

DESIGN GUIDELINES

Amended August 2009



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The Council of the Town of Claremont amended the Lakeway Design Guidelines in August 2009. This amended version supersedes all previous versions.

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1.0 Introduction

Those who choose to live at Lakeway and benefit from its unique natural setting are also making a choice to benefit the environment. Since its inception, the Lakeway project has been governed by principles of sustainability to ensure the best living environment for a residential community whilst reducing resource consumption. The vision for Lakeway is the creation of an attractive and sustainable urban residential estate.

Located in the Town of Claremont, just over 1 km from the Town Centre and approximately 8 km from the Perth CBD, Lakeway is within walking distance of public transport, schools and a variety of recreational open space. Principles that will contribute to Lakeway's high level of sustainability include a number of design initiatives provided through consultation with the surrounding community. These initiatives include the retention of established vegetation, the northern orientation of lots to make full use of winter sun, a design that works with the topography, and the capture and treatment of storm water run-off. To ensure the vision for Lakeway is fully realised, the extensive range of sustainability initiatives needs to be carried through to the design of buildings. These guidelines have been developed to outline sustainability principles for the design of all future residences and to outline how they will be applied.

2.0 Objectives of the Guidelines

The key objectives of these Guidelines are to preserve the qualities and attributes of Lakeway for future residents and to create a sustainable and attractive development that demonstrates best practice in ecologically responsive design and technology. The Guidelines affect site planning (layout of buildings on the lot), building design and services to each dwelling and have been designed to meet objectives for privacy, safety, energy efficiency, aesthetics and reduced use of resources. The objectives for each element of design are stated within the relevant sections of this document.

3.0 Explanation of the Structure of These Guidelines

The organisation of the Guidelines within this document is based on the various stages and considerations that are involved in best practise residential development design. Specific guidelines relating to Site Planning, Building Design, Service Infrastructure and Other Considerations have been grouped along with a short explanation of the rationale behind their inclusion. Each section also includes an explanation of the documentation required to illustrate compliance relevant to that element. The Guidelines, their objectives and matching set of mandatory requirements are provided as a checklist (Appendix B), which is required to be submitted with the application. While not all elements within the guidelines are 'requirements' to be addressed for compliance, each will be considered in relation to the overall design to ensure that the intent of the guidelines is met. Council reserves the right to inspect compliance with these guidelines, planning approval and building licence prior to occupation.





4.0 Relationship to Other Regulations

4.1 Residential Design Codes

These Guidelines have been prepared to constitute specific variations to the provisions of the Residential Design Codes of Western Australia 2002 (R Codes). Where there is an inconsistency between the standards of the R Codes and these Guidelines, the standards of these Guidelines shall prevail.

4.2 Town of Claremont Town Planning Scheme No. 3

These Design Guidelines have been adopted by the Town of Claremont as policy under Town Planning Scheme No.3 and should be read in conjunction with the Scheme Text and Planning Policies. In determining any application for planning approval, the Council will utilise these Guidelines as the primary assessment criteria to be exercised in conjunction with the Scheme and Policies (as amended or replaced from time to time) and the Residential Design Codes. Where these Design Guidelines are silent, the Scheme and Residential Design Codes come into effect.

4.3 Restrictive Covenants

Requirements of these Guidelines have been incorporated into restrictive covenants conveyed with the Certificate of Title for each lot. Therefore prior to purchasing land within the Lakeway estate it is important that buyers are familiar with these Guidelines and their implications on the type and cost of dwelling that can be constructed. Building activities which infringe these Guidelines or which are constructed without approval may be required to be removed at the cost of the owner. Substantial commencement of construction within two years from point of sale is also a requirement of these Guidelines that form part of the restrictive covenant.

5.0 Approval Process

To ensure that the Guidelines set out in this document are complied with, each dwelling design will be evaluated through a design assessment process. Prior to lodging an application for a building licence, the documentation outlined within these Guidelines is required to be submitted to the Town of Claremont (the Town) for planning approval. It is strongly recommended that any prospective landowners liaise with the Town at the earliest opportunity of the development process to discuss the proposals and to facilitate compliance with the intent of the Guidelines and approval of the design. It is imperative that all of the extensive information required by the Guidelines including fencing, fixtures, materials, finishes and landscaping is provided in the application to avoid delays in processing applications.

The approval process is summarised in the adjacent flowchart.

6.0 Site Planning

6.1 Detailed Area Plans

Detailed Area Plans (DAPs) have been prepared for all lots within Lakeway to ensure appropriate development on these lots and to facilitate variations to the Residential Design Codes (R Codes). The DAPs outline such elements as building envelopes and setbacks, parking and access, fencing, solar access and orientation of dwellings. Design elements that are required on a 1:200 site plan to illustrate compliance with the DAP should be in accordance with the requirements set out in section 2.4.5 of the R Codes. The detailed area plan for each lot is located as Appendix A.

6.2 Energy Efficiency

Solar passive design is the design of buildings in a way that minimises the need for mechanical heating or cooling. Homes built with solar passive design principles take advantage of natural energy flows to maintain thermal comfort. Building orientation, room placement, thermal mass and shading are just some of the simple design features that can be incorporated into a home to harvest these natural energy flows, increasing the energy efficiency of a home, making it more comfortable to live in, cheaper to run, and have less impact on the environment through reduced energy consumption.

Whilst these Guidelines have been developed to encourage the design and construction of energy efficient and sustainable housing at Lakeway, the use of a building sustainability rating tool will further enhance the achievement of the objectives for the estate. This type of tool measures a design's potential to save energy and expresses this as a score, normally a star rating. The highest star rating achievable is encouraged however, a minimum star rating of six stars using the assessment tool "AccuRate" is required for dwellings at Lakeway. The "deemed to satisfy" provisions of the Building Code of Australia do not apply. An energy rating certificate confirming this compliance, prepared by an accredited assessor, is required to be submitted with the application. An accredited assessor can found through the Western Australian Sustainable Energy Development Office Website: http://www1.sedo.energy.wa.gov.au/pages/her_assessor.asp.

In assessing the energy efficiency of proposed dwellings the following ratings are acceptable to the Town of Claremont in meeting the requirement for Energy Efficiency – AccuRate Ver 1, FirstRate Ver 5 and BERS Pro. Should the applicant prefer to use one of the alternative assessment rating systems, prior agreement is requested from the Town, demonstrating compliance of an equal or higher performance outcome.

Requirement

— An "AccuRate" 6 star or higher energy rating certificate.



“On average 39% of energy consumed in Australian Homes is for space heating and cooling. Using passive solar design dramatically reduces this figure.”

(Australian Greenhouse Office)

6.3 Orientation and Solar Access

In Perth's temperate climate a combination of passive solar heating and passive cooling is required. A building's orientation plays a large part in achieving the optimum solar access during winter and the ability to capture cooling breezes during summer. 'Solar access' is the term used to describe the amount of useful sunshine reaching the living spaces of a home. The principles of solar access have been used to guide the ideal placement of dwellings within the Lakeway Estate.

Detailed Area Plan's (DAPs) have been developed to ensure the most efficient placement of buildings and rooms whilst not compromising the privacy or efficiency of adjacent dwellings. To assist in thermal comfort and microclimate control, setbacks to the northern boundary have been increased from the R Code requirement to maximise winter sun exposure. To achieve maximum solar access for two storey buildings in Perth, the length of north facing glass at ground level should be a minimum of 50% of the north face and should be setback at least 6m from north side and north rear boundaries and 4m from north front boundaries. Similarly the first floor southern setback should be at least 4m to prevent overshadowing of the adjoining property.

Requirement

— Dwelling setbacks are consistent with the DAP for the lot.

6.4 Vehicle Accommodation

The location of garages has been indicated on the DAPs to minimise vehicular and pedestrian conflicts. Vehicle accommodation must also be setback at least 6m from the front lot boundary in order to minimise visual impact and to allow visitor parking. Some DAPs indicate 'preferred' garage locations, whilst others indicate 'mandatory' locations. The preferred garage location can be modified subject to Council approval.

Requirement

— Garage location is consistent with the location indicated on DAP.

7.0 Building Design

Whilst vitally important to achieving optimal solar access for a building, orientation is only one design element that is needed to optimise the passive heating or cooling of a home. To regulate the sun's energy, a series of building technologies and structures need to be incorporated into the design of a dwelling. Whilst an array of construction methods and materials can be utilised, the main purpose should be based on harnessing and repelling the sun's heat at different times of the year.



Proven design features that work towards this purpose and which are required to be included in the design of all buildings at Lakeway are discussed under the following headings:

- Internal Room Layout
- Window Placement, Sizing and Shading
- Thermal Mass
- Insulation
- Natural Ventilation

7.1 Internal Room Layout

The most frequently used rooms in a home, such as living areas and kitchens should be located on the north side of a home so they can benefit from passive heating. Similarly rooms that require less heating, such as bedrooms, should be located on the south side. Utility and service areas such as bathrooms, laundries, walk in robes and garages are also used infrequently and require less heating and cooling than other rooms. These areas should be located to the west or east to act as buffers to the sun for rooms that require passive cooling in summer. Garages located to the east or west of north facing courtyards can work to protect them from low angle summer sun and can also direct cooling breezes into living spaces. Grouping rooms of similar activity into zones that can be isolated reduces the amount of heating or cooling required as it can be directed to where it is needed most.

7.2 Window Placement, Sizing and Shading

Dwellings in the Lakeway Estate are required to have a substantial portion of the north face as glass, as it is very effective at collecting winter warmth and can be easily shaded from summer sun with correctly designed shading structures. With east and west faces, the angle of the sun will be close to horizontal early in the morning (east) and in the late afternoon (west), making them difficult to protect from the sun in summer. This makes rooms on the east and west of a building uncomfortably warm, particularly west facing rooms which receive the hot afternoon sun. To keep cool in summer, it is recommended that the total area of east and west facing windows be kept to a minimum. Windows on the south face of a building in Perth experience four hours of sun in the morning and afternoon during summer and will also require vertical shading for passive cooling.

Requirement

- Windows are adequately sized and shaded in accordance with their orientation.

7.3 Thermal Mass

Thermal mass is the ability of a material to store heat. Higher density materials perform best at slowing the transfer of heat from outside a building to the interior in summer, or the transfer of heat generated inside a building to outside in winter. Thermal mass located internally, particularly in north facing rooms, can be an efficient passive technique for moderating internal temperature, due to the wide variation in day and night time temperatures, and should be considered in the design of dwellings at Lakeway.



Inappropriately located thermal mass can work against passive cooling. An example of this is when hard paved areas outside large areas of glazing increase the heat load on glass in summer. These areas should be shaded to reduce this effect.

7.4 Insulation

Insulation helps slow the rate of heat loss in winter and heat gain in summer. The two main types of insulation, 'bulk' (e.g. fibreglass) and 'reflective' (e.g. reflective foil laminates), can be used to make significant savings in energy consumption and provide greater thermal comfort. The sensible use of insulation materials in roofs and walls assists in maintaining a continuous envelope to limit heat leakage or gain. Generally, the darker the roof colour, the higher the insulation rating of insulation material needed.

Requirement

— Insulation with a minimum rating of R4.0 to be installed in roof and shown on plans.

7.5 Natural Ventilation

Cross ventilation can be used to manage summer conditions. Allowing air in through an opening smaller than the opening through which it leaves will make use of cooling southwest breezes to rid the home of heat accumulated during the day. It is also important to undertake measures to prevent hot easterly winds entering in summer. The installation of ceiling fans is also recommended to make use of natural processes and to limit the use of air conditioners.

Requirement

— Provision of two operable windows a minimum of 5m apart in two external walls to living areas. (For the purpose of this provision, living areas are defined as incorporating living, dining and family rooms).

7.6 Building Appearance and Streetscape

To ensure Lakeway will become one of the Western Suburb's most sought after addresses, new houses should be contemporary in form, material and style. Therefore the copying of imported or historical architectural styles such as Mediterranean or Federation is inappropriate. Housing forms should also be of a nature and scale to reflect the relatively intimate character of the development and surrounding areas.

The front of houses should be detailed to provide visual richness and variety. Blank facades can be avoided through the use of projections and indentations. Entries to houses should be designed so as to visually articulate a 'front entrance'. To promote safety, primary, secondary and rear laneway elevations should include balconies, terraces or windows to enable passive surveillance.

Requirement

— Front entry is visible from the street.



7.7 Privacy

The protection of visual privacy between dwellings is to be in accordance with the Residential Design Codes.

The protection of a degree of privacy for each resident will enhance the long-term enjoyment of living in Lakeway. Overlooking and visual privacy concerns are an important issue in small lot residential developments. The overall development by its nature (two storey development) will require acceptance of a reasonable degree of overlooking from adjacent properties, however, it is a requirement that house designs should aim to minimise the impact on the privacy of neighbouring lots.

Whilst access to northern light is the highest priority, building designs will be required to demonstrate appropriate window and balcony placement to safeguard overlooking neighbours' internal and external living spaces. The use of screens, shutters and louvres are encouraged as measures to protect residents' privacy, especially to balconies and outdoor living spaces.

Requirement

— The design meets the privacy requirements of the R Codes.

7.8 Heights and Setbacks

To ensure an appropriate scale of buildings, the maximum allowable height for dwellings in Lakeway is two storeys with a third habitable level permitted within the roof space. For privacy and overshadowing reasons, building heights and their location are defined in the DAPs. Dwellings will not be approved where they exceed 9 metres in height from the finished ground floor level to the top of a pitched roof. Finished ground floor levels must be within 0.3 metres of the finished level of the lot at the front setback alignment of the proposed building footprint.

Requirement

— A maximum height of 9m, and;
— A finished ground floor level within 0.3m of the finished lot level.

7.9 Materials and Colours

Special consideration should be given to the combination and selection of materials so as to complement and harmonise with the neighbouring residences. Large areas of bright or garish colours tend to work against this philosophy and are not recommended. With a view to fostering the sense of a visually harmonious development, the selections of external building materials and colours will be subject to the approval of the Town of Claremont. This will ensure a harmonious streetscape and add significant value to the overall community.

Requirement

— The materials, finishes and colours of all buildings must be indicated on elevation plans.



7.9.1 Roofs

Whilst selection from a specific range is not required, consideration should be given to the use of contemporary profiles and alternative/innovative roofing materials and design.

Black coloured roofs will not be approved due to their propensity to absorb heat and Zinalume roof sheeting should be treated if used, to prevent problems with glare and reflectivity impacting upon neighbouring properties. In keeping with the contemporary housing design encouraged by these Guidelines, skillion, curved and pitched roofs are permitted, whilst tiles in Mediterranean, Tuscan, Federation or other heritage style profiles are not encouraged.

7.9.2 Walls

Exterior walls of the houses should predominantly be of masonry construction and should utilise combinations from the following palette of materials:

- Rendered finishes;
- Face brickwork or concrete blockwork (split faced);
- Limestone, sandstone or rammed earth;
- Painted or stained timber cladding (particularly on upper floor levels);
- Custom and mini-orb, and/or;
- Painted Hardiflex.

The careful use of construction/structural detailing incorporating materials and elements such as limestone, brickwork, timberwork and steelwork is encouraged to add interest and texture within the overall context of the design of each dwelling. Large building masses should be articulated with detail and structural elements such as trims, fascias, gutters, expressed structural columns and beams, parapet detailing and balustrading elements. Accent colours may be used to highlight elements in keeping with the overall colour scheme.

Requirement

- The design meets the requirements listed in Sections 7.9.1 and 7.9.2.

7.9.3 Fencing

As the style of fencing can have a significant effect on privacy and aesthetics within a residential estate, fences within Lakeway will be required to comply with the following design criteria:

- All fencing shall be of a high standard and be constructed in materials that complement the materials and colours of the home. All fences must be approved by the Town of Claremont before they are erected;
- The preferred treatment for the front boundary is for there to be no wall or fence. However, a low wall (0.6m) can be used to define the front boundary. Any such front fence should return along the side boundary to the building setback and;



— Should front fencing be provided by the developer for a particular lot, the fence is not to be removed or modified with prior consent of the Town.

Requirement

- Fencing facing secondary streets and rear laneways must be a maximum height of 1.8m and at least half of the length must be visually permeable;
- Pedestrian and vehicle access gates should complement the design, materials and detailing of adjacent fencing and be of a high standard and finish; and
- Letterboxes shall be incorporated into the design of the front fence, or if freestanding, constructed in solid masonry or concrete and finished to complement the dwelling.

7.9.4 Driveways and Paving

Driveways and paving in public view should complement the materials and colouring of the dwelling.

8.0 Other Considerations

8.1 Landscaping

To support the sustainability of Lakeway and to maintain the bushland setting of the estate, the following features are recommended:

- The area of paving or impermeable ground materials should be restricted to no more than 40% of the lot's private open space;
- Only drought tolerant and water wise native species should be used for plantings. A recommended species list can be obtained from the Town of Claremont.
- Lawns areas should be minimised and placed where they will be utilised, and;
- An irrigation system fitted with a soil moisture detection device to ensure plants are only watered when necessary.

8.2 Refuse and Clothes Drying Areas

Requirement

- Refuse storage areas and areas for the purpose of drying or airing clothes shall be totally screened from public view.



8.3 TV Antennas and Satellite Dishes

Requirement

— TV antennae should be located within the roof space. If required for reception purposes, the external mounting of television aerials and satellite dishes should be located so that they cannot be seen from public areas and shall not project more than 0.5m above a roof line.

8.4 Air Conditioners

Airconditioning equipment is to be visually and acoustically screened from adjacent dwellings, streets and other public areas to avoid any negative impact from noise or appearance.

8.5 Storage Areas and Outbuildings

Requirement

— Buildings separate from the main dwelling are only permitted to be located within the building envelope specified on the DAP and are to be constructed of wall and roof materials to match the main dwelling.

To confirm compliance with the requirements set out in section 7.0 and 8.0 of these guidelines, features that are required to be shown on 1:100 floor plans, in addition to those set out in section 2.4.5 (2) of the R Codes are:

- The location of all ancillary structures, including Bin Stores, Rainwater Tank, AC units and Clothes Drying Areas, and;
- The area and location of all hard stand surfaces, paving.

9.0 Service Infrastructure

Whilst energy use can be reduced through the careful design of buildings, further reductions in resource and energy use can be achieved through the use of renewable energy and integrated water management systems that minimise consumption. Consistent with these principles, dwellings within the Lakeway estate will be required to address the following requirements.

9.1 Solar Power

The sun is a resource that may be utilised without depletion, and greenhouse gases and other pollutants are not produced when it is used to generate electricity. As a sustainable energy source, the conversion of the sun's energy into electricity is a technology that is becoming widely utilised in domestic situations. Photovoltaic or 'solar cells' will be required to be mounted on the roof of each dwelling in Lakeway to contribute to the supply of energy used in the home.



The number of cells or size of the photovoltaic system required will vary depending on the dwelling's energy needs, but generally the average home uses around 12kW/h each day and would require a 1.5kW sized photovoltaic system.

Requirement

— The generation of electricity from an adequately sized solar power supply system.

9.2 Energy Efficient Appliances

The careful selection of appliances and fixtures that use electricity can significantly reduce the energy requirements of a home. To support the other energy saving technologies and methods incorporated into the dwellings at Lakeway, appliances of the highest possible level of energy efficiency should be purchased.

Requirement

— All appliances installed by the builder will be of a 'best practice' level for energy efficiency.

Current examples of 'best practice' appliances available include:

- Air Conditioning systems and Refrigerators: a wide range of products with 5 star rating are widely available.
- Washing Machines: 4 star rated machines are widely available with increasing availability of 4.5 star rated machines and limited availability of 5 star rated machines.
- Dishwashers: These are primarily rated on water efficiency with 4 star rated machines widely available and a limited availability of 5 star rated machines.
- Clothes Dryers: Where possible it is preferable that the provision of clothes dryers be avoided. 2 star rated machines are currently widely available, with limited availability of up to 3.5 star rated machines.

9.3 Solar Hot Water

As more than 30% of energy used in households is used to heat water, utilising the sun's energy to heat water is another means of significantly reducing power consumption and greenhouse gas generation.

Solar hot water systems are readily available and will be required in all dwellings at Lakeway. Systems that are fitted with water and/or heat loss minimising devices and which are located to reduce heat loss, should also be considered.

Requirement

— The use of a gas-boosted solar hot water system or a similar heating system that generates equal or less greenhouse gas emissions.



9.4 Water Conservation

Dwellings within the Lakeway estate are required to integrate sustainable water management systems that minimise the consumption of scheme water. This can be achieved without compromising the environment, or the health of users, through a combination of rainwater collection and greywater recycling.

Rainwater collected from roofs and stored in tanks is safe to use in homes for hot water systems when correctly fitted with first-flush devices. Rainwater tanks can also be connected to kitchen sinks, provided appropriate treatment for drinking water is installed. Therefore an adequately sized rainwater tank should be provided.

Greywater is wastewater from baths, showers, bathroom basins, and laundry facilities that can be recycled only by a Department of Health WA approved system. Systems must fulfil all Health Department requirements. Secondary-treated greywater can be recycled for use for toilet flushing, and garden irrigation. Non-treated greywater can only be used in sub-surface garden irrigation systems. Greywater for reuse must be delivered through a purple pipe network.

Requirement

- An approved greywater reuse system is integrated in the house design and installed by a licensed plumber using purple pipework according to Health Department regulations.

In addition to the system for collecting and recycling water, the type of fixtures used can also reduce water consumption. Most fixtures and appliances available on the market have a star rating indicating their water efficiency. In keeping with the vision for Lakeway, the new dwellings that will be built in the estate will demonstrate a high level of water conservation through the use of water efficient appliances.

Requirement

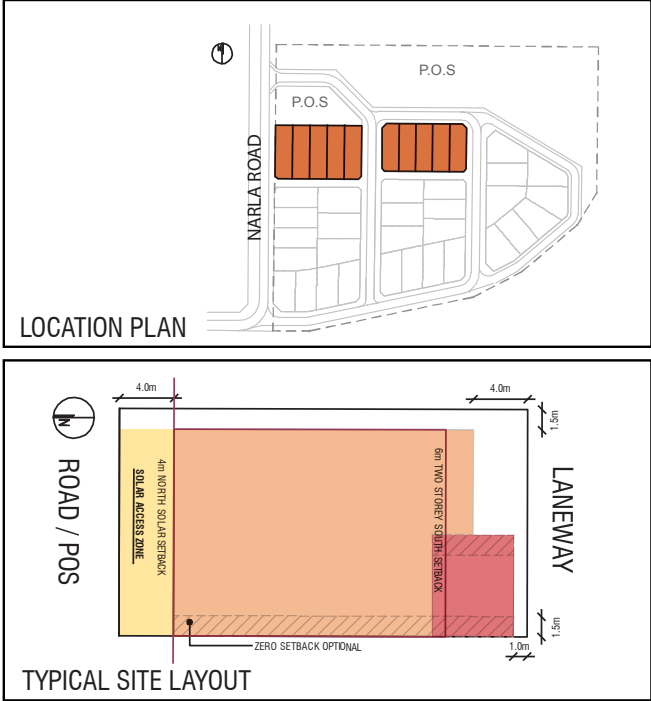
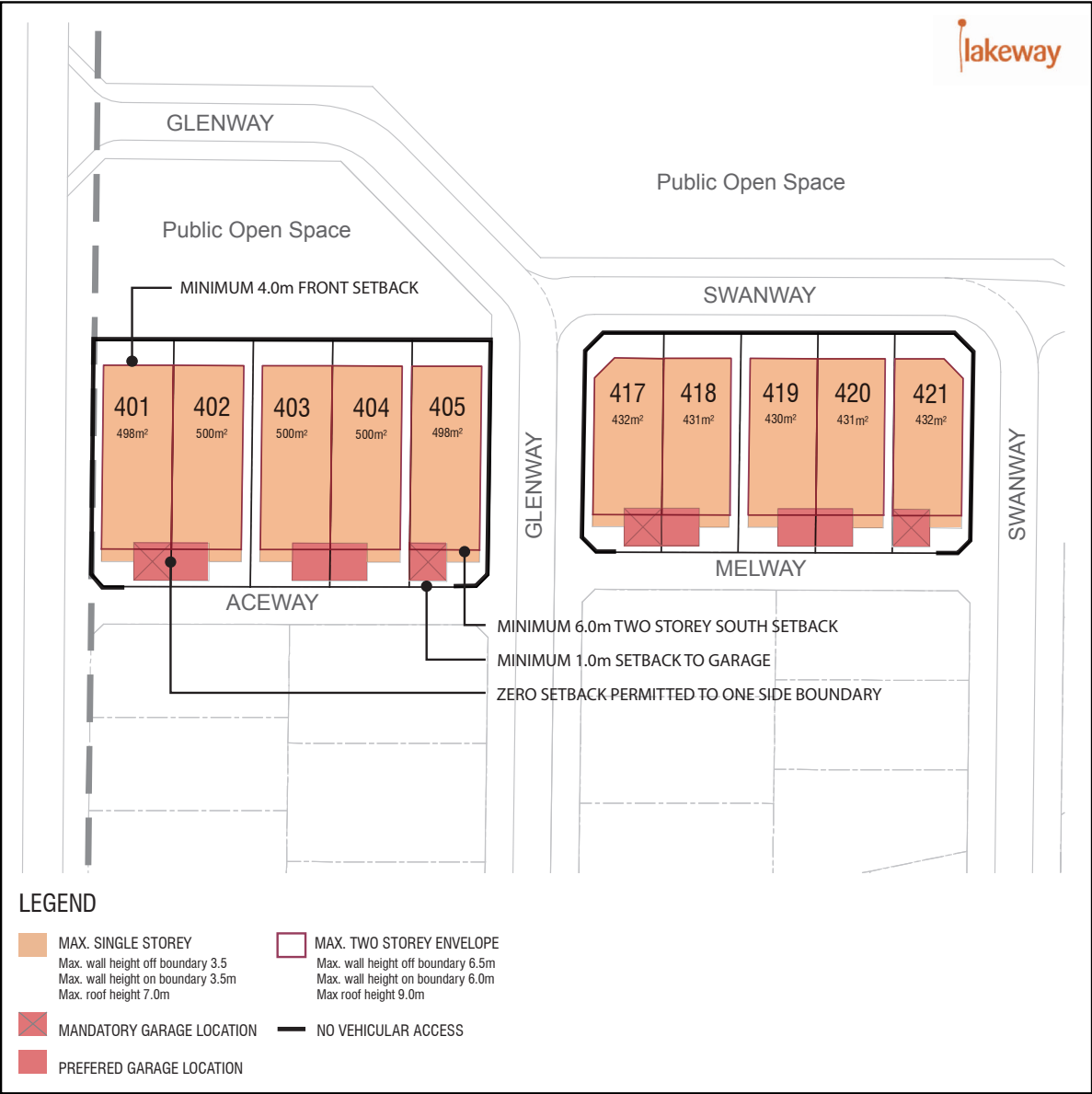
- The installation of 4 star dual flush toilets, and;
- The installation of 3 star showerheads, taps and appliances such as dishwashers and washing machines.

To confirm compliance with the requirements set out in section 9.0 of these guidelines a Fixtures and Appliances schedule is required to be submitted as part of the design assessment application.



DETAILED AREA PLANS





DETAILED AREA PLANS: R-CODE VARIATIONS

1. The density coding is R20.
2. The requirements of the R-Codes are varied as shown on the plan.
3. The requirements of the R-Codes shall be satisfied in all other matters.
4. All dwellings, patios, pergolas, balconies shall be contained within building envelopes.
5. A minimum open space site coverage of 50% is applicable.
6. A minimum consolidated outdoor living area of 30m² shall be provided that is integrated with the main living area of the adjacent dwelling.
7. Consultation with adjoining or other landowners to achieve a variation of the R-Codes in accordance with the endorsed Detailed Area Plan is not required.
8. Garage setbacks are subject to achieving a maximum grade of 1:6 from laneway or verge to garage finished floor level.
9. Side boundary fencing to terminate at the front building line.
10. Housing design to provide for habitable room to front / overlook the street.
11. Housing design to provide for a path connecting the entry / front door to the street.
12. Housing design is encouraged to incorporate an ability for residents to overlook the adjacent public open space to facilitate passive surveillance.
13. Front fencing where provided by the developer is not to be modified or removed without the prior written approval from the Town of Claremont.

The development guidelines as shown have been adopted by the Council and signed by the CEO.

Chief Executive Officer

Date

DETAILED AREA PLAN

GUIDELINE AREA 1: LOTS 401 - 405 & 417 - 421

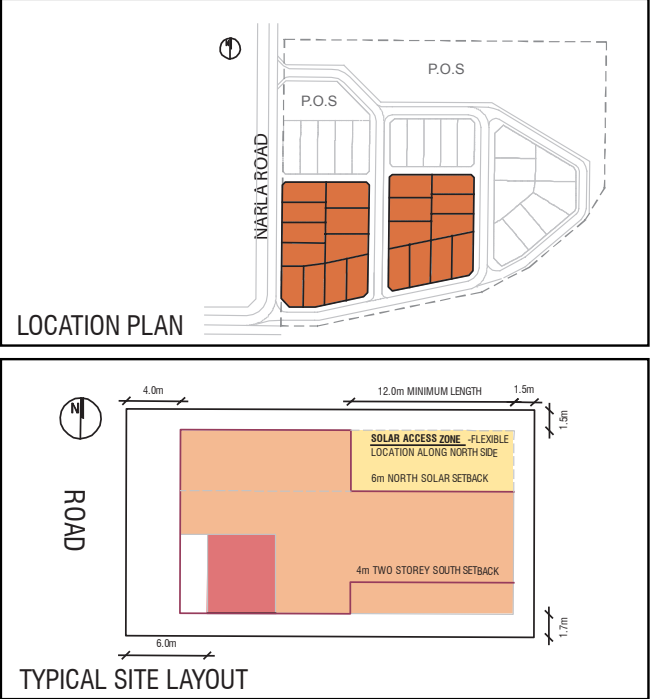
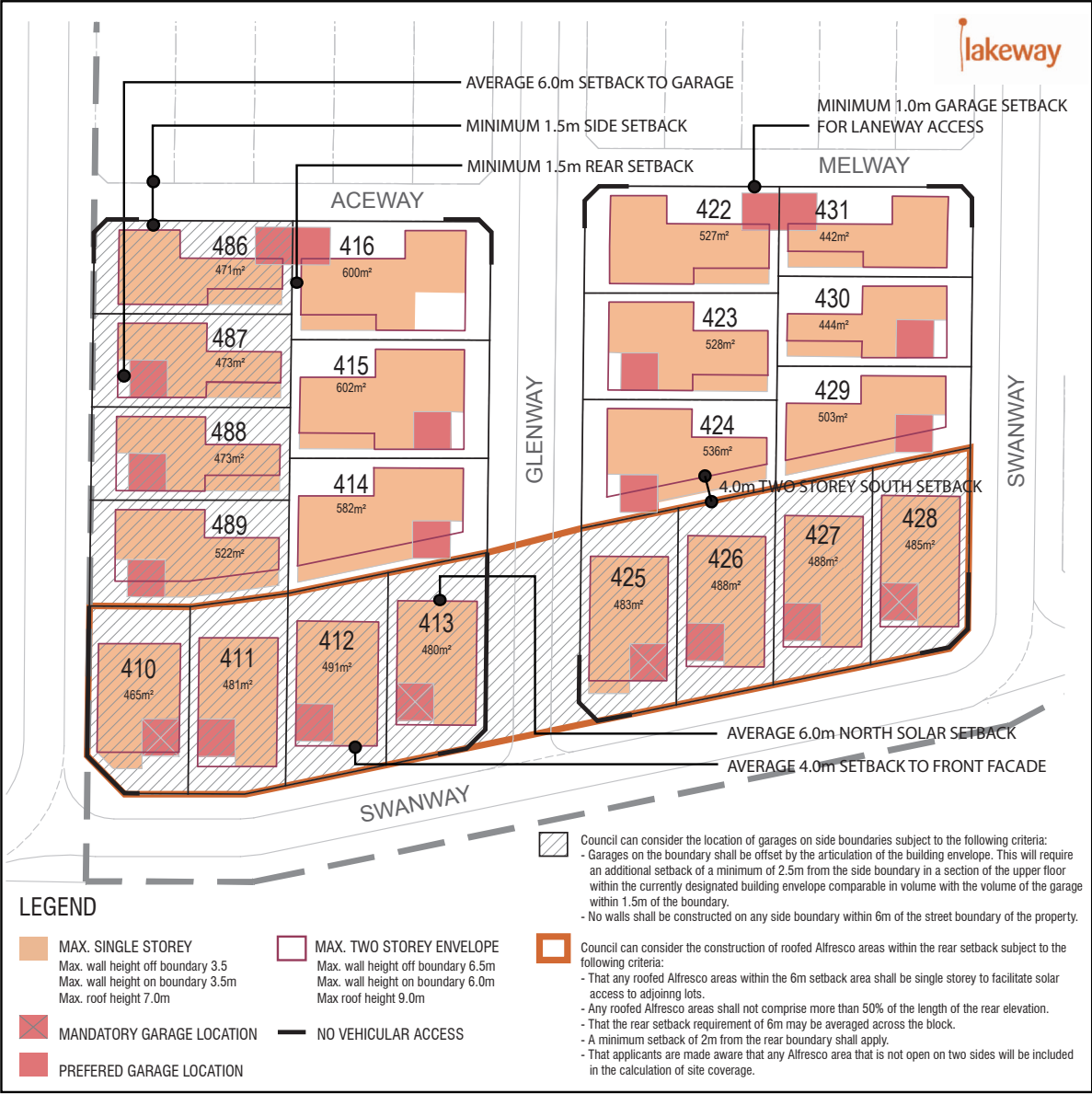
LAKEWAY REDEVELOPMENT, LOT 100 NARLA ROAD, SWANBOURNE - TOWN OF CLAREMONT



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HASSELL



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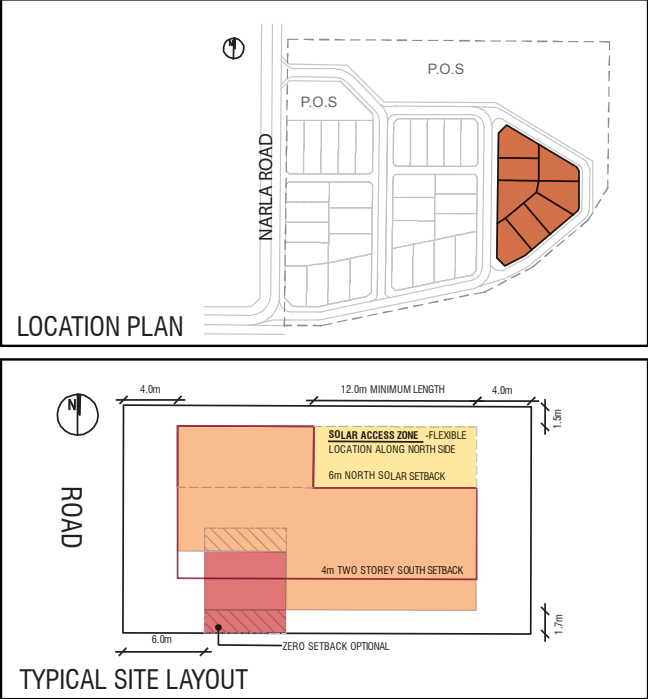
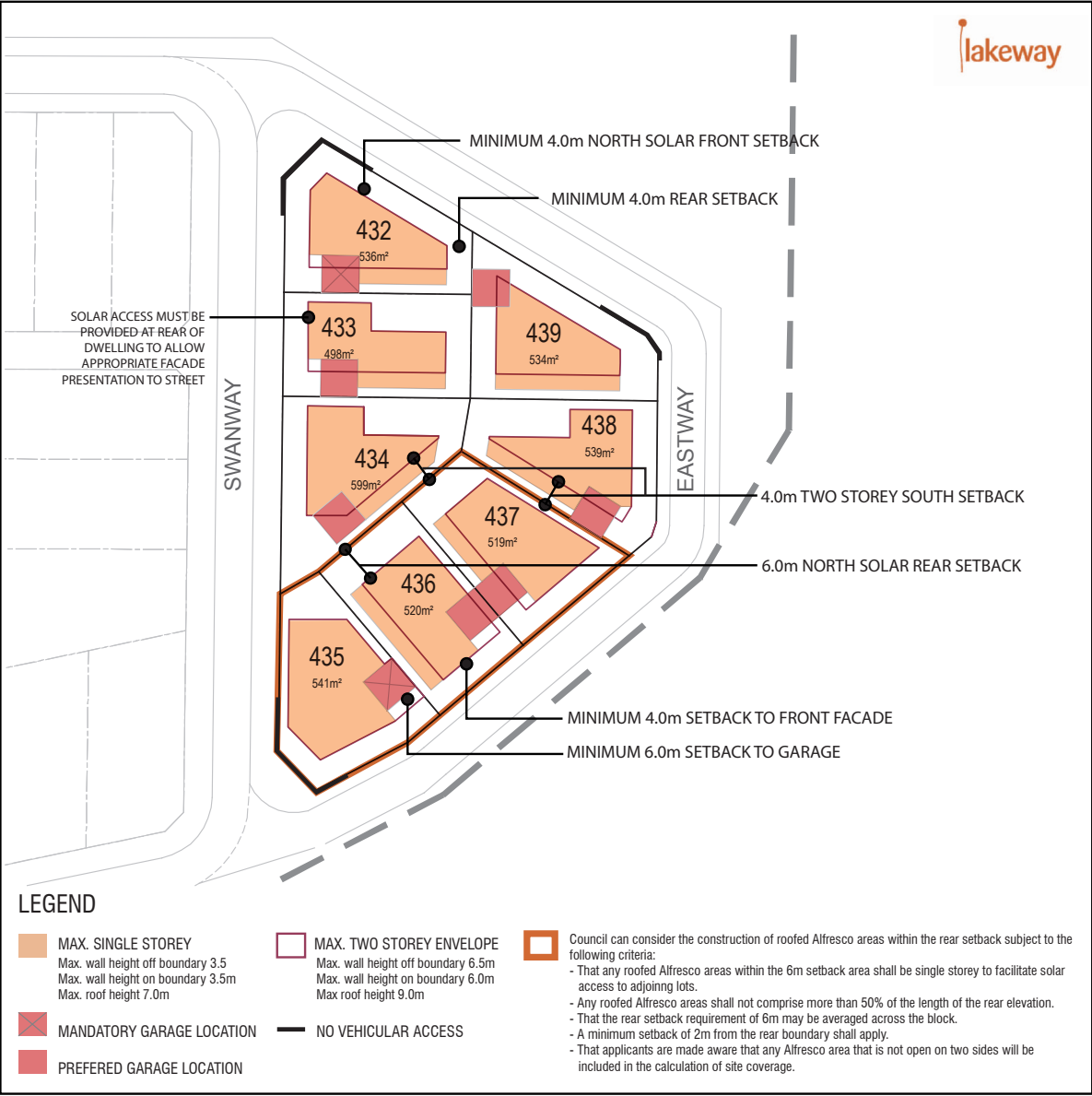
GUIDELINE AREA 2 : LOTS 410 - 416, 422 - 431 & 486 - 489

LAKEWAY REDEVELOPMENT, LOT 100 NARLA ROAD, SWANBOURNE - TOWN OF CLAREMONT



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SEPTEMBER 2009 JOB No. PPP0267



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10. Housing design to provide for habitable room to front / overlook the street.
11. Housing design to provide for a path connecting the entry / front door to the street.
12. Housing design is encouraged to incorporate an ability for residents to overlook the adjacent public open space to facilitate passive surveillance.

The development guidelines as shown have been adopted by the Council and signed by the CEO.

Chief Executive Officer

Date

DETAILED AREA PLAN

GUIDELINE AREA 3 : LOTS 432 - 439

LAKEWAY REDEVELOPMENT, LOT 100 NARLA ROAD, SWANBOURNE - TOWN OF CLAREMONT

0 5m 10m 30m 50m











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SEPTEMBER 2009 JOB No. PPP0267

HASSELL

Application Checklist

The design assessment application package must include the following:

3	Section	Requirement
		1:200 Site Plan(s) indicating location for all buildings, total floor area etc in accordance with Section 2.4.3 (1) of the R Codes.
		1:100 Floor Plan(s) in accordance with Section 2.4.3 (2) of the R Codes.
		1:100 Section Plan(s) indicating building heights, floor to ceiling heights, roof pitches and eave depths in accordance with Section 2.4.3 (2) of the R Codes.
		1:100 Elevation Plan(s) that indicate all external materials, finishes and colours of all buildings and fences in accordance with Section 2.4.3 (2) of the R Codes.
		1:100 Landscape Plan(s) indicating hard and soft areas, rainwater tank location, description of plantings and indication of materials, colours and finishes with particular regard to paving and driveways.
		Materials, finishes and colour selections in the form of samples and specifications to confirm the notes on your drawings.
		Fixtures and appliance schedule.
		Completed requirement checklist.



Requirement Checklist

Section		Requirement
 6.2	Energy Efficiency	An “AccuRate” 6 star or higher energy rating certificate.
 6.3	Orientation and Solar Access	Dwelling setbacks are consistent with the DAP for the lot.
 6.4	Vehicle Accommodation	Garage location is consistent with the location indicated on DAP.
 7.2	Window Placement, Sizing and Shading	Windows are adequately sized and shaded in accordance with their orientation.
 7.4	Insulation	Insulation with a minimum rating of R4.0 to be installed in roof and shown on plans.
 7.5	Natural Ventilation	Demonstration of opening locations to facilitate cross ventilation in living areas.
 7.6	Building Appearance and Streetscape	Front entry is visible from the street.
 7.7	Privacy	The design meets the privacy requirements of the R Codes.
 7.8	Heights and Setbacks	A maximum height of 9m.
		A finished ground floor level within 0.3m of the finished lot level.



7.9 Materials and Colours

The materials, finishes and colours of all buildings must be indicated on elevation plans.



7.9.2 Walls

The design meets the requirements listed in Sections 7.9.1 and 7.9.2.



7.9.3 Fencing

Fencing facing secondary streets and rear laneways must be a maximum height of 1.8m and at least half of the length must be visually permeable.



Pedestrian and vehicle access gates should complement the design, materials and detailing of adjacent fencing and be of a high standard and finish.



Letterboxes shall be incorporated into the design of the front fence, or if freestanding, constructed in solid masonry or concrete and finished to complement the dwelling.



8.2 Refuse and Clothes Drying Areas

Refuse storage areas and areas for the purpose of drying or airing clothes shall be totally screened from public view.



8.3 TV Antennas and Satellite Dishes

TV antennae and Satellite Dishes are compliant with the requirements set out in Section 8.3.



8.5 Storage Areas and Outbuildings

Storage areas and Outbuildings are compliant with the requirements set out in Section 8.5.



9.1 Solar Power

The generation of electricity from an adequately sized solar power supply system.



9.2 Energy Efficient Appliances

All appliances installed by the builder will be of a '5 star' level for energy efficiency.



9.3 Solar Hot Water

A gas-boosted solar hot water system or a similar heating system that generates equal or less greenhouse gas emissions.



9.4 Water Conservation

A greywater reuse system installed by a licensed plumber using purple pipework according to Health Department regulations.



The installation of 4 star dual flush toilets.



The installation of 3 star showerheads, taps and appliances, such as dishwashers and washing machines.



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