinks and it goes you know past 10 o'clock, we just feel a bit bad about it. You know, noise escaping ... the bamboo stuff, we did that because as much as it's kind of quite daunting [lack of privacy], the reality is that if someone walked by, they could see you from the waist up, we wouldn't typically be stood talking. We'd sit and then if you sat down, you actually can't see much.*

Figure 33: Bamboo screening attached to increase existing fence (1.4m in height)



Note: Outdoor living space adjoins a pedestrian-only accessway serving 14 other homes.

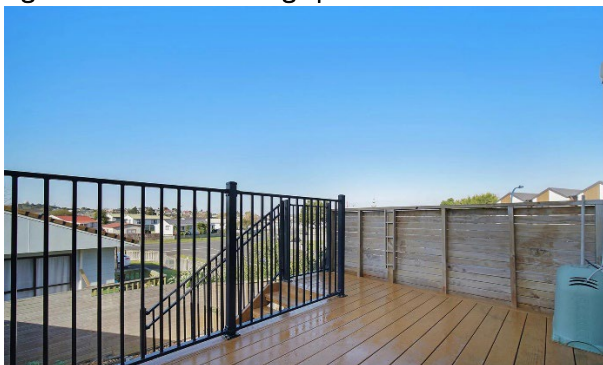
### Connection with indoor living spaces

Insufficient connection between indoor and outdoor living spaces was an issue for at least two households who participated in the in-home immersions, and an issue for other households who participated in the survey, as described in Section 2.3.1.

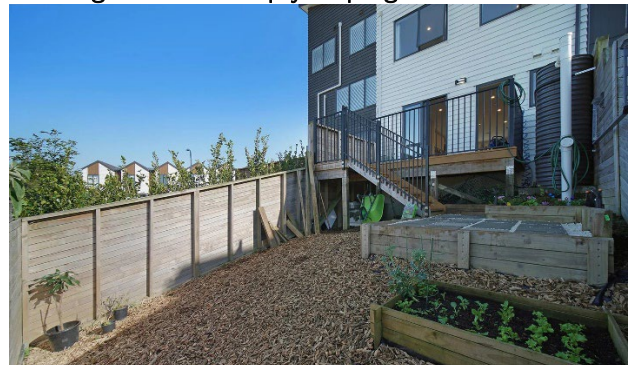
One household described how their outdoor living area was disconnected from their indoor living spaces because it was accessed through the dining area, which is only used for eating when friends visit (Figure 34). The participants found arranging furniture in their lounge and dining space a challenge due to the number of exterior doors (two each in the lounge and dining space), location of power plugs for the TV, and kitchen cabinetry in the dining space (pantry and fridge space). They expressed confusion at the dining space being larger than the lounge and wished the spaces were switched around with the kitchen bench moved “30cm” to provide more space for a lounge (it is noted that the larger dining space could not be used as a lounge due to the lack of uninterrupted wall space for placement of furniture and power plugs). Having the lounge at the rear of the home opening into the outdoor living space, participants thought, would make their home feel more spacious as they imagined using the outdoor living space as an extension of their lounge.

At 46.8m<sup>2</sup>, the total size of the outdoor living space is more than double the AUP minimum of 20m<sup>2</sup>. However, the space is very steep and covered in bark because the participants found it too steep to use a lawnmower, let alone use for activities.

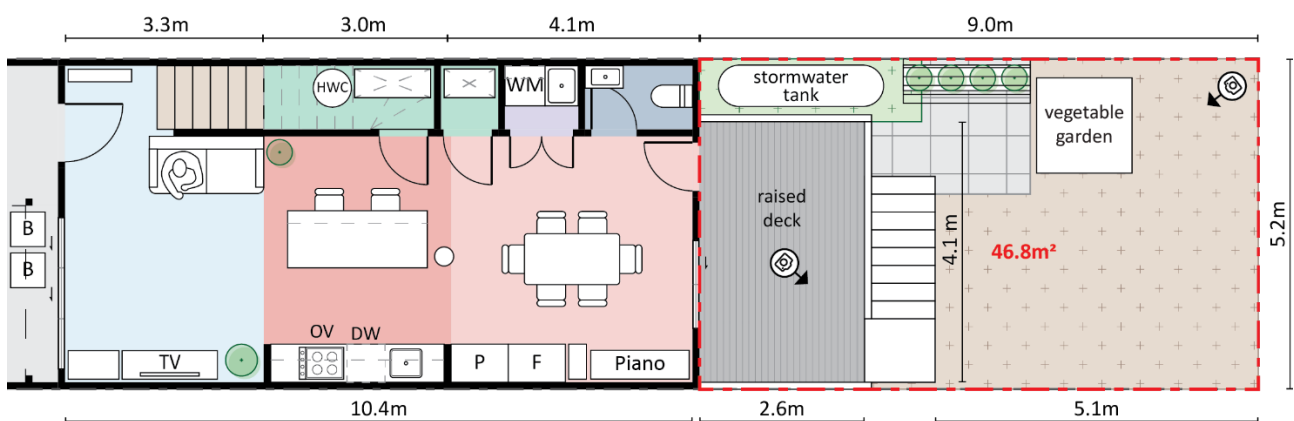
Figure 34: Outdoor living space with a deck and steps leading down to steeply sloping barked area



Source: Remax



Source: Remax



Another household lived in an apartment with a 6m<sup>2</sup> balcony accessible only from the bedroom. The participants commented that this made it hard to have visitors over as the balcony space could not be used as an extension of the living area and there was not enough space to serve food (Figure 35).

Figure 35: Access to apartment balcony only possible via bedroom



## 2.4 Site facilities in outdoor living spaces

This section contains observations about site facilities in outdoor living spaces from the in-home immersions.

While the survey did include questions related to the impact of site facilities on outdoor spaces, results are not presented due to discrepancies between participants responses and analysis of consented plans, which raised doubts regarding how the questions had been interpreted by the survey participants.<sup>24</sup>

### 2.4.1 In-home immersions

Site facilities in the outdoor living spaces of participants' homes included external heat pump units, washing lines, rubbish and recycling bins, water tanks and storage sheds. Participants had different perspectives about the uses of their outdoor living space.

One household's outdoor living space was at the front of their home, behind their car pad and overlooking the street (Figure 36). Currently they use the sunny space for drying laundry on a free-standing rack, but eventually they would like to put a BBQ with table and chairs there. They are content with this use of their outdoor living space.

Figure 36: Drying rack in outdoor living space



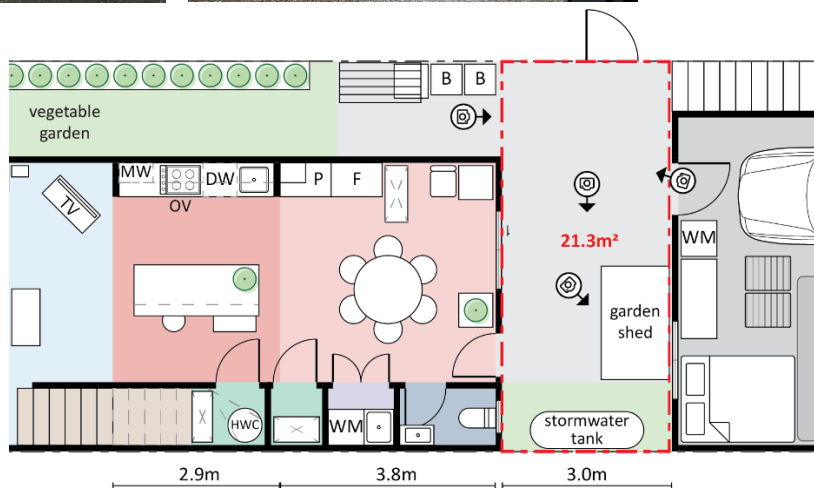
A multigenerational household had several site facilities in their outdoor living space, as well as storage or other items (Figure 37). The outdoor living space also functioned as a walkway between the separate garage, stairs going up to the apartment above the garage, and the main terraced house. These two functions limited the household's ability to use the space for 'living' activities such as dining. The shed in this space is used for wok cooking on a gas cooker as the stove in the kitchen is

<sup>24</sup> Participants who had outdoor living spaces as part of their terraced house or duplex were asked to rate the level of impact (thinking about heat, noise, taking up space and general enjoyment of the space), if any, the location of six separate site facilities had on their outdoor living space. The site facilities were a garden storage shed, external heat pump unit, hot water or gas cylinder, rainwater tank, wheelie or large rubbish and recycling bins, and outdoor washing line. The participants living in apartments with an outdoor living space were asked to rate the level of impact of an external heat pump unit. There were differences between participant responses and what showed on the consented plans for some participants. Due to these differences, the results from the survey are deemed to be unreliable and are not reported on.



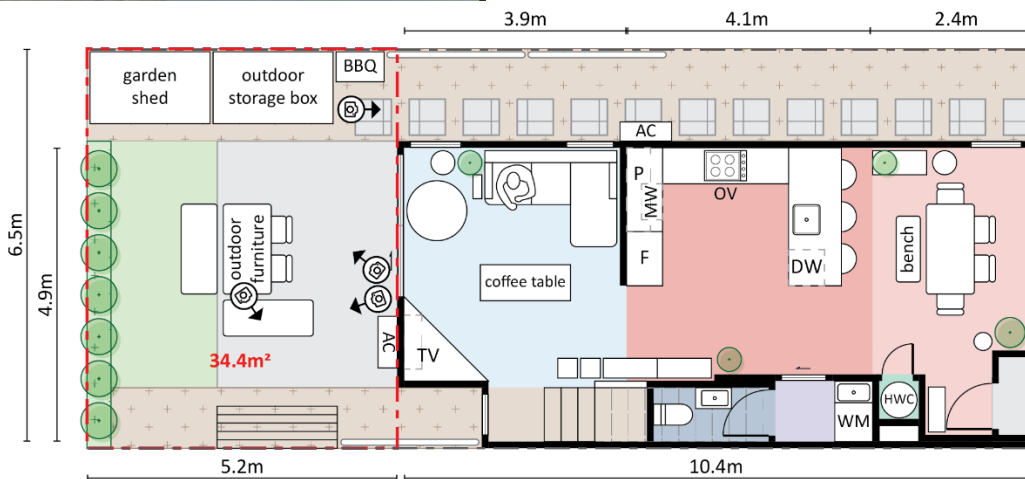
unable to facilitate this style of cooking. The side yard, past the rubbish bins and washing line, contains a garden growing a range of vegetables along the fence.

Figure 37: Cooking and storage shed (top left); water tank, water tank pump, brooms/gardening materials in outdoor living space (top right); stairs up to apartment, door into garage and gate washing line (bottom left, photo taken from inside garage); vegetable garden and rubbish bins in side yard and ranchslider door into dining space (bottom right)



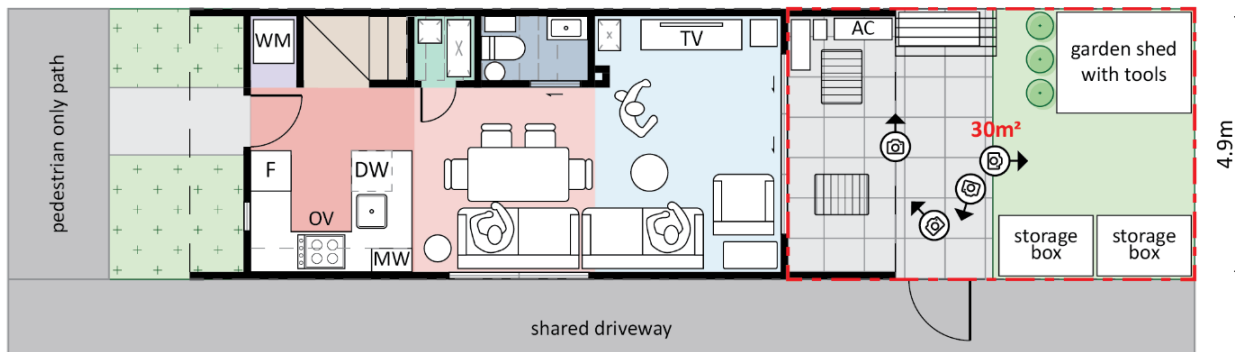
For some, site facilities did not infringe on their space and enabled it to function well. As an example, one of the two storage sheds in Figure 38 stored cushions for the outdoor dining chairs and the top of the heat pump unit enclosure was used as a table for serving drinks and food. This outdoor living space is 34m<sup>2</sup>, which is 70 per cent larger than the minimum required 20m<sup>2</sup> under the AUP. In addition, this home has side yards which are used to accommodate a second heat pump unit and surfboards.

Figure 38: 34m<sup>2</sup> outdoor living space with storage sheds (top left), washing line and enclosed heat pump unit (top right and bottom left) and second air conditioning unit in 1.6m wide side yard alongside storage of surfboards (bottom right)



Another multigenerational household of three adults and two children used their outdoor living space as a place of utility (i.e. storage, laundry and other home management tasks, such organising rubbish, replacing water bottles) as opposed to a place for living activities (e.g. socialising, play) because of limitations inside their home. The shed and storage units contained goods and materials for the husband's business. Most of the household's shoes were stored in weathertight boxes to the side of the air conditioning unit. Freestanding shelving stored tools, toys, grocery bags and other household possessions. There is both a washing line attached to the fence and two drying racks for laundry. Bins, buckets, boxes and empty water containers are also stored here.

Figure 39 External air conditioning unit, washing line and drying rack, shoe and household item storage, shed and additional storage boxes, all in a 30m<sup>2</sup> outdoor living space



## 2.5 Participants' comments about outdoor spaces

Outdoor living spaces were mentioned by 187 participants in response to questions about what they like and dislike about their home. These comments are discussed below, and in some cases, the participants' quotes are accompanied by images of the consented floor plans of their home and/or photos of their property to provide further context.

Six per cent of the survey participants said their outdoor space was something about their home they like the most. Many of these comments simply mentioned the existence of an outdoor space:

*Having an outdoor space.*

*I like the patio.*

Some mentioned an aspect of their outdoor space they like, such as privacy, sunlight or the outlook:

*Secure private patios and fenced garden.*

*Outdoor space small but enough to do garden and BBQ or just hang around with privacy.*

*The house gets a decent amount of sun; even in winter the garden and deck are nice in summer to relax or to entertain in.*

*The large deck at the back of the house overlooks a reserve with a lot of trees, this provides a lot of privacy and makes me feel like I have my own space.*

*Our outdoor deck gets lots of sun and we have outdoor furniture set up, so the space is very comfortable.*

A few participants said they like the low maintenance of a small outdoor space or the lack of an outdoor space:

*Garden is small and easy to maintain.*

*Small backyard, so less work and low maintenance.*

*I love gardening but I've been ill so not having one to look after is actually quite good.*

Seven per cent of participants reported they had made changes to their outdoor living spaces. These included adding a deck or other changes to the land cover (e.g. artificial turf, pavers). These modifications described by participants to their outdoor living spaces align with the findings of the s35 monitoring that noted challenges with maintaining grass and site facilities imposing on the useable space.

*Built a deck.*

*Laid fake grass outside to make area useable.*

*Replace part of the lawn with pavers near one fence line – that side of the garden has no direct sunlight, which result in very wet lawn and overgrown moss.*

*Outdoor space is only a very small patio, and the garden shed takes up some of that room as well. We moved the washing line to the side of the house which isn't usable anyway, to make the small patio space comfortable to use.*

*Converted barked garden to artificial grass to create larger usable area in outdoor living space.*

Others made changes to improve protection from the elements:

*Added archgola over back deck for more shade and cover from rain.*

*Added deck shade cover that is retractable.*

*Added a patio roof over our deck area.*

*Added outdoor pergola.*

Some made changes to planting. These findings also align with s35 monitoring that found many sites were poorly landscaped and lacked the amount of planting shown in the consented landscape plans.

*Created garden and planting.*

*Planter boxes/vegetable gardens.*

*Changes to outdoor area – deck, outdoor stairs x 2, landscaping (lots of plants planted).*

Ten per cent of participants mentioned their outdoor living space as something they dislike about their home. Comments included that these spaces are too small:

*Small space for backyard.*

*Small size of yard, no grass backyard.*

*Very limited garden space and deck.*

*Tiny outdoor space.*

Figure 40: Outdoor living space of duplex



Source: Nearmap Urban Aerial Imagery (NZTM).

Figure 41: Outdoor living spaces of terraced houses



Source: Nearmap Urban Aerial Imagery (NZTM).

*No outdoor space that everyone in the household has access to. Only a small concrete courtyard attached to the smallest bedroom.*

Note: The outdoor living space is 20m<sup>2</sup> and is shown as being accessed from a 'family room' on the consented plans. The participant's comment suggests that this room is instead being used as a 4th bedroom.

Some participants reported issues with privacy, both visual and aural, in their outdoor areas. Section 35 monitoring also noted privacy in outdoor living spaces to be an issue.

*Privacy in my backyard from upstairs neighbours overlooking it and a dog next door that barks at me when I go into my small backyard space.*

*Lack of privacy in garden.*

*It is a small 3bdrm and very small outdoor space, there are a lot of neighbours so doesn't feel very private.*

**Figure 42: Outdoor living spaces of terraced houses facing shared carpark with low fencing**

*Not much privacy in our back patio area, as neighbours are surrounding it and can easily look inside. Would love a bigger back patio for our dogs to play in.*



Source: Google Maps.

**Figure 43: Balconies with 'pool fencing' balustrades allowing direct views between adjacent balconies**

*Not overly private ... people can see our outdoor space from their balconies.*



Source: Google Maps.



Figure 44: Outdoor living spaces of two rows of terraced houses



*r courtyards all back onto one another and noise travels easily. You can hear the neighbours' conversations/arguments, music, children crying, etc.*

Source: Nearmap Urban Aerial Imagery (NZTM).

Some participants mentioned disliking the lack of green space/plants/trees or vegetable garden.<sup>25</sup>

*There's not enough green space, no space for community gardens, hanging out, etc.*

*Lack of gardening ability/interest by neighbours.*

*No community garden to grow veges.*

*Lack of garden space for planting fruits and vegies.*

*I would love a shared garden for vegetable/food growing, and access to space for composting to reduce rubbish.*

Figure 45: No trees on Treeline Lane



Source: Google Maps.

*There's no trees or real green space. Our road is called Treeline Lane and there aren't any trees which is somewhat ironic. More green space would be good and more planting.*

<sup>25</sup> See also Chapter 9, Section 5: Shared living facilities.

## 3 Summary

Outdoor living spaces are recognised in the ADM to be highly valued as they can offset limitations of smaller internal living spaces. The AUP identifies outdoor living spaces as a key component of delivering a high-quality built environment, but s35 monitoring reports that the AUP is not performing as well as it could to enable outdoor living spaces to enhance the health and wellbeing of households.

This study finds that the functionality of outdoor living spaces as spaces for 'living' can be compromised due to space taken up by site facilities (including sheds or boxes used for household storage such as shoes, suitcases, sport equipment), lack of privacy, and poor access from indoor living spaces. Participants reported liking the low maintenance of their outdoor living space and/or making changes to reduce maintenance such as replacing grass/planting with pavers/artificial turf.

The functionality of outdoor living spaces could be improved by better accommodating household storage and other site facilities either inside the home or in dedicated service areas separate from the outdoor living space.

### **Number and size of spaces**

The results are mixed with regard to how well the number and size of outdoor living spaces are meeting the needs of households. For about two-thirds of participants (66%) the number, and for over half (57%) the size, of outdoor living spaces are 'meeting' or 'more than meeting' the needs of the household. For the remaining participants, a third (33%) report the number, and 43 per cent report the size, of outdoor living spaces is 'somewhat' or 'not at all meeting' the needs of the household. Households with children are more likely to report the number and size of outdoor living spaces 'somewhat' meets the needs of the household. Infringement of outdoor living spaces by site facilities could be reducing the capacity of these spaces to act as living spaces, especially for households with children who are more likely to be without a spare bedroom, which may explain this difference in rating.

### **Green space**

Close to a quarter (23%) of participants reported being 'somewhat' or 'very' dissatisfied and 13 per cent report being 'neither satisfied nor dissatisfied' with the amount of space for plants in ground-level outdoor living spaces. Some of the participants who had reported making changes to their outdoor living spaces described creating a garden and planting plants, while others described changing the surface of their outdoor space to be decked, paved or turfed (i.e. artificial grass). When asked what they dislike about their home, some participants described the lack of space in their home for planting or not having a garden. Section 35 monitoring found landscaping of sites to be poorly implemented, which aligns with the participants' comments about plants and gardens.

These results suggest that the amount of green outdoor space in MDH is dissatisfactory for households, and that the amount of water permeable land cover is being reduced to increase the use for living activities (e.g. replacing grass with paving). The proportion of green spaces and water

permeable land is at risk of decreasing as more MDH is delivered across Auckland. This could have implications for wellbeing, biodiversity and resilience to climate change (i.e. from flooding events and increasing temperatures).

Auckland Council's Future Development Strategy aims to mitigate risks of development to biodiversity by encouraging densification in areas already developed, and risks to climate change by discouraging densification in locations at risk of flooding. Consideration is also required to ensure increasing housing density in developed areas is cognisant of climate change impacts (i.e. water and heat; see Chapter 7: Indoor environment), biodiversity and access to green space for wellbeing.

See also Chapter 9, Section 5: Shared living facilities.

### **Visual privacy**

Half (49%) of the survey participants were 'very dissatisfied', 'somewhat dissatisfied' or 'neither satisfied nor dissatisfied' with visual privacy in their outdoor living space. Dissatisfaction is greater in the participants living in terraced houses (38% 'very' or 'somewhat' dissatisfied) and duplexes (38% 'very' or 'somewhat' dissatisfied) compared with those living in apartments (16% 'very' or 'somewhat' dissatisfied). Issues with privacy emerged as a theme in the participants' comments about what they dislike about their home. Some households who participated in an in-home immersion described making changes to their outdoor living spaces in efforts to improve privacy, such as increasing the height of a fence or adding a bamboo screen to effectively increase the fence height.

### **Sound and aural privacy**

Sound in outdoor living spaces is an issue for half the participants (50% were 'very' or 'somewhat' dissatisfied or 'neither satisfied nor dissatisfied' with the amount of sound in their outdoor living spaces). A similar pattern to visual privacy across typologies is seen, with those living in terraced houses (21%) and duplexes (24%) more likely to be 'somewhat dissatisfied' than those living in apartments (13%) with sound in outdoor living spaces. Sound travelling between outdoor living spaces was mentioned by some of the survey participants when describing what they dislike about their home. It was also an issue raised by some of the in-home immersion participants.

Section 35 monitoring reports that the acoustic privacy of multiple adjoining outdoor living spaces is harder to mitigate than visual privacy. This study finds that sound is an issue for similar proportions of participants to visual privacy. Some in-home immersion participants who could hear their neighbours in their outdoor living spaces acknowledged this as a function of living closer together and were accepting of this reality. Comments from participants in both the survey and in-home immersions described modifying their behaviour in attempts to be considerate of their neighbours and to protect their aural privacy, such as avoiding having sensitive conversations or regulating their volume in their outdoor living spaces.

### **Site facilities**

Site facilities such as washing lines, storage sheds, external heat pump units and rainwater tanks can be present in outdoor living spaces and compromise the available space for living. Where these were present in the outdoor living spaces of the in-home immersions and did not compromise the

functionality of the space, the outdoor living space was larger than the 20m<sup>2</sup> minimum required by the AUP.

Some of the site facilities found in outdoor living spaces accommodate functions, such as storage or hot water cylinders, that may be better suited to be provided for inside the home. It appears that a lack of storage for household items and a proliferation of various site facilities, including wheelie bins, are resulting in outdoor living spaces making these accommodations at the cost of providing an outdoor space for living

activities (e.g. eating, socialising, play). As described in Chapter 4 and Chapter 5, households with a spare bedroom, extra bathrooms or WCs, or a garage can use these spaces for storage and laundry. However, households without one of these indoor spaces can become reliant on their outdoor living space to provide these functions instead.