

DESIGN GUIDELINES

for Residential Development Valencia Road precinct Cervantes



LANDCORP

CONTENTS

| | | |
|------------|-------------------------------------|------------|
| 1.0 | VISION STATEMENT | p3 |
| 2.0 | DEVELOPMENT GUIDELINES | p4 |
| | 2.1 YOUR STREET | |
| | 2.2 YOUR GARDEN | |
| | 2.3 YOUR HOME | |
| 3.0 | SUSTAINABILITY GUIDELINES | p6 |
| | 3.1 THERMAL PERFORMANCE RATING | |
| | 3.2 OUTDOOR LIVING | |
| | 3.3 ORIENTATION | |
| | 3.4 VENTILATION | |
| | 3.5 SHADING | |
| | 3.6 MATERIALS | |
| | 3.7 ENERGY MANAGEMENT | |
| | 3.8 WATER MANAGEMENT | |
| | 3.9 FURTHER INFORMATION | |
| 4.0 | BUILDING CONTROLS: CERVANTES | p10 |
| | 4.1 BUILDING HEIGHTS | |
| | 4.2 DWELLING SIZE AND TYPE | |
| | 4.3 STREET FRONTAGE | |
| | 4.4 ROOFS | |
| | 4.5 ANCILLARY BUILDINGS AND SHEDS | |
| | 4.6 DRIVEWAYS | |
| | 4.7 FENCING | |
| | 4.8 SERVICING | |
| | 4.9 AIR CONDITIONERS | |
| 5.0 | DRAWINGS | p11 |
| | 5.1 CERVANTES STAGE 1A PLAN | |
| 6.0 | APPENDICES | p12 |
| | 6.1 RETAINING WALLS | |
| | 6.2 RECOMMENDED COLOUR PALETTE | |
| | 6.3 CHECKLIST | |

1.0 VISION

Imagining Valencia Road at Cervantes

The township of Cervantes is known for its relaxed coastal lifestyle. Kids still ride through the streets, fishing is an important aspect of daily life and the streets are local and friendly. Long stretches of sandy beaches are often dotted with the coloured sails of kite surfers flying over the waves as they make the most of the prevailing winds. Tourism contributes to the local community due to Cervantes natural connection to the unique Pinnacles of Nambung National Park. All of these experiences are special to the thriving community of Cervantes.

The aim of these Design Guidelines is to ensure that development on Valencia Road respects and enhances Cervantes open, friendly streetscape and enables residents to maximise their enjoyment of the natural environment through climate appropriate house design.

RESIDENTIAL DESIGN CODES

The Residential Density applied to the area is **R15**.

The requirements of the R-codes apply in all respects except where modification is indicated below.

BUILDING CODE OF AUSTRALIA

All construction must comply with the current Building Code of Australia.

TOWN PLANNING SCHEME

The Town Planning Scheme applies and should be read in conjunction with these guidelines.

COUNCIL PLANNING POLICY – CERVANTES AREA

The Council has adopted these guidelines as a planning policy for the Valencia Road development. The objective of the policy is to maintain the vision for the development, which is to enhance community interaction through open streetscapes and ensure that built form outcomes maximize opportunities for occupants to enjoy the local environment.

2.0 DEVELOPMENT GUIDELINES

By adhering to these guidelines the Valencia Road development will be recognisable for its climate appropriate and modern house designs, with references to the relaxed “fishing village” style particular to towns along the Coral Coast.

2.1 YOUR STREET

To maintain a good street environment owners should be conscious of the effect their house design has on the street. The way each house addresses the street has an effect upon the whole community. Verandahs facing the street that are actively inhabited provide opportunity for interaction with passers by and casual street surveillance. Verandahs need to be carefully designed to enable a comfortable environment in terms of privacy and shelter from the sun and wind.

Recommended:

- **PRIVACY** – A solid balustrade can provide for privacy, without sacrificing your views to the outside.
- **SUN** - Verandahs that are generally well shaded all year round. It is desirable to design the verandah to take advantage of the north light giving warmth in winter and shade in summer. Verandahs around the whole house should be considered as an excellent option for sun control.
- **WIND** - It is uncomfortable to spend time in the wind, particularly if you are trying to eat and the napkins keep blowing away! There are several ways of providing shelter from the wind on your verandah. Louvred shutters that can be open when conditions are fine and closed on windy days, but still let in light are a great option. Masonry breeze walls can provide protection and add decorative interest to your home’s elevation.
- Lattice is a traditional option that provides shelter and allows light and is an excellent architectural feature when applied with care and consideration. Modern versions of this are timber slats installed horizontally or vertically.
- Where a verandah is not possible, houses should have windows and large openings that overlook the street from active living spaces with appropriate shading.

All these options can create imaginative and exciting elevations to your home.

2.2 YOUR GARDEN

The front landscape is a large part of what you notice as you walk down a street. Streets with beautiful gardens are always lovely to live on and walk down. Trees and plants in the front gardens can also contribute positively to the microclimate of the street. Trees and shrubs provide welcome shade, windbreaks and habitat for local birdlife. Trailing or climbing plants cascading over a retaining wall can soften the environment and provide colour and interest throughout the year. Gardens also help to control dust and sand movement from wind in and around your home.

Recommended:

- Residents are encouraged to carefully consider the landscape around their homes.
- Trees should be strategically planted to provide shade and control wind.
- Plants should be considered for the colour and texture they provide to the street.
- Trailing and climbing plants should be considered along retaining walls.

An excellent resource for waterwise gardening tips and species lists suitable for your garden can be found at www.watercorporation.com.au on their “Publications” page – see “Creating a Waterwise Coastal Garden.”



2.3 YOUR HOME

The forms and shape of your house contribute to the overall impression of the streetscape. Traditionally the houses along the northern coast have been small simple houses that are rustic and uncomplicated. The “fishing shack aesthetic” is one that is robust and unfussy. Houses that embrace this type of design will enhance the Cervantes sense of place.

BUILDING FORM AND ROOFS

When choosing how your house is going to look, residents are encouraged to keep the building and roof forms as simple as possible. The beach/farmhouse style with verandahs all round, or simple shack like forms reminiscent of the coastal villages of WA, are built forms that will contribute positively to the streetscape and image of your community.

The shape and type of your home’s roof is very important to the streetscape. Once again an uncluttered roof with a simple hipped or gable end is encouraged.

Recommended:

- Simple uncluttered building forms – not too many angles, bay windows, etc
- Simple roof forms – no decorative or “period” features such as finials
- Full wraparound verandahs

MATERIALS

Materials used on the walls should be chosen for thermal and aesthetic quality. Good options include reverse veneer, where brick walls are used internally and weatherboards or lightweight materials are used on the outside. This allows heat trapped in the cavity to be released quickly as the temperature drops at night while allowing the internal brick leaf to hold an even temperature inside.

Double brick walls also have excellent thermal properties providing a slower and more even distribution of cool and warm temperatures. In summer a brick cavity house will be slower to heat up and it can also hold the heat longer in winter when temperatures drop.

Both types of building provide good insulation but the external look of the buildings differ. Lightweight materials such as fibre-cement and weatherboards are reminiscent of ‘no fuss’ fishing towns and will add to the look and feel of the street. Both can be used imaginatively and, with care, excellent and original buildings can result.

Recommended:

- Reverse veneer with weatherboards externally and bricks internally
- Double brick – rendered
- No face brickwork or metal deck cladding

GARAGES

Two storey houses along the coast have a traditional form where the living areas are located above a garage and space for the boat. Often the form of the building is one with a balcony to the street with lattice or other protective devices providing shelter as required. The front balcony can provide great vistas and a feeling of openness and spaciousness in the house.

If your home is to be single storey the garage should be located so that it is not the most dominant element of the house. Careful consideration should be given to hardstand areas for boats, trailers etc, to ensure these are screened from view of the street, or behind the house in the rear garden.

Recommended:

- Garages under the house with additional space for boats
- Garages that allow a drive through to backyard for boat storage

COLOURS

The colours you choose to paint your house contribute to the streetscape. Specific colour palettes will create an identity for the Cervantes community. While colour selection is a personal choice, residents are encouraged to choose colours from the colour palette provided.

LIVING SPACES

When planning your home you should consider carefully the location of indoor and outdoor living areas. Internal courtyards that are accessed directly from a living area and protected from the prevailing winds with access to north light can provide a delightful space to make the most of the environment all year round. Solar pergolas are particularly useful in allowing winter sun and excluding summer rays.

Recommended:

- Include a large, protected courtyard with direct access from internal living areas
- Locate living areas to activate both the street and the internal courtyard

3.0 SUSTAINABILITY GUIDELINES

The Sustainability Guidelines are structured in a two-tier format, 'Mandatory Criteria' and 'Design Recommendations'. Mandatory Criteria must be addressed in applications for Planning and Building Licences with the Shire. The Design Recommendations indicate encouraged design and construction practice to improve the overall sustainability of your home. This section outlines climate responsive design and construction principles.

3.1 THERMAL PERFORMANCE RATING

Aims to reduce residential energy consumption and increase thermal comfort by mandating improved building design.

Mandatory Criteria

Homes must demonstrate compliance with relevant BCA section/s for Energy Efficiency (refer Section 3.12)

All homes shall comply with the DHW 5 Star Plus requirements for Energy and Water use (refer to www.5starplus.wa.gov.au).

3.2 OUTDOOR LIVING

Identifies design elements that contribute to the occupants enjoyment of the Cervantes lifestyle and climate.

Mandatory Criteria

Homes must have a shaded habitable outdoor living space adjacent to the main living area with a minimum dimension of 5m and a minimum area of 30m². Care needs to be taken to protect the area from strong southerly breezes, either by locating it to the north or using appropriate wind breaks.

Design Recommendations

Provision for outdoor cooking is encouraged. Where possible outdoor areas should be located to the north of the block to take advantage of northern light.

3.3 ORIENTATION

A home should be orientated to take advantage of north light and allow cooling breezes through the house. North light is advantageous in allowing the lower winter sun to warm a house, while eaves, awnings and other shading devices can easily prevent the north light which is uncomfortable in summer. Houses must also take into account cooling breezes, as winds are predominately from the south and east. These breezes can reduce house temperatures significantly if breeze paths are available through the house. Ventilation at a high level will allow strong breezes to pass through the house without causing undue turbulence.

Mandatory Criteria

Homes must take advantage of north light to living areas where possible. Homes must be orientated to access predominately south winds with ventilation paths at a high level. Shaded habitable outdoor space must have shelter from southerly and easterly winds

Design Recommendations

Minimise wall surface area and glazing to all east and west facing walls, whilst maximising shading. Consider location of principal living areas within your home in respect to prevailing summer breezes. Consider separation from adjoining dwellings to allow for adequate breeze access. When designing outbuildings and landscaping, consider breeze access to adjoining properties.

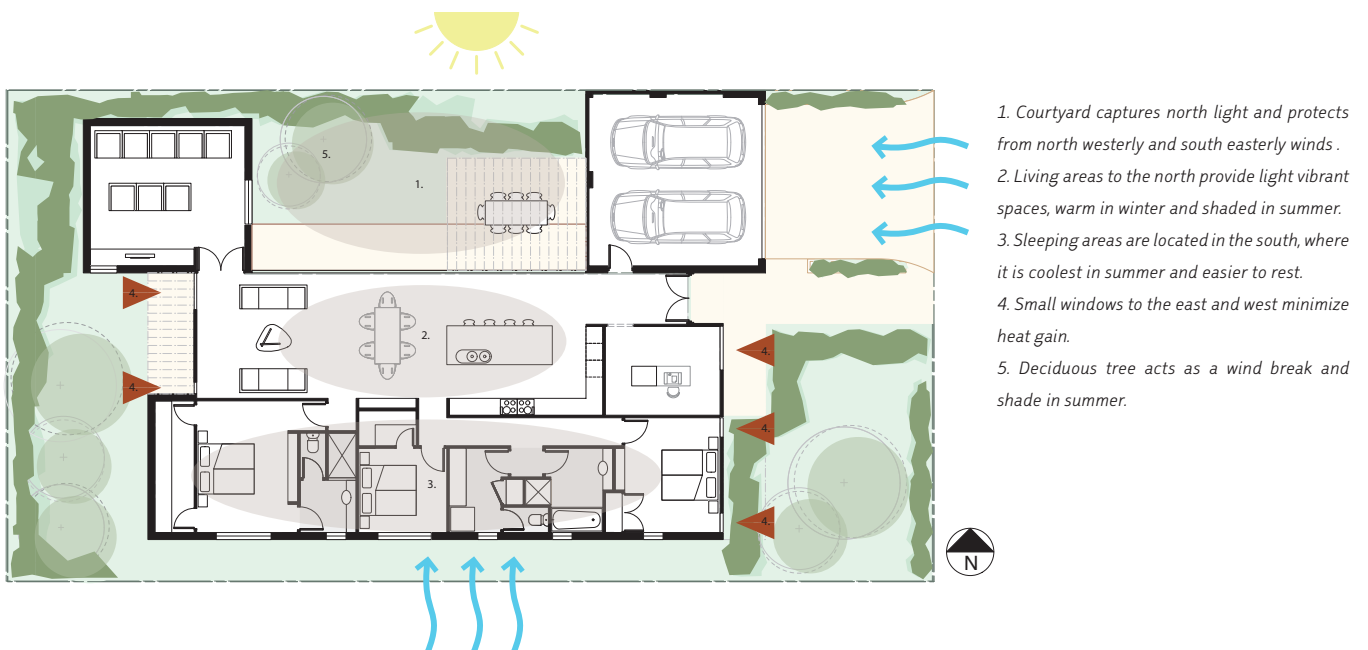


Fig. 1
Orientation and Outdoor Living

3.4 VENTILATION

Identifies design elements that will contribute to breeze access through homes to improve thermal performance and reduce reliance on artificial cooling. 'Orientation' and 'Ventilation' design elements must work together to provide natural cooling. To improve the natural flow of cooling air through the home it is recommended that larger openings are on the downwind side of the home.

Mandatory Criteria

Homes must provide a minimum of one ceiling fan to all habitable rooms. Wall mounted sweep fans or ceiling mounted fans must be installed.

Adequate breeze paths must be provided to all habitable rooms.

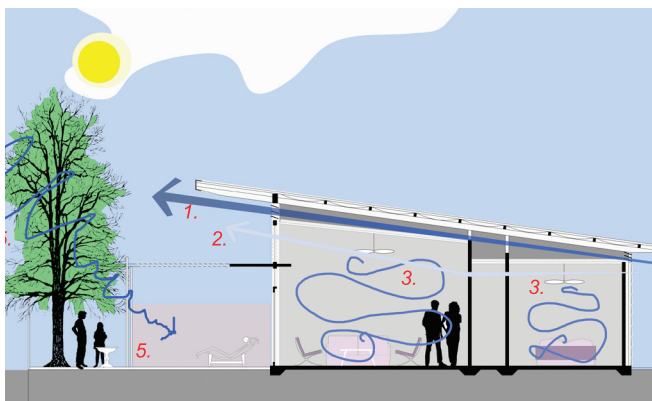
Open plan living areas must ensure adequate cross-ventilation to each functional area at a high level.

All mechanical equipment shall be designed and installed to operate at maximum capacity within the Noise requirements of the Environment Protection (Noise) Regulations 1997.

Design Recommendations

Consider narrower floor plan designs to assist breeze path access and cross ventilation.

Consider internal operable windows, correct positioning of doors or internal louvered walls/ screens to facilitate breeze path.



1. Ventilation through the roof is effective for cooling the house.
2. High level ventilation allows cooling breezes through the house without being too strong.
3. Fans are effective for providing personal comfort and are effective in combination with air conditioning if it is installed.
4. Trees provide good wind breaks.
5. Courtyards protected from the wind are important for maintaining usable outdoor living areas.

Fig. 2
Ventilation

Consider window types and window location for more effective opening, i.e. reduce glazing area while retaining ventilation opening.

Provision of two external openings to each habitable room is encouraged.

Roof ventilation to all roof spaces is recommended: e.g. vented gables, 'E' vent or similar.

3.5 SHADING

Addresses design elements to maximise the shading of homes, particularly glazed areas and walls, to increase the thermal comfort of your home by maximising its thermal performance and reducing reliance on artificial cooling.

Mandatory Criteria

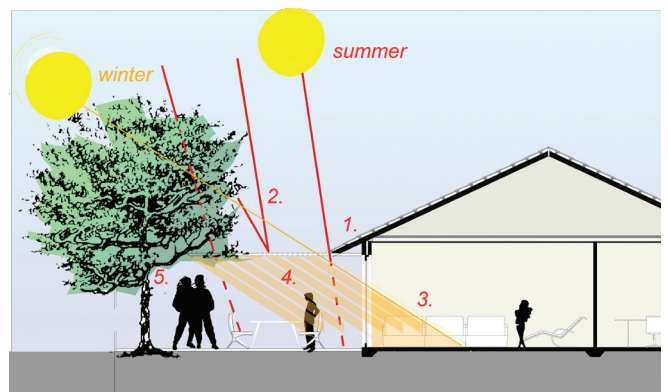
North, west and east facing walls must have minimum 450mm eaves to all rooms.

Design Recommendations

Consider using mature landscaping to shade the residence where eave width may be limited.

Minimise wall surface area and glazing, and maximise shading to the East and West facing walls.

South facing walls to have minimum 450mm eaves to habitable rooms.



1. Eaves overhangs provide good shade for windows and walls and are particularly effective on the north.
2. Solar pergola keeps out sun in summer.
3. Winter sun can penetrate northern openings in winter.
4. Solar pergola allows sun in winter.
5. Deciduous trees provide additional shade and can reduce the temperature of the house.

Fig. 3
Shading

3.0 SUSTAINABILITY GUIDELINES

3.6 MATERIALS

Identifies selection of building materials and construction techniques to reduce heat gain and retention within homes, thereby increasing occupant comfort and improving overall thermal performance.

Design Recommendations

Lighter coloured roofing materials are encouraged.

External paving or concrete slabs abutting external walls of homes is encouraged to have substantial shading from eaves or through landscaping and be separated by a vertical construction joint (bond breaker insert) from the main building.

Tinted glazing to external doors and windows is encouraged, or use Low-E, 'Comfort Glass' or similar.

An alternative to glazing to lower parts of full height windows is encouraged, while maintaining ventilation openings.

Structural timbers are encouraged to be Certified Plantation Timbers only.

Low emission surface coatings are encouraged (eg; low VOC paints).

The use of prefabricated components is encouraged.

Louvre or slider type opening windows are encouraged.

Note: A materials/ colour schedule is to be provided as part of your Application for Design Guidelines Approval

3.7 ENERGY MANAGEMENT

Identifies approaches to limit the overall energy consumption of homes and reduce energy costs for the occupants, (refer to www.5starplus.wa.gov.au)

Mandatory Criteria. All homes must provide:

A solar hot water system, complying with AS 2712-2002, that has been tested in accordance with AS 4234-1994, and achieves a minimum energy saving of 60% for a hot water demand level of 38MJ per day for a climate zone 5 or;

A gas hot water system, complying with AS 4552-2005 that achieves a minimum energy rating of "5 Stars" or;

A heat pump hot water system, complying with AS 2712-2002 that has been tested in accordance with AS 4234-1994, and achieves a minimum energy saving of 60% for a hot water demand level of 38MJ per day for climate zone 5.

Design Recommendations

High-energy efficiency lighting fixtures/lamps (internal and external) e.g. triphosphor, compact fluorescent or similar, are recommended.

Consider external lighting controlled by timer controls/ photosensitive cells/motion sensors as appropriate to control operation of specific light fixtures/fittings.

Consider internal lighting controlled by lighting management system e.g. photosensitive cells, ultrasonic ambient/motion sensors or similar.

Where installed, electrical appliances are encouraged to be a minimum 4 star rating.

Consider installation of photovoltaic systems or renewable energy systems.

3.8 WATER MANAGEMENT

Identifies design elements that will reduce the water consumption of homes and landscaping, thereby contributing to water conservation.

Mandatory Criteria. All homes must provide:

All tap fittings other than bath outlets and garden taps must be minimum 4 stars WELS rated.

All showerheads must be minimum 3 stars WELS rated.

All sanitary flushing systems must be a minimum 4 stars WELS rated dual flush.

All swimming pool or outdoor spas must be covered with a cover, blanket or the like that is designed to reduce water evaporation and is listed on the Smart Approved Watermark Scheme.

All internal hot water outlets must be connected to a hot water system or a recirculating hot water system with pipes installed and insulated in accordance with AS/NZS 3500:2003.

Design Recommendations

To allow the design of the supply and waste plumbing to comply with the State Water Use In Houses Code – for grey water use and alternative water supply use (refer to www.5starplus.wa.gov.au).

The installation of water efficient appliances is encouraged.

Installation of WA Health Department approved greywater treatment/reuse system (preferably gravity feed systems not reliant on storage tanks/pump).

To capture runoff, the installation of water tank(s) is encouraged.

3.9 FURTHER INFORMATION

Below are some useful websites you may want to visit before you design your new home.

Your Home Design Guide

The Your Home Design Guide is Australia's guide to environmentally sustainable house design and construction.

The Your Home Technical Manual gives you the information you need to design and build a more comfortable home that is less expensive to run while more environmentally friendly. It is the definitive tool for creating a home that is enjoyable to live in, cost effective and environmentally sensitive. Further information about Your Home Design Guide and the Technical Manual is available at:

www.greenhouse.gov.au/yourhome

Energy Smart Homes

The Sustainable Energy Development Office of Western Australia (SEDO) promotes the reduction of energy consumption at home. This includes easy and inexpensive ideas when building a new home and also offers advice on the many energy efficient and renewable energy products available, as well as information on Government rebates.

Further information regarding energy smart practices is available at:

www.sedo.wa.gov.au

Waterwise Principles

The Water Corporation promotes the use of Water wise principles in the design of new homes. Water wise Principles promote the minimisation of water usage within homes through the encouragement of the use of efficient water using appliances, plumbing fittings, and garden design including planning, irrigation requirements, construction and suitable plant selections.

Information regarding Water wise principles can be obtained through the Water Corporation's website at:

www.watercorporation.com.au

5 Star Plus

In May 2006, West Australia adopted the minimum 5 Star energy efficiency provisions of the Building Code of Australia for all new homes. Now the Government has gone further and introduced 5 Star Plus - that builds on the energy efficiencies from 5 Star with the added benefits of water reduction measures for all homes right across the state. 5 Star Plus is based around 2 Codes – Energy use in Homes Code and Water use in Homes Code. 5 Star Plus will be applicable for all new homes approved for construction across the state from September 1 2007. For information regarding 5 Star Plus principles refer to:

www.5starplus.wa.gov.au

4.0 BUILDING CONTROLS: CERVANTES

Clauses that are MANDATORY and specific to this land release are as follows:

4.1 BUILDING HEIGHTS

Building heights for Cervantes conform with the Town Planning Scheme and are as follows:

Maximum building height at roof ridge – 9m

Maximum height top of wall with a pitched roof – 6m

Maximum height top of wall with a concealed/flat roof – 7m

Heights are measured from the established ground level at the time of completion of the subdivision.

4.2 DWELLING SIZE + TYPE

The minimum area of dwellings is to be 100m² (measured on the exterior face of external walls), exclusive of carports, garages, verandahs, and the like. Owners are encouraged to design houses that satisfy their actual personal needs.

New transportable houses are permitted. In order to maintain a high quality outcome no second-hand transportable dwellings or dongas will be permitted.

4.3 STREET FRONTAGE

Where a lot fronts two streets, the house is to be designed to address both street frontages.

All dwellings to incorporate a verandah of minimum 2m depth. The verandah is to occupy minimum 60% of building street frontage, and can include overhangs to carport structures if required.

Dwellings entrances, letterboxes and garages/carports are to address the primary street.

4.4 ROOFS

Roofs shall be tiled or Colorbond metal deck or equivalent.

The roofs of all houses shall incorporate eaves and overhangs in compliance with Section 3.0 or, where appropriate, verandahs. Gable or hipped roof forms must not be less than 15 degrees pitch to main roof structures (verandahs and sunshades excluded).

Skillion, curved and other roof forms in addition to the more traditional hipped and gabled roof forms are allowable at pitches below 15deg.

Variations to roof pitch angles permitted at discretion of Shire Officers. Zinalume Roofs are not permitted.

4.5 ANCILLARY BUILDINGS AND SHEDS

A Building Licence will not be issued for any outbuilding, or other stand alone ancillary structure, until the main dwelling has reached the stage of lockup.

Ancillary structures, when constructed in or near the frontage of a block, shall be of a design and made of materials that complement the streetscape, whether they be appended to or constructed separate from the house on the block.

Where sheds and the like are constructed behind a house they shall be clad in Colorbond or in a material with a similar finish, unless the total area of the building is less than 9m² and less than 2.1m in height.

4.6 DRIVEWAYS

Garages to be located min 1m behind the frontage of the house. This dimension is not to be measured from verandah, porticos or the like.

Driveways within properties and the street crossover are to be constructed of the same material, unless construction is interrupted to maintain an existing public path.

Water tanks and clothes drying areas shall be positioned to the rear of properties or behind privacy screen fencing.

Stormwater runoff from roofs and paved areas is to be contained within the boundary of each property.

4.7 FENCING

Fencing in front of the building line is not permitted.

The following guidelines specify the design and construction requirements for side and rear boundary fences. They identify a fencing approach to assist with the achievement of a high quality of residential design and streetscape and to ensure a consistent standard of fixing of fences to retaining walls.

Fencing in the SECONDARY frontage of any lot will generally be required to be open aspect fencing unless it can be demonstrated that the use of an alternative type will not reduce the open aspect of the streetscape.

Where open aspect fencing has been constructed as part of the subdivision it shall not be altered. Should it be that the house occupant requires private space it shall be obtained by the erection of buildings or other screening (such as lattice) setback at least 1.5m from the open aspect fencing. The property owner will maintain landscaping between the open aspect fencing and the screening.

Solid fencing consisting of bare Zinalume metal, bare galvanised metal or unpainted hardifence or the like shall not be used.

Limestone, rendered brick walls or Colorbond modular steel fencing must be used for all side and rear fencing and include capping to all panels and fence posts.

Side and rear fencing must not exceed a maximum 1.8m in height above ground level. Side and rear fencing must not exceed a maximum 1.8m in height where fencing is attached to the top of a retaining wall – measured from ground level on the lot owner's side. Where fencing is attached to the top of retaining walls, the fence must be installed to manufacturer's recommendations in terms of core hole diameters, depths and grout type and the maximum distance between posts.

The fence posts must be placed centrally on the 350mm top block of the retaining wall. A non-shrink, colour-matched flowable construction grout must be used to anchor the fence posts into the core holes.

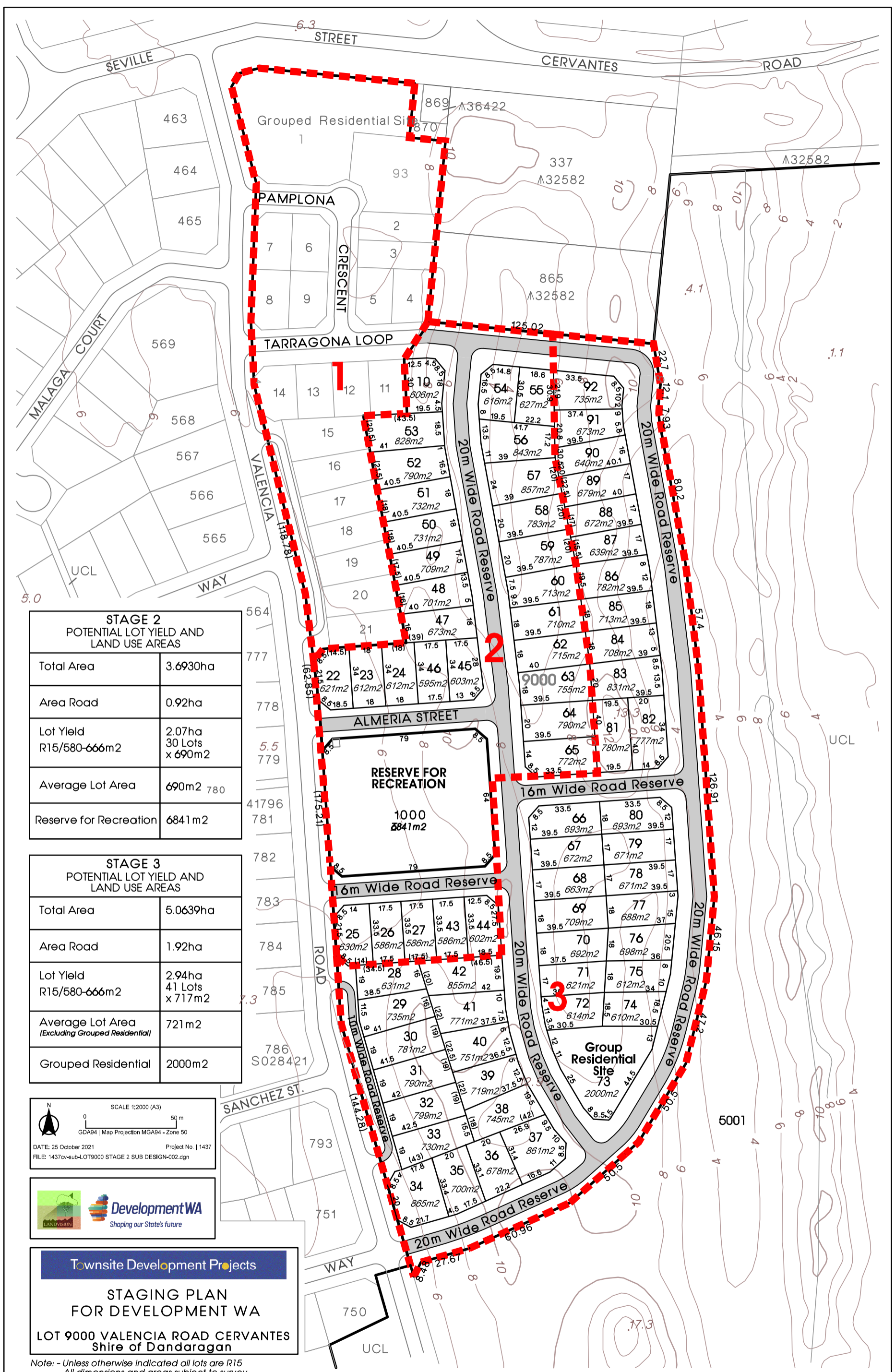
4.8 SERVICING

Bin storage and clothes drying areas must be fully screened from public view.

4.9 AIR CONDITIONERS


Roof mounted air conditioners must be located to the rear of your roof where they cannot be viewed from the street, and not easily seen from the neighbouring properties.

All mechanical equipment shall be designed and installed to operate at maximum capacity within the Noise requirements of the Environment Protection (Noise) Regulations 1997.



| STAGE 2 POTENTIAL LOT YIELD AND LAND USE AREAS | |
|--|--|
| Total Area | 3.6930ha |
| Area Road | 0.92ha |
| Lot Yield R15/580-666m ² | 2.07ha 30 Lots x 690m ² |
| Average Lot Area | 690m ² 780 |
| Reserve for Recreation | 6841 m ² |

| STAGE 3 POTENTIAL LOT YIELD AND LAND USE AREAS | |
|--|--|
| Total Area | 5.0639ha |
| Area Road | 1.92ha |
| Lot Yield R15/580-666m ² | 2.94ha 41 Lots x 717m ² |
| Average Lot Area (Excluding Grouped Residential) | 721m ² |
| Grouped Residential | 2000m ² |


 SCALE 1:2000 (A3)
 GDA94 | Map Projection MGA94 - Zone 50
 DATE: 25 October 2021 Project No. | 1437
 FILE: 1437cv-sub-LOT9000 STAGE 2 SUB DESIGN-002.dgn



Townsite Development Projects
**STAGING PLAN
 FOR DEVELOPMENT WA**
**LOT 9000 VALENCIA ROAD CERVANTES
 Shire of Dandaragan**

Note: - Unless otherwise indicated all lots are R15
 - All dimensions and areas subject to survey

6.0 APPENDICES

6.1 RETAINING WALLS

These guidelines only apply to Stage 1A of the subdivision of Valencia Road, Cervantes as depicted on the plan. These guidelines identify the design and construction requirements for retaining walls for side and rear boundaries to assist with the achievement of a high quality of residential design and streetscape while ensuring that the construction of the retaining walls has no adverse impact on development of the neighbouring properties.

MANDATORY REQUIREMENTS

- Where retaining walls are provided by the developer, these must not be removed or replaced without the approval of Council.
- All retaining greater than 0.5m in height must be approved by the Shire and where exceeding 1m in height must be certified by a practising structural engineer.
- Retaining walls must be constructed prior to the construction of the dwelling unless otherwise agreed by Council.
- The footings for any retaining wall are not to be constructed over a boundary line unless approved by Council.
- Where retaining walls, including footings, fall within the angle of repose for any other structure Council may require additional advice from a structural engineer to certify the works prior to Council approval.
- The retaining wall outer face must be located on the lot boundary unless where agreed by Council and adjoining lot owners that the retaining wall may be located centrally on the lot boundary and regarded as part of the dividing fence.
- Retaining walls must be constructed of cream coloured 350 x 350 x 1000mm reconstituted limestone blocks with 20mm thick mortar joints. Face joints must have coloured mortar to match the wall and consist of a typical mortar mix of 1 part lime, 1 part cement and 6 parts sand. Mortar mix to be confirmed by structural engineer.
- All reconstituted limestone blocks must have a dry density of at least 1800kg/m and a crushing strength of at least 5.0MPa.
- All retaining walls on the front boundary require Council approval.
- Retaining wall heights are to be kept to a minimum. Any alteration to side or rear boundaries shall be kept to a maximum of 0.5m from the natural surface level at the time of completion of the subdivision.
- Services (sewer, water and drainage) must have a minimum 1.5m setback from retaining walls unless otherwise agreed by Council.
- Side retaining walls must stop 1.5m in from the road reserve boundary to allow for services.
- No embankments with a slope greater than 1 in 4 will be approved.
- On corner lots, Council will specify the boundary on which a retaining wall is constructed.
- The finished pad level of a lot must not exceed the height of the adjacent retaining walls on that lot.

RECOMMENDED

- Council encourages the use of a series of smaller retaining walls or 'terraces' that can be softened with landscaping instead of a single large retaining wall.

6.2 RECOMMENDED COLOUR PALETTE



HEIFER P14B2



GASGOYNE GREY PG1H6



NILE CLAY P13B5



BLUE BALM PG1C2



SOFT SUEDE P13F5



PISTACHIO TANG P16C1



DA BLUES P37B6



CLAY PLAY P07C8

Dulux colours are quoted but can be matched with other paint systems

6.3 CHECKLIST

| APPLICANT: | | LOT NO: | |
|---------------------------|-----------------------------|-------------------------|----------|
| planning/evaluation issue | applicant compliance Y/N | shire compliance Y/N | comments |
| Complies with R Codes | | | |
| Complies with BCA | | | |
| Complies with TPS 7 | | | |

3.1 Thermal Performance

| | | | |
|-------------------------------------|--|--|--|
| Complies with BCA energy efficiency | | | |
| Complies with DHW 5 Star Plus | | | |

3.2 Outdoor Living

| | | | |
|---|--|--|--|
| Shaded outdoor living space (30m ²) | | | |
|---|--|--|--|

3.3 Orientation

| | | | |
|---|--|--|--|
| Advantage made of North light where possible | | | |
| Accesses Southerly breezes for high level cross ventilation | | | |
| Outdoor living protected from westerly + easterly breezes | | | |

3.4 Ventilation

| | | | |
|--|--|--|--|
| At least one ceiling fan to all habitable rooms | | | |
| Adequate breeze paths to all habitable rooms | | | |
| Open plan living areas adequately cross ventilated | | | |
| Mechanical equipment complies with EPA regulations | | | |

3.5 Shading

| | | | |
|---|--|--|--|
| 450mm eaves to East, North and West Walls | | | |
| 450mm eaves to South Walls | | | |

3.7 Energy Management

| | | | |
|--|--|--|--|
| Hot Water System - Solar/Gas/Heat Pump | | | |
|--|--|--|--|

3.8 Water Management

| | | | |
|--|--|--|--|
| Taps - min 4 Star WELS rated | | | |
| Showerheads - min 3 Star WELS rated | | | |
| Flushing systems - min 4 Star WELS rated | | | |
| Pool blanket | | | |
| Hot water pipes insulated to AS/NZ 3500:2003 | | | |

THE IMPORTANCE OF SUSTAINABILITY

A sustainable approach to our use of land will strongly shape the future of society. To meet the needs of both current and future generations, we must consider all the effects of our actions: environmental protection, social advancement and economic prosperity. We apply the principles and practices of sustainable development all across Western Australia, learning more and improving results with each project. We're committed to minimising our ecological impact and enhancing the community's quality of life.

find out more at:

www.landcorp.com.au

