



19 July 2018

Shaun Nicholson  
Development Manager  
Newland Developers Pty Ltd

## RESPONSE TO INFORMATION REQUEST

**COUNCIL REF: DA09/0701.03 LN35979**

**TSC SUBMISSION ALTITUDE ASPIRE RESIDENTIAL SUBDIVISION  
MP09/0166 MOD 3**

Dear Shaun,

Please find below our letter to be forwarded on to the NSW Department of EPlanning & Environment in response to the abovementioned Information Request dated 11 of May 2018.

Responses below correspond with items listed under the 'Conclusions' section of the letter and in particular under the 'Amended Landscaping Plans' subsection.

### **Amended Landscaping Plans**

*a. The title of the landscaping document should better reflect its purpose and coverage. It is suggested that 'Permissible Change' be altered to 'Landscape Master Plan – Stages 1 to 10'.*

Title amended as requested.

*b. Generally, the plan should reflect prior advices provided by Council in conjunction with construction certificate applications for Stages 3 and 4 – which address the parks in Stages 4, 6 and 7.*

Plans have been updated to reflect prior advices for Stages 3 and 4.

*c. Sheet 2: commentary under 'Introduction', 'Entry Precinct' and 'Drainage Corridor' requires updating, as they reference obsolete or rejected features – being the former Community Recreation Centre, a split road entrance, and the water bodies.*

Commentary has been updated with the obsolete items removed as requested.

*d. Regarding the central drainage reserve, the system of paths, elevated boardwalk, park shelters and related park furniture is supported, with the following matters to be specifically addressed:*

*i. Such infrastructure must be of minimal maintenance and above the anticipated 1% AEP flood level.*

Materials used for infrastructure will consist of either composite timber, powder coated steel, galvanised steel, or aluminium. All infrastructure is above the 1% AEP.

*ii. The elevated boardwalk and similar must be of low maintenance composite material.*

The boardwalk/deck area will be built of low maintenance composite timber.

*iii. Other park furniture in the drainage reserve must be off-the-shelf products consistent with Tweed Shire's Development Design Specification D14 Landscaping Public Open Space.*

Noted. This level of detailed specification will be nominated through Construction Certificate documentation.

*iv. Ensure maximum permeability for people movement via the path system, including entry and exit to the reserve. Bicycle access should be considered.*

Pedestrian permeability has been maximised where possible, however, due to the steep nature of entry points off Market Parade and Ossa Blvd, it is not viable to include ramps in these locations. Bike ramps are to be provided adjoining the stairs to Ossa Blvd.

*v. Ensure there is adequate access for maintenance, particularly for maintenance vehicles.*

Adequate access is provided throughout the drainage reserve as indicated on the circulation network diagram shown on page 5. Note that pedestrian access is the only viable option along the drainage channel due to the size of rocks required to resist water velocities in peak storm events. Vehicle maintenance access is provided to the drainage channel at strategic points with space for turnarounds. Refer to the Civil Engineering response for more detail in regards to this matter.

*e. There will be vegetation and weed management requirements in the drainage reserve. An extended maintenance period by the developer may be needed to ensure satisfactory establishment, before Council will accept this responsibility.*

The intention will be for a two-year maintenance period to be provided for the drainage reserve. This will be performance based with the performance requirements set out in the Construction Certificate application and as per Council's requirements. Once the agreed criteria have been met, then hand over to Council can occur.

*f. Sheet 3: the frontages of the following lots have been overlooked for street frontage treatment (tree planting): Lot 1112 fronting Market Parade; Lots 501 and 502 fronting Parkes Lane.*

An indicative street tree and new turf has been added to these two lots.

*g. Sheet 4: delete the 'Water Body / Frog Ponds' as they are not supported by TSC.*

Water bodies and frog ponds have been deleted as requested.

*h. Sheet 5: the eastern side of the Drainage Reserve now depicts a 'straight' access path up the batter slope to Ossa Blvd, whereas the existing approved plans show an angled path. This appears to have created a scenario for stairs up this batter slope – as depicted on plan SK 3618 Rev.E (Annexure 'H'). The preferred option would be for a ramped access to avoid stairs. The applicant is requested to demonstrate why stairs are proposed in lieu of a ramp.*

As mentioned under Item D.v.a ramp was considered however the extent on additional retaining walls and earthworks required to make the ramp DDA compliant was cost prohibitive and would also impact the hydraulic models through the drainage reserve. Retaining walls are also supposed to be prohibited within the drainage reserve as per DCP 24.

*i. Similarly, access to the Drainage Reserve from the south end appears to incorporate stairs and scattered steps, as depicted on Bradlees plan SK 3618 Rev.E. Stairs are to be avoided wherever possible and the applicant is requested to demonstrate an access option without stairs, if at all feasible.*

Again, installing a ramp in this location is not feasible due to earthworks and retaining required to make the ramp DDA compliant and would also impact the hydraulic models through the drainage reserve. There is also civil infrastructure through this area that paths need to stay well above.

*j. If stairs are unavoidable, they are to be compliant with AS 1428 and all plans are to be annotated accordingly.*

Agreed, this level of detail will be provided through the Construction Certificate documentation phase.

*k. Sheet 12: the 'water body' is not supported and is to be deleted. Also delete the other minor 'water bodies' shown mid-site that are barely distinguishable.*

This water body has been deleted as requested.

*l. Sheet 15: the 'Bebo Arch' photo should be deleted as it is no longer proposed.*

This image has been deleted as requested.

*m. Sheet 16: 'Pocket Park 1' has been altered as a consequence of the Stage 4 CC submission to Council. This sheet should be amended to accord with the latest amendments.*

This sheet has been updated as requested.

*n. Sheets 21 and 22: the current Planting Palettes as nominated on these sheets do not appear to comply with the current requirement for the area to be treated as an 'Inner Protection Area', and are likely to require amendment to accord with the intended amendments to the Bushfire Assessment Report.*

Eucalypt species have been deleted from this planting palette, however a detailed planting plan that is compliant with the relevant bushfire management plans will be provided as part of the Construction Certificate applications.

*o. Proposed landscaping in sewer corridors / easements in public reserves and drainage reserves shall be amended to remove rock walls and large tree plantings from those areas.*

Civil infrastructure has been amended to avoid retaining walls. Tree locations on our graphics plans are indicative only. A detailed review of their locations will occur during the Construction Certificate phase so that they can avoid civil infrastructure.

*p. Bushfire implications:*

*i. While the central drainage reserve is to be managed as an Asset Protection Zone (APZ) no specific Inner Protection Area (IPA) or Outer Protection Area (OPA) distances were specified. APZ management requirements include the maintenance of "minimal fine fuels...at ground level", that "any tree present have a minimum canopy separation of 2 metres" i.e. at mature size and that "any trees present are not species that retain dead material or deposit excessive amounts of ground fuel on a short time".*

*The proposed planting regime is likely to contravene the requirement to maintain this area as an APZ by introducing large volumes of fine, near ground and ladder fuels, and should be reviewed.*

Refer to the latest Bushfire Management Plan for the updated approach that will be taken. While our plans have been updated to show greater separation of trees in the areas of concern, it is to be noted that these locations are indicative only and will be reviewed during the detailed Construction Certificate phase.

*ii. Any development consent requires establishment of a mechanism for the maintenance of APZs over the life of the development, including access provision for maintenance by Council of the steep batters, creek/low flow channel and other areas on this site. The Landscape Plan does not address these.*

Refer to the latest Bushfire management plan for requirements within the APZs. The landscape plans will meet the requirements of this report which will see use of high moisture rainforest species with closed canopies where possible, and vigorous fire retardant ground covers where separation is required between tree canopies. Maintenance vehicle access is generally provided at either the top or bottom of each steep batter. In some cases, both the top and bottom can be accessed by a maintenance vehicle. From here maintenance access for weed removal and the like can be achieved on foot via a series of benches provided every 2.5m of vertical drop as indicated on the Civil Engineers documents.

As mentioned under Item D-v, pedestrian access is the only viable option along the drainage channel due to the size of rocks required to resist water velocities in peak storm events.

Vehicle maintenance access is provided to the drainage channel at strategic points with space for turnarounds. Refer to the Civil Engineering response for more detail in regards to this matter.

*iii. Landscaping design adjacent to Broadwater Parkway (providing a 21m wide APZ) appears incompatible with the need to maintain this area as an IPA.*

The landscape plans have been updated to meet the requirements of the updated Bushfire Management Plan. This includes vigorous fire-retardant ground covers and rainforest tree species that have been spread further apart to achieve 2m canopy separation. An additional 1m wide gravel strip is to be installed beside lot 316 for additional buffer.

*iv. Tree species should be spaced much further apart than is indicated on the amended Landscape Plan to ensure that "any tree present have a minimum canopy separation of 2 metres"; i.e. the mature canopy size of the trees would need to be considered. It is likely that tree planting centres would need to be 7-9m apart for this to be achieved.*

Trees have been spread further apart to achieve 2m canopy separations where required by the Bushfire Management Plan. Note that trees shown on our graphics plan are indicative only and final positioning will be reviewed during the Construction Certificate documentation phase.

*v. As a result of the amendments to the Landscape Master Plan it is recommended that the Bushfire Assessment Report be updated to address issues of compliance with PBP 2006.*

The Bushfire Assessment Report has been updated as requested.

*vi. Plant species selection:*

- The use of sclerophyll tree species is at odds with APZ management requirements that "any trees present are not species that retain dead material or deposit excessive amounts of ground fuel on a short time"; the use of Spotted Gum (Corymbia citriodora a sclerophyll species) is further unsupported as it is a non-locally occurring native species.*

These species have been removed from the planting palette and will not be used in bushfire risk areas.

- The use of Bangalow Palms (Archontophoenix cunninghamiana) along the central drainage reserve is not supported due to their potential to block drainage lines with large volumes of dropped fronds and due to the maintenance burden this will generate for Council*

Archontophoenix cunninghamiana has been removed from the central drainage reserve as requested.

If you require anything further, please don't hesitate to contact me on (07) 3216 0606.

Kind Regards,

**Rob Henderson**

Senior Landscape Architect

ALTITUDE ASPIRE TERRANORA  
LANDSCAPE MASTERPLAN STAGES 1-10

NEWLAND DEVELOPERS PTY LTD





INTRODUCTION.

Form Landscape Architects have been engaged by Newland Developers Pty Ltd to prepare a Landscape Masterplan and Landscape Design Intent report for the Altitude Aspire residential subdivision located at Terranora in the Tweed Shire.

The original Landscape Master Plan dated 1 December 2010 has been amended to address the amended Subdivision Layout, the provisions of Tweed Development Control Plan 2008, Section B24 Area E Urban Release Development Code and issues raised by Tweed Shire Council, State Agencies and members of the public in their submissions lodged during the public exhibition stage.

- The landscape design philosophy for the project is encompassed in the following key statements:
- To generate an integrated built and landscape environment that embraces the surrounding endemic landscape character;
- To develop a landscape character that reinforces a unique and memorable landscape experience and identity;
- To provide a choice of passive and active recreational opportunities throughout the developments open spaces and parks;
- To compliment the built environment structure and its details;
- To integrate the water management landforms throughout the site into the landscape design to provide a seamless natural landscape aesthetic;
- To create an aesthetically pleasing, engaging, and safe environment for the resident population.

In order to explain how this design philosophy has been achieved the development can be described under the following key areas. The Entry Precinct, neighbourhood playground park, revegetated drainage corridor, and the residential streetscapes.

THE ENTRY PRECINCT.

The entry precinct is located centrally to the northern boundary of the site framed by parkland to the west, a community recreation area to the east and wetlands to the north. The approach to the development entry along Broadwater Parkway from the east provides a strong visual connection into the revegetated drainage corridor with treatments to the road edge to give the perception of crossing a bridge over the reinstated dry creekline. From the west a tree lined boulevard will be provided flanked along the development boundary with a dense vegetation buffer on a steep bank. The experience on this approach will be predominantly natural with views promoted over the adjoining wetland and adjoining landscape.

At the roundabout to the site a series of stone gabion and precast concrete blade walls will frame the entry road into the site. The textures will be combined to create a balance between contemporary and natural elements. Elevated development signage will introduce the development branding and identity and a Hoop Pine boulevard will define the entrance reinforced by transitional pavement treatments.

INTRODUCTION

NEIGHBOURHOOD PLAYGROUND PARK.

The proposed neighbourhood park is located on the eastern side of the development entry. The park grades away from the road and will be manipulated and contoured to provide a series of terraced pockets interconnected by a meandering accessible pathway. The design intent is that all grassed areas will not exceed 1:6 grade for ease of maintenance and where grades do exceed 1:6 garden beds will be installed with low maintenance native planting palettes. Views can be experienced from sections of the park and the elevated position has been embraced capturing the favourable climatic influences. The children’s playground will endeavour to integrate elements of natural play in the form of climbing rocks, tree stumps, and mounding with structured formalised play elements and interactive sculpture. Picnic shelters will be located at the most elevated section of the park overlooking the playground and park to the distant north-eastern valley. A public toilet facility will also be provided.v

DRAINAGE CORRIDOR.

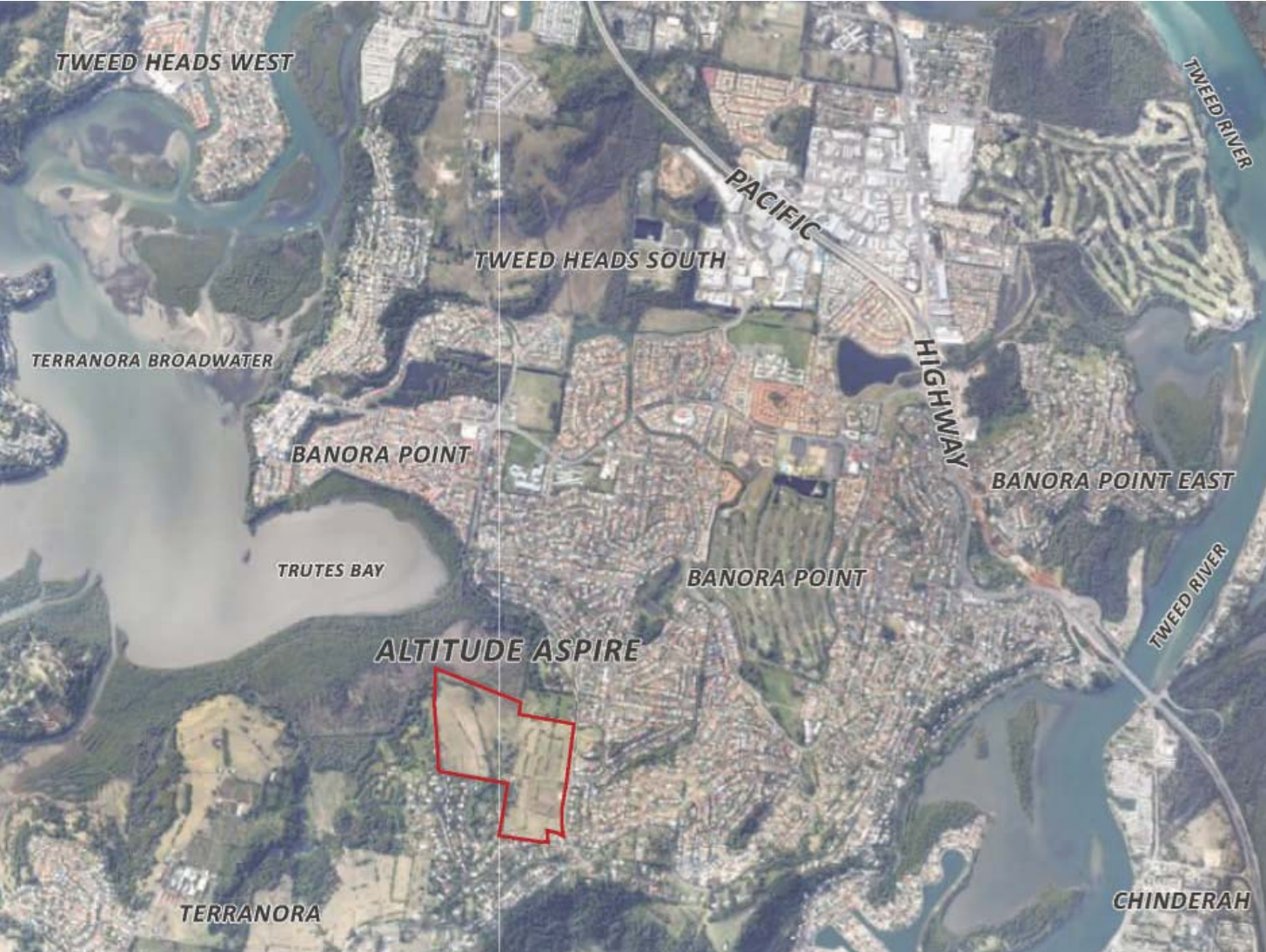
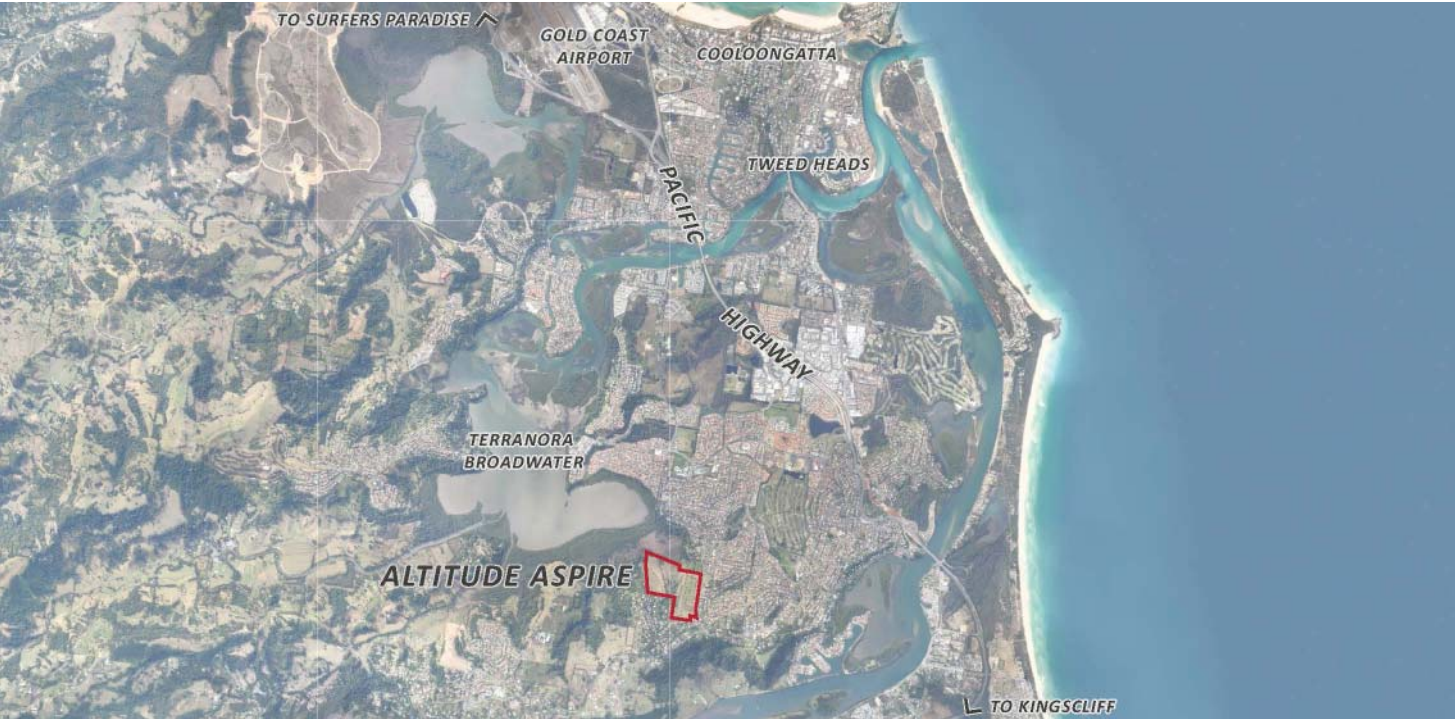
A major feature of the estate is the central drainage reserve that will be used for the conveyance and treatment of storm water from the southern boundary of the site to Broadwater Parkway to the north. The elements that provide these functions will be constructed in a way to take on a relatively natural form and revegetated to become a mix of shaded rainforest gully and open sedge grasslands, both of which will provide important habitat for local fauna.

Various viewing and passive recreational experiences are available throughout the reserve with pedestrian access weaving its way through regenerated closed rainforest and open sedge grasslands. The central low flow channel will be lined with site boulders and fringed by endemic species to provide a distinctive natural setting. A raised boardwalk will connect pedestrians across the central weir to a sheltered picnic and wildlife viewing area providing a focal point for the reserve. Stairs also connect to Ossa Road in the east and Market Parade to the south. Informal maintenance tracks provide additional pedestrian connectivity throughout the reserve.

All required maintenance paths and safety fencing will be integrated into the design in a way that it is complementary to the natural landscape character.

RESIDENTIAL STREETSCAPE.

Legibility of the street network throughout the site will be enhanced through a clear selection of street trees that will compliment the hierarchy of the streets. Trees will be selected from a palette of local endemic and native species and are intended to provide a long term series of shaded boulevards within the development. Trees will be located according to council guidelines and spaced according to the appropriate species selection. Transitional road treatments will be utilised at key intersections to enhance legibility and will consist of coloured exposed aggregate.





- 1** ENTRY PRECINCT
- 2** COMMUNITY PARK NODE
- 3** POCKET PARK
- 4** FLOODPLAIN GRASSLANDS
- 5** DRAINAGE CORRIDOR
- 6** FRASER DRIVE ENTRY
- 7** Q100

NOTE: STREET TREE LOCATIONS ARE FOR INDICATIVE PURPOSES ONLY.



Note : Tree locations are indicative only, review to occur at Construction Certificate Phase.

## LANDSCAPE MASTERPLAN

100906 | 26 JUL 18 | DA14 | NORTH 🕒 | SCALE 1:3000 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | PERMISSIBLE CHANGE | CLIENT NEWLAND DEVELOPERS PTY LTD

FIGURE 1 – LANDSCAPE MASTERPLAN



- BIO-RETENTION
- COMMUNITY PARK NODE
- POCKET PARKS
- LOW FLOW DRAINAGE CHANNEL
- REVEGETATION ZONE
- LANDSCAPE BUFFER
- ENTRY PRECINCTS
- Q100



LANDSCAPE STRUCTURE



- PARK PATHWAYS
- MAINTENANCE ACCESS PATHWAYS
- BUSH TRACK
- CONCRETE PATHWAYS
- BLUESTONE GABION RETAINING WALLS
- TRANSITIONAL ROAD TREATMENT
- MAJOR ROADS
- PRIMARY BOULEVARD
- SECONDARY SPINE ROAD
- TERTIARY STREETS



## CIRCULATION NETWORK

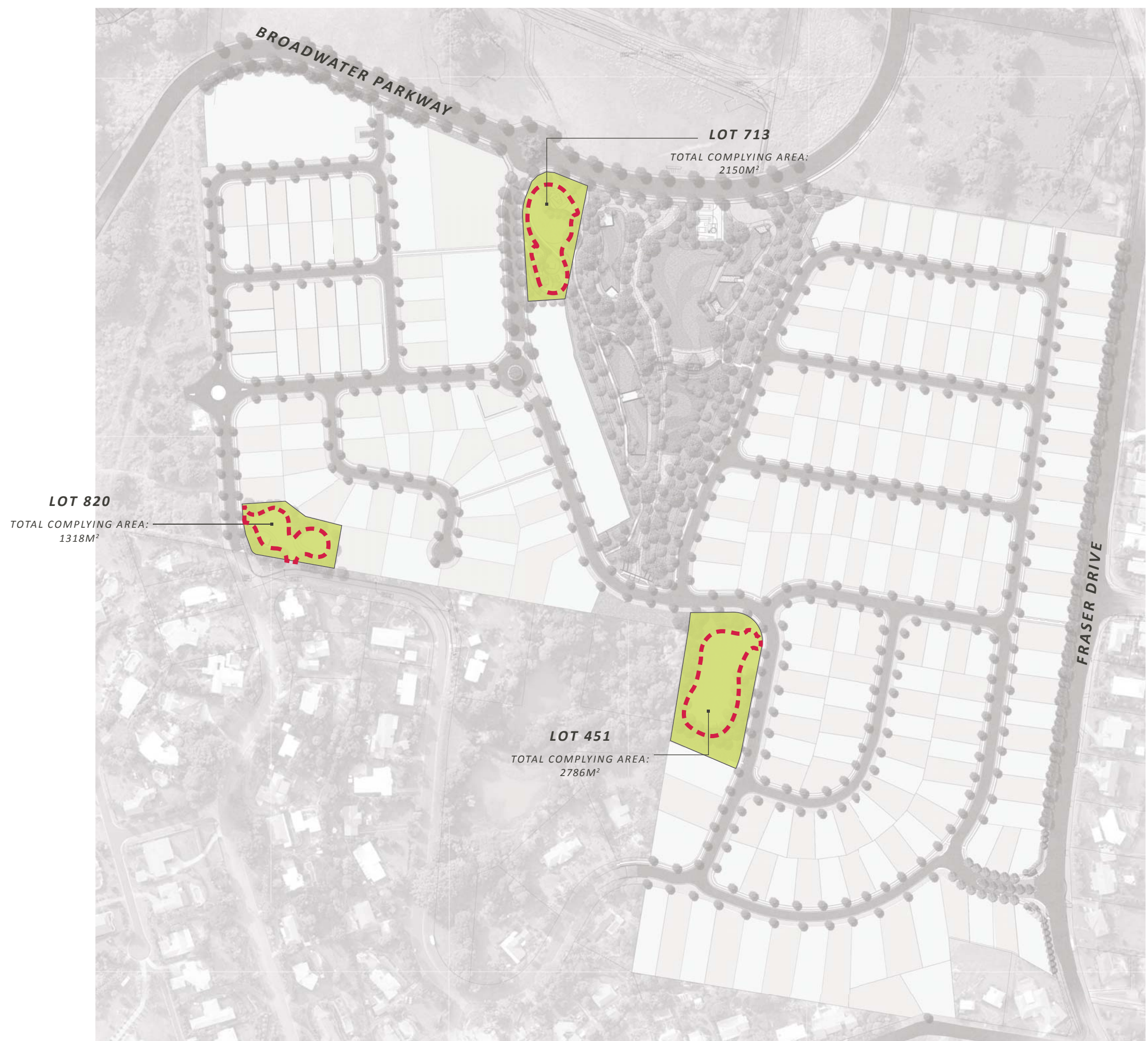
100906 | 26 JUL 18 | DA14 | NORTH | SCALE 1:3000 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | PERMISSIBLE CHANGE | CLIENT NEWLAND DEVELOPERS PTY LTD

FIGURE 3 – CIRCULATION NETWORK



--- COMPLYING AREA  
 ■ TOTAL PARK AREA



## COMPLIANCE AREAS

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FIGURE 3 – CIRCULATION NETWORK



- ALUMINIUM & TIMBER FENCE
- TIMBER SCREEN FEATURE FENCE
- TIMBER PALING FENCE
- SAFETY BALUSTRADE

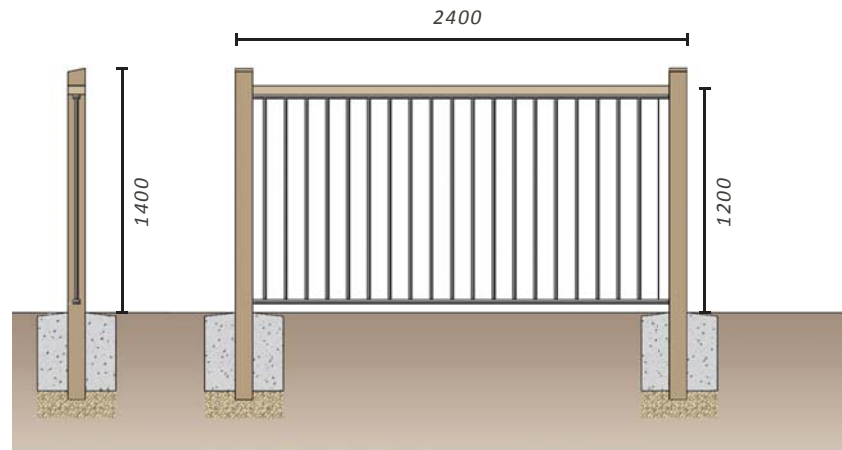


FENCE TYPES & BALUSTRADES





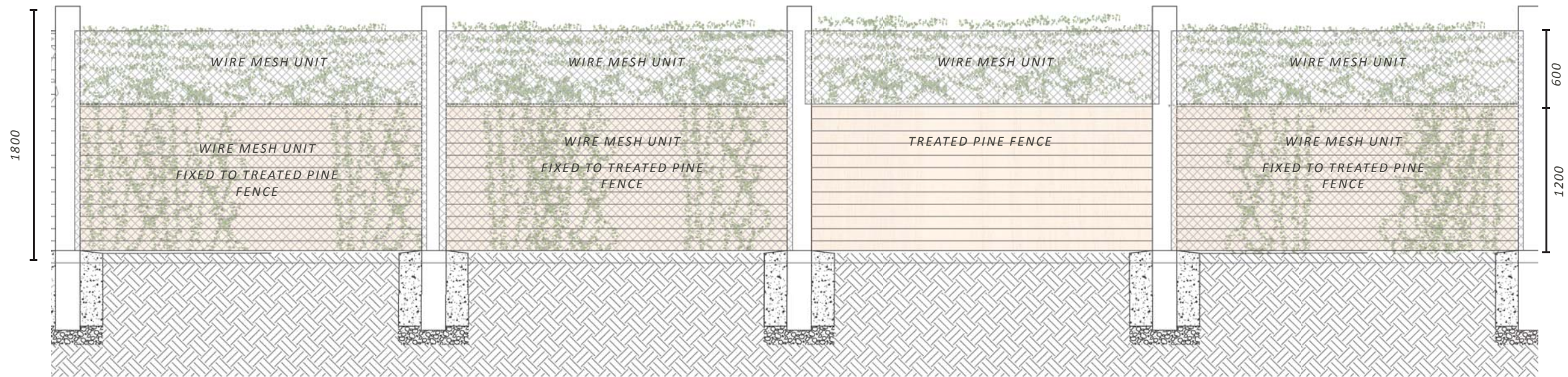
ALUMINIUM AND TIMBER FENCE



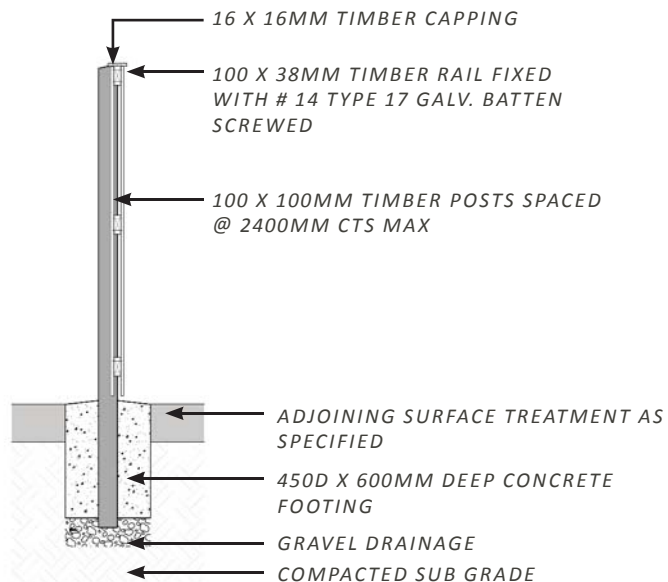
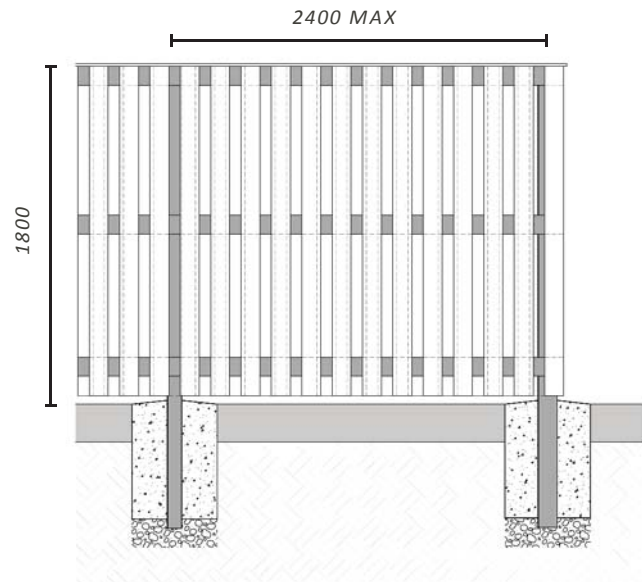
END POSTS: 100X 100 HWD  
 TOP RAIL: 100 X 50 HWD  
 BLACK POWDERCOAT ALUMINIUM POOL FENCE  
 PANEL SIZE: 2400MM  
 PANEL HEIGHT: 1200MM  
 TUBE SIZE: 19MM D VERTICAL TUBE  
 FIX TO POSTS AS PER MANUFACTURERS RECOMMENDATIONS



TIMBER SCREEN FENCE



TIMBER PALING FENCE



## FENCE TYPES

100906 | 26 JUL 18 | DA14 | SCALE 1:40 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | PERMISSIBLE CHANGE | CLIENT NEWLAND DEVELOPERS PTY LTD







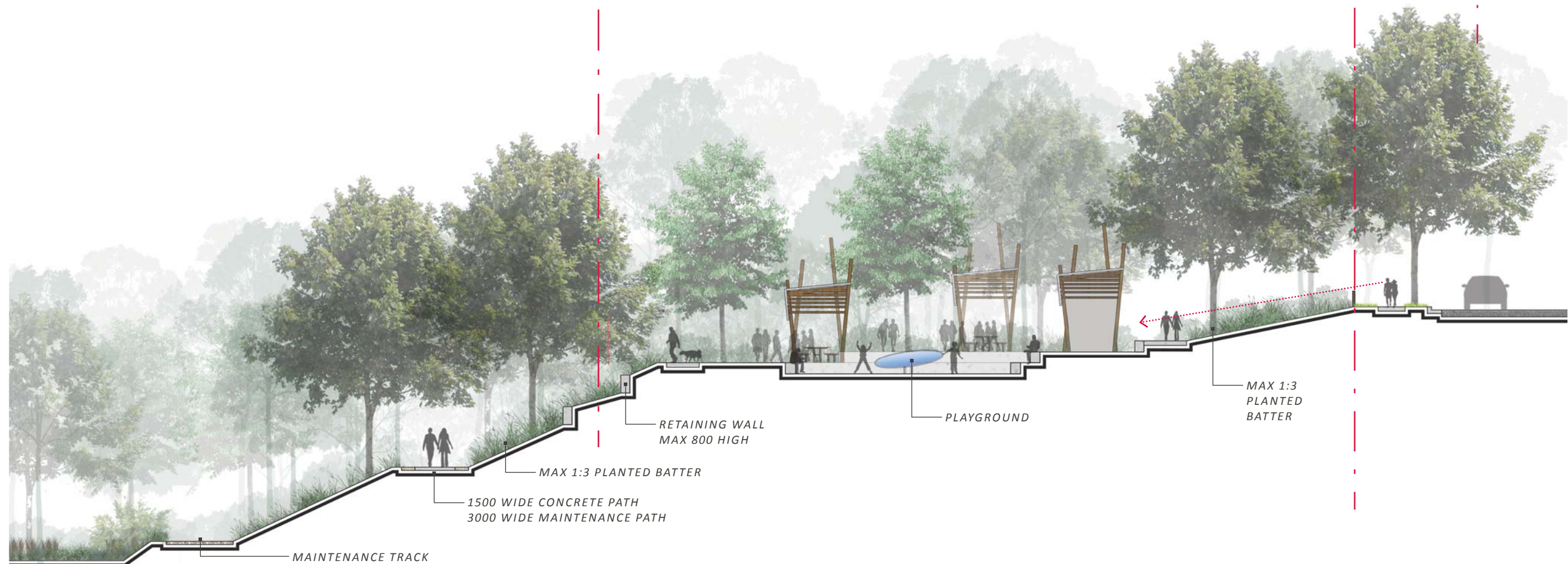


**SECTION 1**



**SECTION 1 (cont.)**



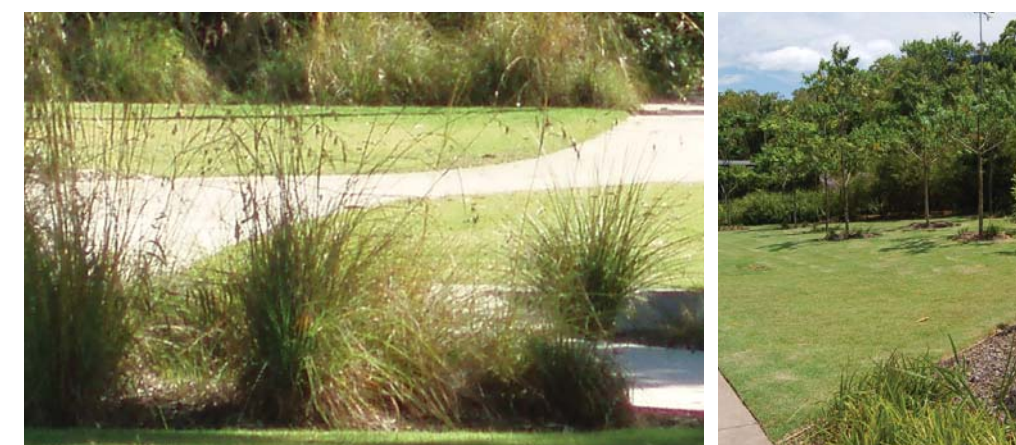


**SECTION 3**

100906 | 26 JUL 18 | DA14 | SCALE 1:200 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | PERMISSIBLE CHANGE | CLIENT NEWLAND DEVELOPERS PTY LTD





- 1 SHELTER AND DECK
- 2 BRIDGE ACROSS CREEK
- 3 SEDGES AND MARGINAL PLANTING ZONE
- 4 DRAINAGE GULLY
- 5 PARK PEDESTRIAN PATH
- 6 BIO RETENTION BASIN
- 7 GABION RETAINING WALLS
- 8 WATER BODY
- 9 Q100

## CENTRAL DRAINAGE RESERVE

100906 | 26 JUL 18 | DA14 | NORTH 🕒 | SCALE 1:1000 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | PERMISSIBLE CHANGE | CLIENT NEWLAND DEVELOPERS PTY LTD





SECTION 4

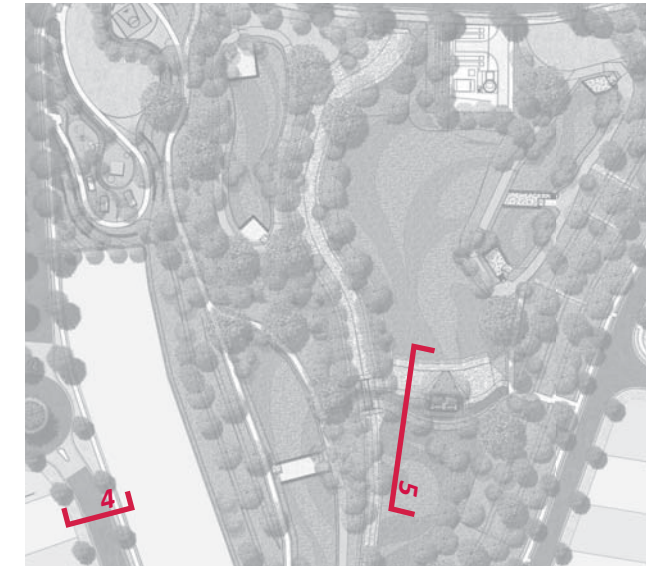


SECTION 5

## LANDSCAPE SECTIONS

100906 | 26 JUL 18 | DA14 | SCALE 1:200 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | PERMISSIBLE CHANGE | CLIENT NEWLAND DEVELOPERS PTY LTD







## SECTION 6

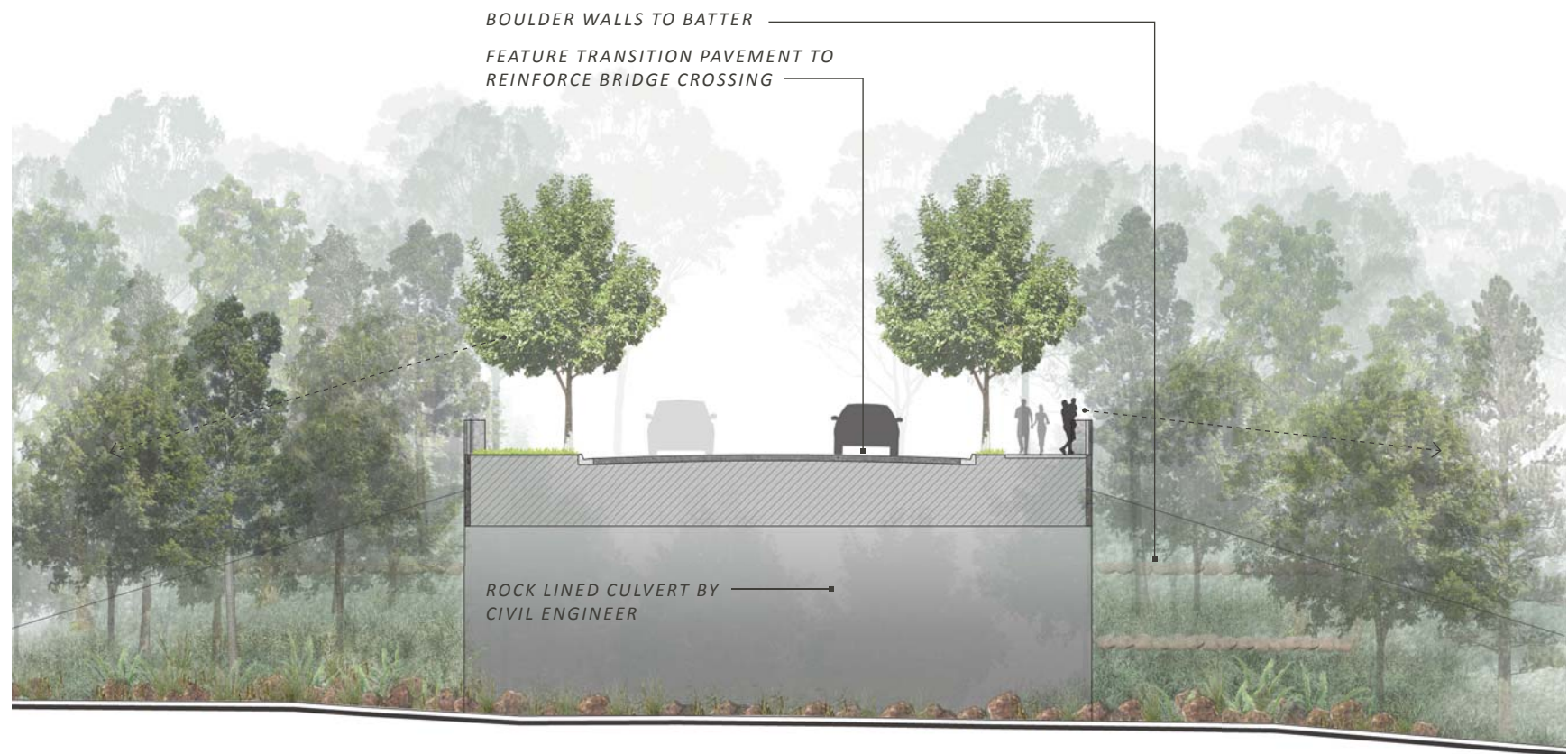
## LANDSCAPE SECTIONS

100906 | 26 JUL 18 | DA14 | SCALE 1:200 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | PERMISSIBLE CHANGE | CLIENT NEWLAND DEVELOPERS PTY LTD

FORM LANDSCAPE ARCHITECTS | 14





SECTION 7



SECTION 8

LANDSCAPE SECTIONS

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PROJECT ALTITUDE ASPIRE | TERRANORA | PERMISSIBLE CHANGE | CLIENT NEWLAND DEVELOPERS PTY LTD







- 1** PARK PATHWAY
- 2** KICK AND THROW GRASS AREA
- 3** PICNIC SHELTER
- 4** SANDSTONE TERRACE
- 5** SCREEN PLANTING TO BOUNDARY

## POCKET PARK 1

100906 | 26 JUL 18 | DA14 | NORTH 🕒 | SCALE 1:500 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | PERMISSIBLE CHANGE | CLIENT NEWLAND DEVELOPERS PTY LTD





- 1 PARK PATHWAY
- 2 BARBEQUE
- 3 TIMBER BOLLARDS AND LOCKRAIL TO PARK BOUNDARY
- 4 PICNIC SHELTER
- 5 SANDSTONE TERRACE
- 6 KICK AND THROW GRASS AREA
- 7 SCREEN PLANTING TO BOUNDARY



NEW TREES



EXISTING TREES



PROPOSED CONTOURS

## POCKET PARK 2

100906 | 26 JUL 18 | DA14 | NORTH | SCALE 1:500 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | PERMISSIBLE CHANGE | CLIENT NEWLAND DEVELOPERS PTY LTD





Note : Tree locations are indicative only, review to occur at Construction Certificate Phase.

## FRASER DRIVE ENTRY

100906 | 26 JUL 18 | DA14 | NORTH | SCALE 1:500 @ A3

PROJECT ALTITUDE ASPIRE | TERRANORA | PERMISSIBLE CHANGE | CLIENT NEWLAND DEVELOPERS PTY LTD

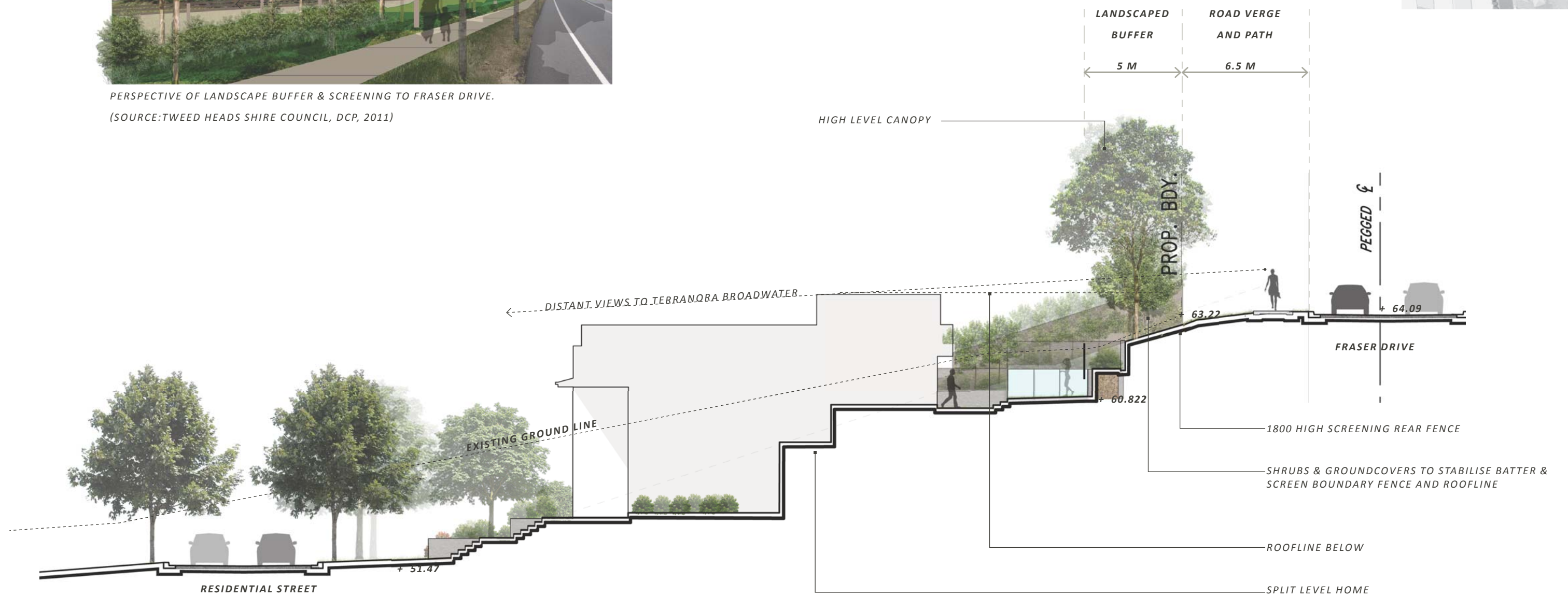
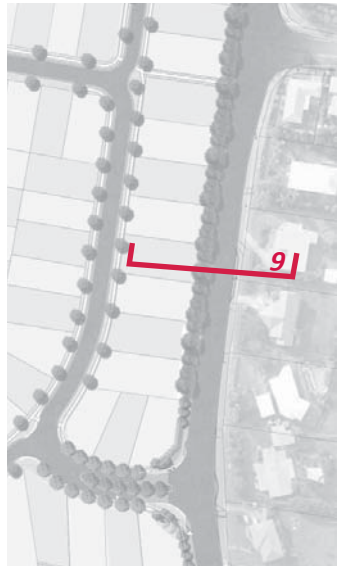


- 1 STREET TREES
- 2 TIMBER ACOUSTIC FENCE WITH SCREEN PLANTING
- 3 PATHWAY
- 4 SIGNAGE WALL
- 5 LOW LEVEL STONE WALL
- 6 BOULEVARD SHADE TREES
- 7 FEATURE ACCENT TREES
- 8 HIGH STONE ENTRY WALL/ACOUSTIC WALL
- 9 LOW PLANTING TO ROUNDABOUT
- 10 ELEVATED SIGNAGE BLADE



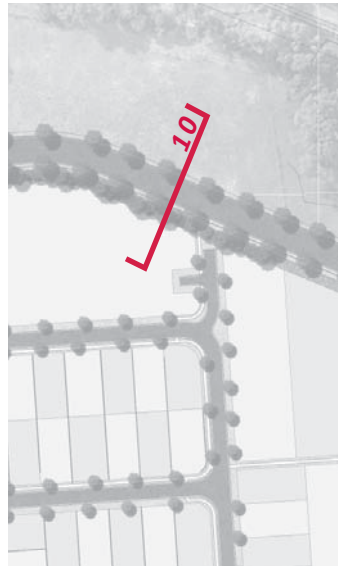
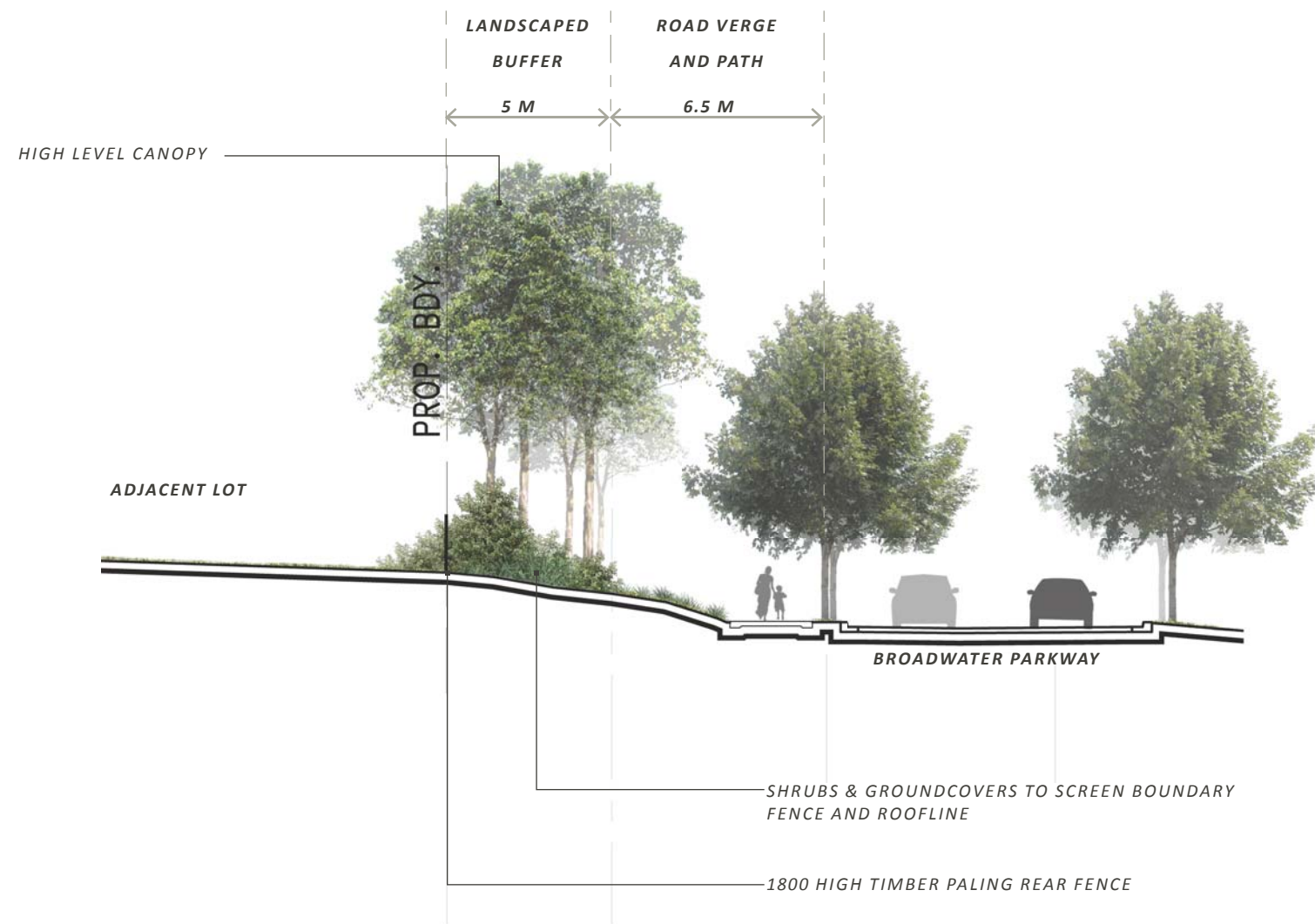


PERSPECTIVE OF LANDSCAPE BUFFER & SCREENING TO FRASER DRIVE.  
(SOURCE: TWEED HEADS SHIRE COUNCIL, DCP, 2011)



## SECTION 9





## SECTION 10



TREES

|                                     |                                  |   |   |   |   |   |   |   |   |  |
|-------------------------------------|----------------------------------|---|---|---|---|---|---|---|---|--|
| ACMENA SMITHII                      | LILLY PILLY                      | ✓ | ✓ |   |   |   |   |   |   |  |
| ALLOCASUARINA LITTORALIS            | BLACK SHE OAK                    |   |   |   | ✓ | ✓ | ✓ | ✓ |   |  |
| ALPHITONIA EXCELSA                  | RED ASH                          |   |   |   |   | ✓ | ✓ | ✓ |   |  |
| ARCHONTOPHOENIX CUNNINGHAMIA        | BANGALOW PALM                    |   |   |   |   |   | ✓ | ✓ |   |  |
| ATRACTOCARPUS BENTHAMIANA           | NATIVE GARDENIA                  |   | ✓ | ✓ |   |   |   |   |   |  |
| CALDCLUVIA PANICULOSA               | SOFT CORKWOOD                    |   |   |   |   |   | ✓ | ✓ |   |  |
| CASTANOSPERMUM AUSTRALE             | BLACK BEAN                       |   |   |   |   |   | ✓ | ✓ |   |  |
| CASUARINA GLAUCA                    | SWAMP OAK                        |   | ✓ | ✓ | ✓ | ✓ | ✓ |   |   |  |
| COMMERSONIA BARTRAMIA               | BROWN KURRAJONG                  |   | ✓ | ✓ |   |   |   |   |   |  |
| CORYMBIA INTERMEDIA                 | PINK BLOODWOOD                   |   |   |   |   |   | ✓ | ✓ |   |  |
| CRYPTOCARYA OBOVATA                 | PEPPERBERRY TREE                 |   |   |   |   |   |   | ✓ | ✓ |  |
| CRYPTOCARYA TRIPLINERVIS VAR PUBENS | THREE-VEINED LAUREL (HAIRY FORM) |   |   |   |   |   | ✓ |   | ✓ |  |
| CUPANIOPSIS NEWMANII                | LONG LEAVED TUCKEROO             |   |   |   |   |   | ✓ | ✓ | ✓ |  |
| CYATHEA LEICHHARDTIANA              | PRICKLY TREE FERN                |   | ✓ | ✓ |   |   | ✓ | ✓ |   |  |
| ELAEOCARPUS GRANDIS                 | BLUE QUANDONG                    |   | ✓ | ✓ |   |   |   |   |   |  |
| ELAEOCARPUS OBOVATUS                | HARD QUANDONG                    |   | ✓ | ✓ |   |   |   |   |   |  |
| ELAEOCARPUS RETICULATUS             | BLUEBERRY ASH                    |   | ✓ |   |   |   | ✓ |   | ✓ |  |
| FICUS CORONATA                      | CREEK SANDPAPER FIG              |   | ✓ |   |   |   |   |   |   |  |
| FICUS MACROPHYLLA                   | MORETON BAY FIG                  |   | ✓ |   |   |   | ✓ | ✓ |   |  |
| GLOCHIDION FERDINANDI               | CHEESE TREE                      |   | ✓ |   |   |   | ✓ | ✓ |   |  |
| JACKSONIA SCOPARIA                  | DOGWOOD                          |   |   |   |   |   | ✓ | ✓ |   |  |
| JAGERA PSEUDORHUS                   | FOAMBARK                         |   |   |   |   |   | ✓ | ✓ | ✓ |  |
| JAGERA PSEUDORPHUS                  | JAGERA/ FOAMBARK                 |   |   |   |   |   | ✓ | ✓ |   |  |
| LIVISTONA AUSTRALIS                 | CABBAGE PALM                     | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |   |  |
| LOPHOSTEMON CONFERTUS               | BRUSH BOX                        | ✓ | ✓ |   |   | ✓ | ✓ | ✓ |   |  |
| LOPHOSTEMON SUAVEOLENS              | SWAMP MAHOGANY                   | ✓ | ✓ |   | ✓ | ✓ | ✓ | ✓ |   |  |
| MACARANGA TANARIUS                  | MACARANGA                        |   | ✓ |   |   |   | ✓ | ✓ | ✓ |  |
| MELALEUCA QUINQUENERVIA             | BROAD LEAVED PAPERBARK           |   | ✓ | ✓ | ✓ | ✓ |   |   |   |  |
| MELICOPE ELLERYANA                  | PINK EUODIA                      |   |   |   |   |   | ✓ | ✓ | ✓ |  |
| NOTOLAEA LONGIFOLIA                 | LARGE MOCK OLIVE                 |   |   |   |   |   | ✓ | ✓ |   |  |
| OLEA PANICULATA                     | NATIVE OLIVE                     |   | ✓ |   |   | ✓ | ✓ | ✓ |   |  |
| POLYSCIAS ELEGANS                   | CELERYWOOD                       |   |   | ✓ |   |   |   |   |   |  |
| STREBLUS BRUNONIANUS                | WHALEBONE TREE                   |   | ✓ |   |   |   |   |   |   |  |
| SYZYGIVM OLEOSUM                    | BLUE LILLY PILLY                 |   | ✓ | ✓ |   |   |   |   |   |  |

SHRUBS

|                                     |                              |   |   |   |  |  |   |   |   |   |
|-------------------------------------|------------------------------|---|---|---|--|--|---|---|---|---|
| ACMENA SMITHII “ALLYNS MAGIC”       | ALLYNS MAGIC                 |   | ✓ | ✓ |  |  |   |   |   |   |
| BREYNIA OBLONGIFOLIA                | COFFEE BUSH                  |   | ✓ | ✓ |  |  |   | ✓ | ✓ | ✓ |
| CORDYLINE PETORALIS                 | BROAD-LEAVED PALM LILY       |   | ✓ | ✓ |  |  |   |   | ✓ |   |
| CORDYLINE RUBRA                     | RED-FRUITED PALM LILY        |   | ✓ | ✓ |  |  |   |   | ✓ |   |
| MELASTOMA AFFINE                    | NATIVE LASIANDRA             |   | ✓ |   |  |  | ✓ | ✓ | ✓ |   |
| PHYLLANTHUS MINUTIFLORUS            | PHYLLANTHUS                  |   | ✓ |   |  |  |   | ✓ |   |   |
| PITTOSPORUM REVOLUTUM               | HAIRY PITTOSPORUM            |   | ✓ |   |  |  | ✓ | ✓ | ✓ |   |
| PITTOSPORUM UNDULATUM               | SWEET PITTOSPORUM            |   | ✓ |   |  |  | ✓ | ✓ | ✓ |   |
| PULTENAEA SPINOSA                   | PULTENAEA                    |   |   |   |  |  |   | ✓ | ✓ |   |
| SYZYGIVM “HINTERLAND GOLD”          | GOLD LILLY PILLY             |   | ✓ |   |  |  |   | ✓ |   |   |
| SYZYGIVM AUSTRALE “AUSSIE SOUTHERN” | AUSSIE SOUTHERN              |   | ✓ |   |  |  |   | ✓ |   |   |
| WESTRINGEA “WYNYABBIE GEM”          | COASTAL ROSEMARY             |   | ✓ |   |  |  |   |   |   |   |
| WESTRINGEA FRUITOCOSA “ZENA”        | ZENA                         |   | ✓ | ✓ |  |  |   |   |   |   |
| CARISSA OVATA                       | CURRANT BUSH                 |   |   |   |  |  |   | ✓ |   |   |
| CRYPTOCARYA LAEVIGATARS             | GLOSSY LAUREL                |   |   |   |  |  |   |   |   | ✓ |
| MELASTOMA AFFINE                    | NATIVE LASIANDRA             | ✓ | ✓ |   |  |  |   |   |   | ✓ |
| ACMENA HEMILAMPRARS                 | BROAD LEAVED LILLY-<br>PILLY | ✓ | ✓ |   |  |  |   |   |   |   |
| ACMENA SMITHII                      | COMMON LILLY PILLY           | ✓ | ✓ |   |  |  |   |   |   |   |
| PITTOSPORUM MULTIFLORUM             | ORANGE THORN                 |   |   |   |  |  |   | ✓ |   |   |
| PITTOSPORUM REVOLUTUM               | HAIRY PITTOSPORUM            |   |   |   |  |  |   | ✓ |   |   |
| PITTOSPORUM UNDULATUM               | SWEET PITTOSPORUM            |   |   |   |  |  |   | ✓ |   |   |

NOTE: Species to comply with the Bushfire Management Plan, review to occur at Construction Certificate Phase.

PLANTING PALETTE

100906 | 26 JUL 18 | DA14

PROJECT ALTITUDE ASPIRE | TERRANORA | PERMISSIBLE CHANGE | CLIENT NEWLAND DEVELOPERS PTY LTD



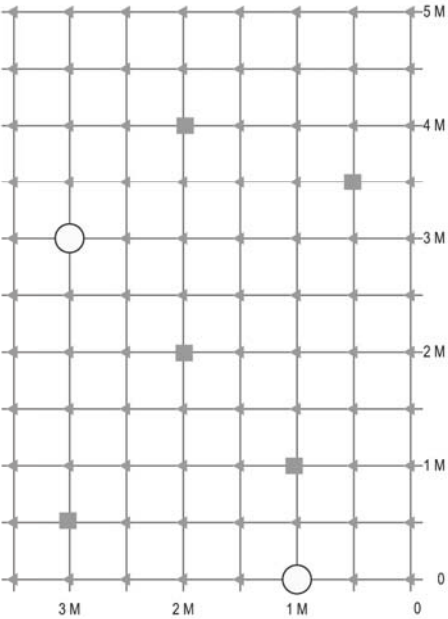
| GROUNDCOVERS, SEDGES AND CLIMBERS |                      |   | STREETScape<br>PLAYGROUND PARK<br>ENTRY<br>BIORETENTION<br>FEATURE POND<br>BUFFER<br>REVEGETATION<br>VEGETATED BANKS FOR<br>BATTERS GREATER THAN 1:4 |   |   |   |   |   |   |   |   |  |
|-----------------------------------|----------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|---|--|
|                                   |                      |   |                                                                                                                                                      |   |   |   |   |   |   |   |   |  |
| PARSONIA STRAMINEA                | MONKEY ROPE          |   |                                                                                                                                                      | ✓ |   |   |   |   | ✓ | ✓ | ✓ |  |
| PANDOREA JASMINOIDES              | BOWER VINE           |   | ✓                                                                                                                                                    |   |   |   |   |   |   |   |   |  |
| HOYA AUSTRALIS                    | NATIVE HOYA          |   | ✓                                                                                                                                                    |   |   |   |   |   |   |   | ✓ |  |
| CISSUS ANTARCTICA                 | WATER VINE           |   |                                                                                                                                                      |   |   | ✓ |   |   |   |   |   |  |
| CISSUS HYPOGLAUCA                 | FIVE-LEAF WATER VINE |   |                                                                                                                                                      |   |   | ✓ |   |   |   |   |   |  |
| CRINUM PEDUNCULATUM               | CRINUM LILY          |   | ✓                                                                                                                                                    |   | ✓ | ✓ |   |   |   |   |   |  |
| ADIANTUM HISPIDULUM               | ROUGH MAIDENHAIR     |   | ✓                                                                                                                                                    |   |   |   |   |   |   |   |   |  |
| PELLAEA FALCATA                   | SICKLE FERN          |   |                                                                                                                                                      |   |   | ✓ | ✓ |   |   |   |   |  |
| ASPLENIUM AUSTRALASICUM           | BIRD'S NEST FERN     |   |                                                                                                                                                      |   |   | ✓ | ✓ |   |   |   |   |  |
| DIPLAZIUM DILATATUM               | LADY FERN            |   |                                                                                                                                                      |   |   | ✓ | ✓ |   |   |   |   |  |
| BLECHNUM CARTILAGINEUM            | GRISTLE FERN         |   |                                                                                                                                                      |   |   | ✓ | ✓ |   |   |   |   |  |
| BLECHNUM INDICUM                  | SWAMP WATER FERN     |   |                                                                                                                                                      |   |   | ✓ | ✓ |   |   |   |   |  |
| DOODIA ASPERA                     | RASP FERN            |   |                                                                                                                                                      |   |   | ✓ | ✓ |   |   |   |   |  |
| CYATHEA LEICHHARDTIANA            | PRICKLY TREE FERN    |   |                                                                                                                                                      | ✓ |   | ✓ | ✓ |   |   |   |   |  |
| LEPIDOSPERMA LATERALE             | VARIABLE SWORD-SEDGE |   |                                                                                                                                                      |   | ✓ |   | ✓ | ✓ | ✓ |   |   |  |
| LOMANDRA LONGIFOLIA               | LONG-LEAVED MATRUSH  |   |                                                                                                                                                      |   | ✓ |   | ✓ | ✓ | ✓ |   |   |  |
| GEITONOPLESIMUM CYMOSUM           | SCRAMBLING LILY      |   |                                                                                                                                                      |   |   |   | ✓ | ✓ | ✓ |   |   |  |
| ALOCASIA BRISBANENSIS             | CUNJEVOI             |   |                                                                                                                                                      | ✓ |   |   |   |   |   |   |   |  |
| DIANELLA CAERULEA                 | BLUE FLAX LILY       | ✓ | ✓                                                                                                                                                    | ✓ | ✓ |   | ✓ | ✓ |   |   |   |  |
| ERAGROSTIS SP.                    | LOVEGRASS            |   |                                                                                                                                                      |   |   |   | ✓ | ✓ | ✓ |   |   |  |
| ALPINIA CAERULEA                  | NATIVE GINGER        |   | ✓                                                                                                                                                    |   |   |   |   |   |   |   |   |  |

NOTE : Dense planting to banks 6/8m2 for stabilisation.  
 NOTE : Species to comply with the Bushfire Management Plan, review to occur at Construction Certificate Phase.

BATTERS TO BE DENSELY PLANTED WITH NATIVE TREE AND UNDERSTOREY PLANTING. REFER TO PLANT SCHEDULE FOR SPECIES AND DENSITY

BATTER EXCEEDING 1:4

TREES  
 GROUNDCOVER/GRASSES  
 SHRUBS



VEGETATED BANKS FOR BATTER GREATER THAN 1:4

### PLANTING PALETTE