



Urban Land and Housing Group Pty Ltd

## Urban Design Review

Lochinvar Ridge Estate

December 21

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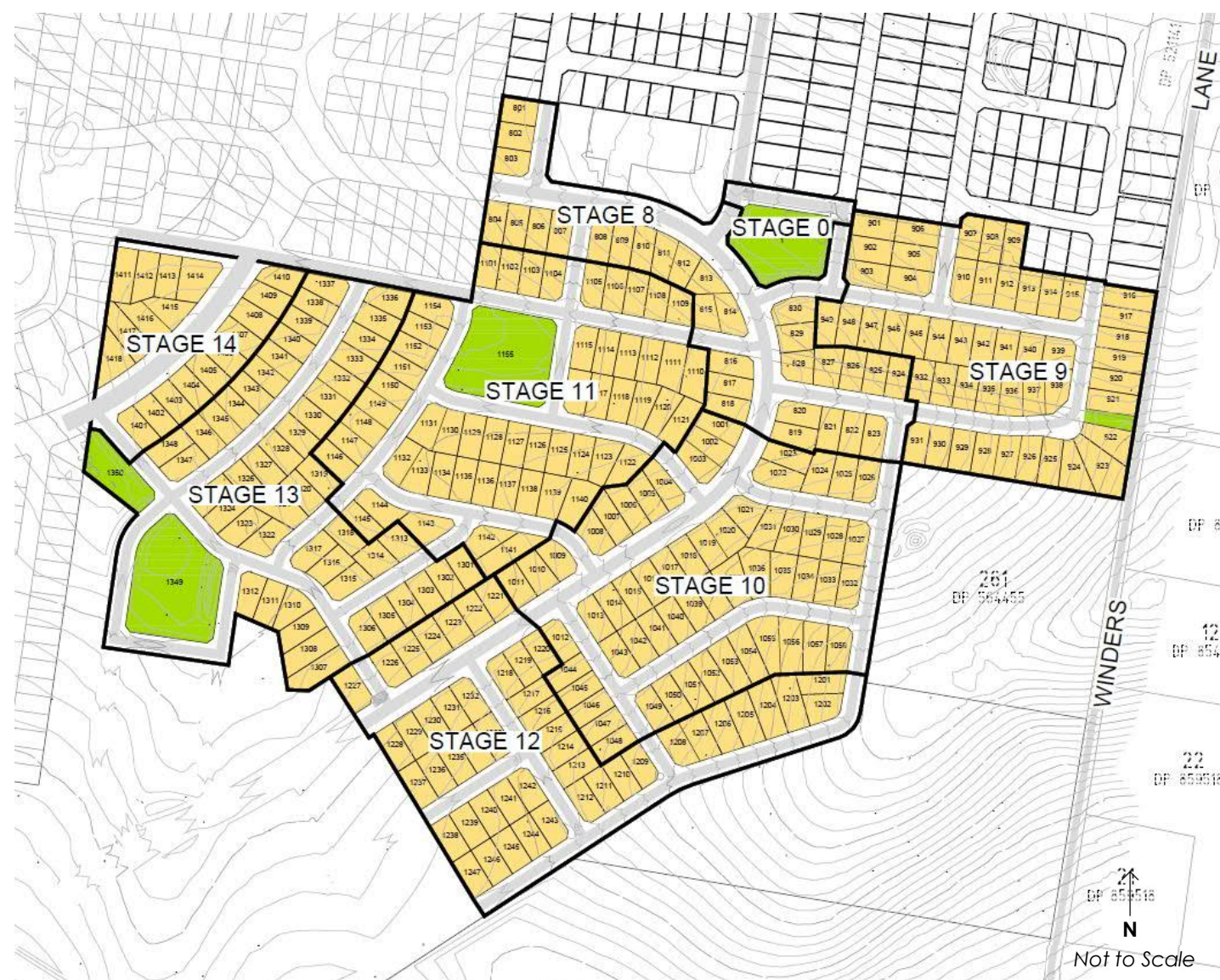


Figure 1: Overall Subdivision Layout (BRS; October 2021)

## 1 Introduction

This report has been prepared on behalf of Urban Land and Housing Group Pty Ltd to support the proposed residential subdivision of 799 New England Highway and 70 Christopher Road, Lochinvar within the Lochinvar Urban Release Area (URA). Figure 1 illustrates the proposal.

The Lochinvar URA is a key residential growth area within the Hunter Region for accommodating housing supply to cater for population targets. The URA is expected to provide an additional 5,000 residential dwellings (Lower Hunter Regional Strategy 2006-2031; NSW Department of Planning 2006).

The subject development is positioned adjacent to land having current development consents for residential subdivision and is located within close proximity to the future Lochinvar commercial centre and New England Highway.

The proposal features a variety of spaces and public facilities that promote high-quality urban living through a planned residential community that is integral to the greater Lochinvar area. Provision of linked transport networks, connected green spaces and lots that support opportunities for high quality residential living capture the vision for this proposal.

This report concludes that the proposal delivers a high-quality urban design outcome that capitalises on the potential of the site and overall URA by:

- responding to the site's physical context through a well-considered urban layout and civil engineering design that contributes positively to the surrounding rural and future urban environment;
- developing a large land holding within the Lochinvar URA that is in close proximity to a range of future services and amenities; and
- delivering a site layout that integrates with its surrounds and provides high urban amenity for future residents.

The proposal is located on land that has all the merits for residential development and delivers a considered design that responds to the existing characteristics of the site and its surrounds. The proposal is therefore supported from an urban design analysis perspective.



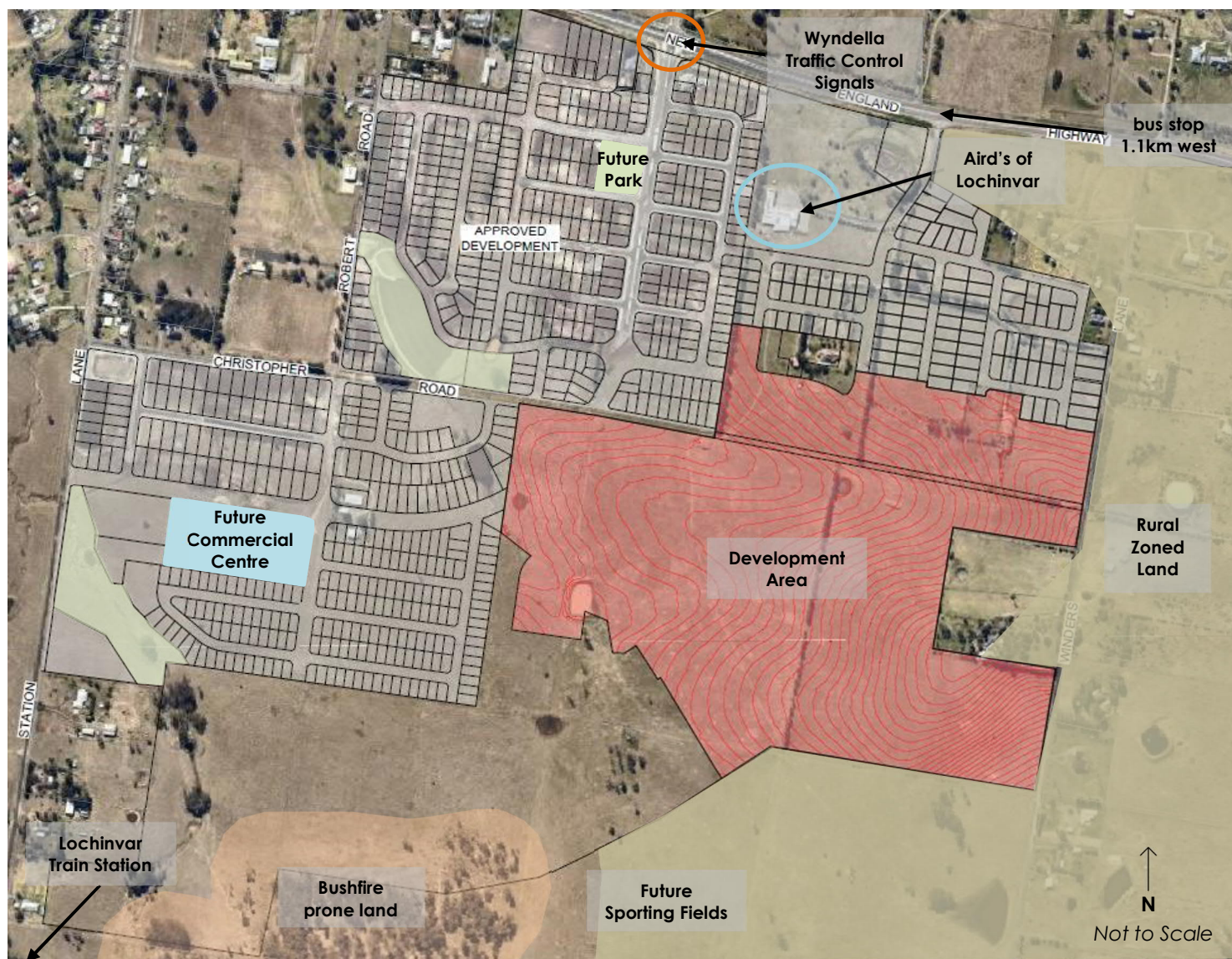


Figure 2: Site Features and Surrounding Locality (BRS; December 2021)

## 2 Environmental Analysis

### 2.1. Locality Context

The site is located within the Lochinvar Urban Release Area (URA) in the Maitland Local Government Area (LGA). Lochinvar is positioned approximately 13 kilometres north west of Maitland. New England Highway is positioned to the north of the site while Main Northern Railway is positioned to the south. Figure 2 illustrates the features of the subject site with respect to the greater Lochinvar URA and approved developments.

#### 2.1.1 Strategic Context

The subject land is a key residential development site within the Lochinvar Urban Release Area (URA). It is surrounded by land with current development consents for residential subdivisions, located within close proximity to the future Lochinvar commercial centre and near a significant transport corridor, New England Highway.

The site is identified within the Lower Hunter Regional Strategy as a key site to achieve population growth targets for the Lower Hunter region. It is expected that the Lochinvar URA will accommodate approximately 5,000 additional dwellings (NSW Department of Planning 2006). The rezoning of the subject land and surrounding area from rural to residential zoning has provided opportunity for residential development within the URA. The current minimum lot size control of 450m<sup>2</sup> under the Maitland Local Environmental Plan (LEP) 2011 also supports the regional housing targets, permitting more intensive residential development than currently at the site.

#### 2.1.2 Surrounding Development

The surrounding area is undergoing significant change from rural landscape to cleared vacant lots suitable for residential development. The Lochinvar URA will soon be an urban area as residential development occurs on the vacant lots.

The emerging character is illustrated within the immediate vicinity of the subject site with newly created lots located to the west within DP1273039, DP1273038, DP1275226 and DP1256013. Approved residential lots are also currently under construction on Lot 12 DP1195444. These developments clearly illustrate that the character of the Lochinvar URA is rapidly changing to urban residential as a result of strategic planning for the area.

Review of these developments also reveals that lots sizes are typically within the 450m<sup>2</sup> to 650m<sup>2</sup> range. For example, 45.6% of lots within approved DA/2017/2585 are between 451m<sup>2</sup> to 549m<sup>2</sup> in area with 30.1% of lots having areas between 550m<sup>2</sup> to 649m<sup>2</sup>. Lot areas within DA/2012/3005 are also on average between 550m<sup>2</sup> to 650m<sup>2</sup>. This illustrates that smaller residential lots are dominate throughout the URA.

#### 2.1.3 Transport and Infrastructure

There are no existing public transport facilities within 400 metres of the development site. The nearest bus stop is located on the New England Highway near Robert Road approximately 2 kilometres west of the site. Lochinvar Train Station is located approximately 5 kilometres southwest of the site.

Bus routes will be extended through the URA as development proceeds.

There are no existing bicycle or pedestrian pathways near the site except for a small on-road bicycle lane provided at the New England Highway / Winders Lane intersection to facilitate safe passage for cyclists through this intersection.



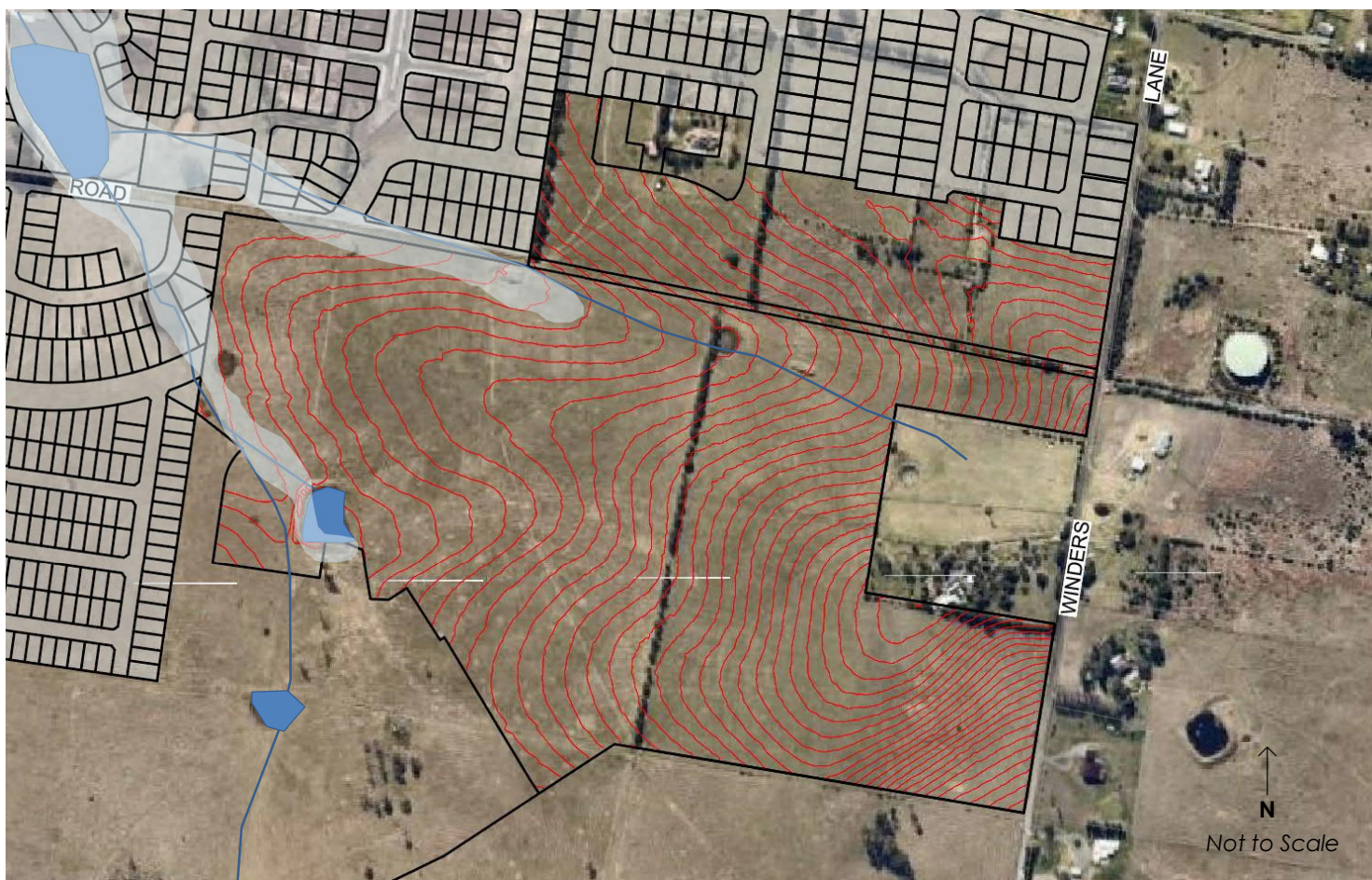


Figure 3: Site Features, Topography, Watercourses and Flooding (BRS; December 2021)

## 2.2. Site Context

The real property description of the site is Lots 2 and 3 DP1256730, located at 799 New England Highway and 70 Christopher Road, Lochinvar. Figure 3 illustrates the existing conditions of the development area.

The area subject of this application is free of significant natural constraints and does not contain significant vegetation nor mapped as bushfire prone land. The site contains a small portion of flood prone land in association with the mapped watercourses.

### 2.2.1 Vegetation

Currently the site is used for grazing purposes and is largely cleared of vegetation. Trees and vegetation within the site are mostly comprised of exotic grassland with some planted native and exotic vegetation along windrows. No vegetation within the site is commensurate with a native Plant Community Type. The development area does not contain any significant vegetation.

### 2.2.2 Bushfire

At time of lodging the development application, a small southern portion of land within the subject lot and external to the development area is mapped as bushfire prone land.

### 2.2.3 Topography

The topography of the subject land is illustrated within Figure 2. The topography gently descends from the eastern portion terminating at a low ridge along Christopher Road, which visually separates the southern portion of the site from New England Highway to the north. The site generally has a crossfall to the west, sloping between 2° and 6°.

### 2.2.4 Watercourses and Flooding

The site contains two dams and first order watercourses that flow in a north-west direction through the site. The watercourses within the development area are better described as natural gullies temporarily subject to flows immediately after rain events. The watercourses lack a defined channel and associated riparian vegetation. A small portion of the site is affected by flooding in association with the watercourses. The watercourses and flooding are illustrated in Figure 2.

### 2.2.5 Services

The site is located within close proximity of existing power, telecommunications, sewer and water infrastructure.





Figure 4: Future Vision for Lochinvar Ridge Estate (Heard Agency; December 2021)



Figure 5: Local Park Entry Features (Terras Landscape Architects; October 2021)

### 3 Concept Design

#### 3.1. Vision

The proposed subdivision will feature a variety of spaces and excellent public facilities that promote high-quality residential living. The development aims to provide a new planned residential community that is connected to the greater Lochinvar area through the provision of linked transport networks, connected green spaces and lots that support opportunities for high quality urban living.

#### 3.2. Design Principles

The following urban design principles underpin the subdivision design and have been created in response to the site conditions:

- maximise connectivity to surrounding residential areas, commercial precinct and New England Highway transport corridor;
- provide wide, public streets to provide a sense of place and integrate the new development into the existing and future urban fabric;
- integrate the landscape and open space areas to promote quality public spaces;
- support a diverse range of housing opportunities in the context of the URA;
- provide high residential amenity; and
- promote resource, energy and water efficiency.

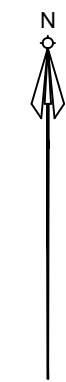
#### 3.3. Design Outcome

Three key outcomes have been implemented for the subdivision development:

- Connectivity
- Quality Public Spaces
- High Urban Amenity

These outcomes are evident within the overall master plan for the development. This plan illustrates the proposed development within its context of surrounding approved and future development.





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NEW ENGLAND HIGHWAY  
LOCHINVAR**

Designed: DE  
Drawn: MAC  
Checked: DE

Scales: Plan 1:3000

Datum: N/A

Plan No.  
**ID196344**

File Ref.  
**14/46**

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Figure 6: Connectivity (BRS; December 2021)

## 4 Design Response

### 4.1. Connectivity

The site is an important land holding within the Lochinvar URA with approved subdivisions surrounding the development area. The site analysis for the subject land illustrates opportunities for the development to create connections to surrounding residential, commercial and public open spaces within the Lochinvar URA.

The proposed development demonstrates excellent connectivity and subdivision design. This is achieved by:

- proposed roads form an extension of the Lochinvar URA through the provision of the main trunk road through the development;
- the subdivision design is an extension of the approved public road network and integrates with existing and future transport connection points;
- the staging of the development is orderly and reflects the expected construction of the road network with stages 8 to 13 to connect to approved stages 1 to 7;
- the main road within stage 14 will provide a key transport link for the Lochinvar URA. This road will connect future commercial development located to the west to the Wyndella Traffic Control Signals and New England Highway to the north. Stage 14 is proposed to be constructed at a time when surrounding link roads on adjoining development have been completed and dedicated as public road;
- the proposed street typology is consistent with Council's Structure Plan for the Lochinvar URA;
- the main trunk road feeds traffic through the centre of the development, making it easily accessible to all lots throughout the subdivision. Local roads provide appropriate connections to the main collector road;
- the application proposes road reserves and carriageways that provide for street trees, pedestrian facilities, public transport including bus facilities every 400m on appropriate roads, parking and utilities; and
- block lengths are limited to maximum 290m, although the average block length is approximately 200m to improve walkability through the site. Block widths have also been reduced and additional local streets and intersections provided to increase permeability through the site. The average block width is approximately 80m.





Figure 7: Overall Landscaping Strategy (Terras Landscape Architects; October 2021)

## 4.2. Quality Public Spaces

The subdivision incorporates quality public spaces that are linked through the provision of landscape elements, placemaking features and open space. The development will support the creation of a new residential area, which respects the existing significant features of the site and existing characteristics of the surrounding area.

### 4.2.1 Landscaping

The proposed development establishes streetscapes and open space areas and that contribute to the overall urban greening of the URA. The proposal demonstrates high quality landscape design for public spaces. This is achieved by:

- landscape buffer with a range of plantings to Winders Lane to visually enhance perimeter of subdivision and reduce visual impacts on surrounding rural zoned land. Landscape buffer provides long term solution to reducing visual impacts of development through the provision of wider road reserve rather than inclusion within private allotments;
- variety of street trees provided with species reflecting the hierarchy of the street;
- landscape design and features integrate with approved stages 1 to 7 of Lochinvar Ridge Estate with entry features at New England Highway carried through the development and included within the local park; and
- range of trees, shrubs and grasses provided within local park and drainage reserves to encourage wildlife and enhance use by providing aesthetically pleasing spaces with a variety of visual elements.

### 4.2.2 Public Spaces

The subdivision creates high quality public open space that supports the functions of the greater Lochinvar URA. Passive and active recreation areas are spread throughout the development to increase walkability and accessibility.

The local park delivers an energized and vibrant gathering place within the heart of the subdivision. The public space is provided within the northern portion of the site to cater for approved stages 1 to 7 as well as those lots subject of this application. The park has been positioned in accordance with the Lochinvar Section 94 Contributions Plan 2014.

The local park provides high quality facilities and amenities including equipment for children and adults, formal and informal seating areas, pathways and landscaped areas. The public space encourages opportunities for a diversity of uses and casual social interaction between future residents of Lochinvar Ridge Estate.

Stormwater detention areas can be simultaneously used for passive recreation. These spaces will be appropriately landscaped to encourage high use and activity.

The subject development supports the future subdivision of surrounding land, which will assist in the provision of a hierarchy of public spaces throughout the URA.



Figure 8: Winders Lane Landscape Buffer (Terras Landscape Architects; October 2021)





Figure 9: Local Park (Terras Landscape Architects; October 2021)



Figure 10: Subdivision Elements and Features (Terras Landscape Architects; October 2021)

### 4.2.3 Place Making

The subdivision creates a new place that respects the sites existing context and restores the importance of significant features and surrounding rural lands. A key focus in the development process has been creating a high-quality residential living experience for residents of Lochinvar Ridge Estate.

The proposal delivers rich placemaking outcomes. This is illustrated by:

- visual connections throughout the development to create overall look and feel, which optimise opportunities for wayfinding and linking of public open spaces to increase overall user comfort;
- wide open streets provided with roads and pathways encouraging residents to use public space including for walking, cycling and casual social interactions;
- high quality public gathering spaces to promote activity and diversity;
- local park designed to encourage residents to feel an overall sense of responsibility for its use and condition;
- transparency and connectivity between public space and private spaces for future dwellings;
- overall theme implemented for Lochinvar Ridge Estate including landscape design, provision of larger style lots and subdivision features that carry through from stages 1 to 7; and
- future street names to reflect cattle breeds as in approved stages 1 to 7 to provide identity and respect agricultural history of the site and surrounding land.



### 4.3. High Residential Amenity

The proposed subdivision provides high amenity to future occupants of the lots. The provision of larger lots, landscaped streetscapes and connected green open space will provide a positive environmental outcome for future residential use of the site. The larger style lots allow plenty of opportunity for high quality residential living with landscaping for greening of the urban area and deep soil zones for stormwater control.

#### 4.3.1 Lot Size and Mix

All proposed lot types comply with the minimum lot area and enable future desirable building form to be achieved on the lots.

The proposed lot size and mix has been provided with appropriate consideration given to the existing and approved lot sizes of surrounding development.

Approved development within the locality tends to have lot sizes of around 450m<sup>2</sup> to 650m<sup>2</sup> in area. These approved developments are illustrated in Figure 2 above.

The proposed development has been designed to provide larger residential lots having consideration for the availability of smaller lots within the Lochinvar URA. Lot size is ultimately determined by market demand, and it is expected that there is demand for larger style lots within the Lochinvar URA.

The proposed development contains a broad range of lot sizes varying from 725m<sup>2</sup> to a small number of lots over 1,000m<sup>2</sup>. The majority of lots are between 800m<sup>2</sup> to 849m<sup>2</sup> (52.63%) with the remaining lots being a mixture above and below these areas.

Table 1 below provides details of the lot mix and sizes for the development.

Table 1 – Lot Mix and Sizes

Lot Size	Stage 8	Stage 9	Stage 10	Stage 11	Stage 12	Stage 13	Stage 14	Total %
<750m <sup>2</sup>	1	-	-	1	-	-	1	<b>0.99</b>
750 – 799m <sup>2</sup>	9	5	8	6	19	12	5	<b>21.05%</b>
800 – 849m <sup>2</sup>	17	28	28	37	16	30	4	<b>52.63%</b>
850 – 949m <sup>2</sup>	3	13	15	6	8	3	4	<b>17.11%</b>
950 – 1049m <sup>2</sup>	-	2	5	2	1	1	2	<b>4.28%</b>
>1050m <sup>2</sup>	-	1	2	2	3	2	2	<b>3.94%</b>

Table 2 provides the average lot size per each stage of the development.

Table 2 – Average Lot Size

Stage	Average Lot Size
8	795.87m <sup>2</sup>
9	862.73m <sup>2</sup>
10	770m <sup>2</sup>
11	829.70m <sup>2</sup>
12	809.53m <sup>2</sup>
13	806.5m <sup>2</sup>
14	882.7m <sup>2</sup>

The proposal has appropriately considered the greater overall context of the URA and responded to those approved developments within the locality with a mix of lot sizes being predominately within the 450m<sup>2</sup> to 650m<sup>2</sup> area range.

The larger style lots also produce greater positive environmental outcomes for the site including provision of larger areas for deep soil planting, maximising opportunities for landscaping, increased urban greening, minimising stormwater impacts and reducing urban heat loading. This provides for higher urban amenity and comfort for future residential dwellings. Considering the positive environmental outcomes and context of surrounding development the proposed lot sizes and mix can therefore be supported.

#### 4.3.2 Solar Access

The proposed lots have been positioned to allow solar access to the main living areas and private open space of future dwellings. The design maximises solar access and allows flexibility in the siting of future buildings to take full advantage of the northern aspect.

Where a lot is positioned with future living areas and private open space positioned with primary southern aspect, the lot is provided with an appropriate width to allow for future building designs that increase opportunities for solar access from the northern, eastern, and western aspects.

Considering the size of the lots, it is unlikely future residential development will create overshadowing impacts on adjoining lots as appropriate lot dimensions have been provided to allow larger setbacks from side or rear boundaries as required for development to avoid adverse shadow impacts.



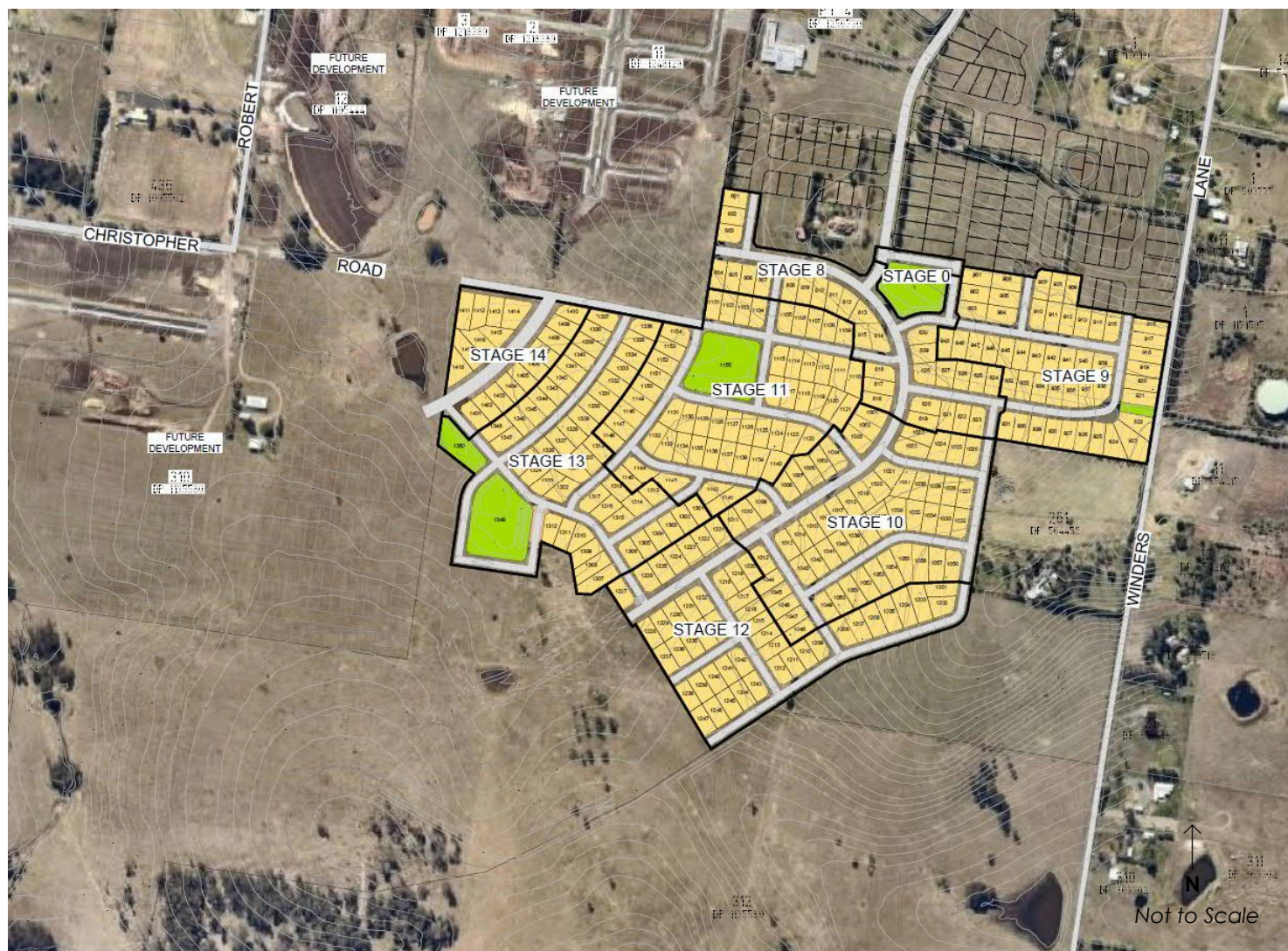


Figure 11: Subdivision Layout (BRS; October 2021)

## 5 Conclusion

The subdivision design concept has been developed in response to the overall URA context, the evolving vision for Lochinvar Ridge Estate and detailed analysis of site constraints and opportunities associated with the future urban area.

This report highlights the proponent's commitment to improved residential outcomes and holistic approach to integrated subdivision design and the development process.

The proposal has implemented a wide range of design measures to deliver excellence and a rich residential living experience with connectivity, quality public spaces and high urban amenity as key priorities.