



Note that the photomontage shows all low level shrubs and ground covers and the street trees as established within approximately 1 year from planting.



Fig. 5.14: Viewpoint 3 - The northern village centre looking south - view as impacted by the proposal

Note that the photomontage shows all landscape as established at approximately 8 years from planting.



Fig. 5.15: Viewpoint 4 - The existing fishing platform to the east located in Burrill Lake Lions Park - existing view



Fig. 5.16: Viewpoint 4 - The existing fishing platform to the east located in Burrill Lake Lions Park - view as impacted by the proposal

Note that the photomontage shows all landscape as established at approximately 8 years from planting.



Fig. 5.17: Viewpoint 5 - The cul-de-sac at the end of Kendall Crescent - existing view



Fig. 5.18: Viewpoint 5 - The cul-de-sac at the end of Kendall Crescent - view as impacted by the proposal

Note that the photomontage shows all landscape as established at approximately 8 years from planting.

- KEY

 - Proposed highway
 - Proposed bridge
 - Local road
 - Roundabouts
 - Vehicle access
 - Pedestrian access
 - Parking
 - Views
 - Proposed public spaces
- 1. Provide a well designed bridge structure to mitigate high visual impacts
 - 2. Landscaped embankments to visually soften elevated embankments
 - 3. Directional street tree planting at roundabouts to indicate approach to village centre shopping areas
 - 4. Enhance pedestrian connectivity and amenity north-south and east-west
 - 5. Maintain views to the village shopping areas from the highway
 - 6. Maintain access and parking to local retail uses
 - 7. Provide new public areas with a high level of amenity
 - 8. Reinstall foreshore areas impacted by the proposal
 - 9. Provide landscape screening to residents in close proximity of the proposal
 - 10. Provide noise attenuation as required
 - 11. The proposed landscape is to complement the existing adjacent vegetation zones
 - 12. Reinstall impacted areas of Burrill Lake Lions Park and provide landscape screening as required

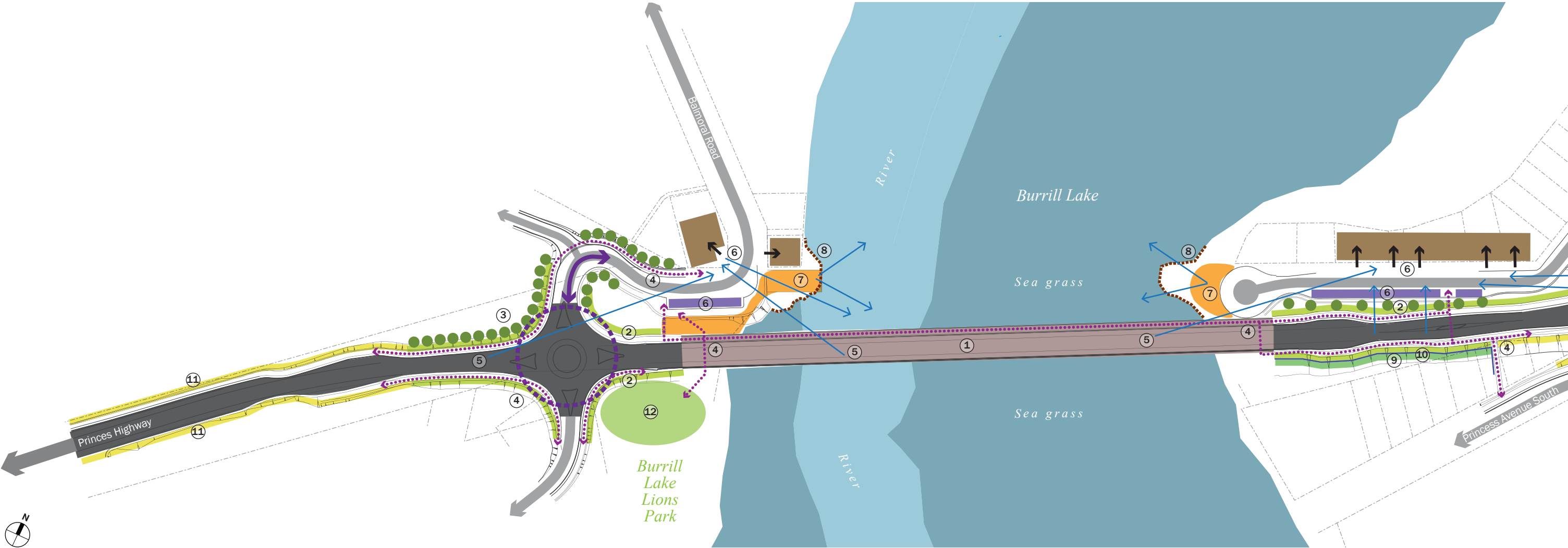


Fig. 6.1: Urban design and landscape strategy plan

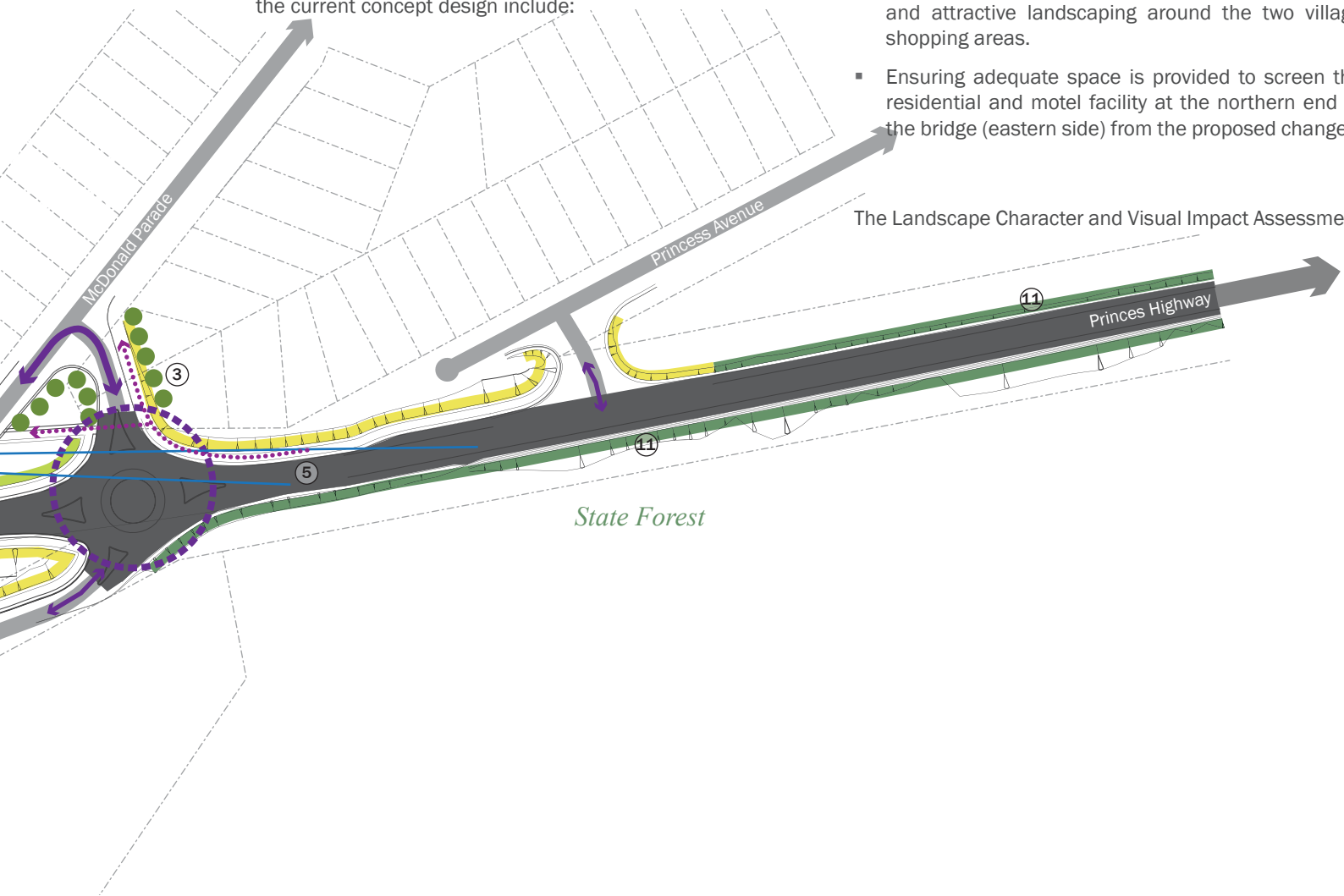
6. LANDSCAPE CHARACTER AND VISUAL IMPACT MITIGATION STRATEGY

The Landscape Character and Visual Impact Assessment highlight the substantial impacts of the proposal on the surrounding environment. Throughout the development of the concept design for the project, the design team identified design measures that could mitigate landscape character and visual impacts as part of the design of the bridge and highway works. As a result a number of design changes were made that focussed on reducing impacts that could be addressed by the overall bridge and highway design, as well as changes affecting the local roads, surrounding residents, parks and the two segments of the village centre.

Some of the design changes and initiatives that especially relate to minimising impacts to the existing landscape character and visual concerns that were incorporated in the current concept design include:

- Minimising the height of the new bridge and its approach embankments as far as possible to reduce the contrast with the surrounding flat landscape. This permitted the design of a structure that does not overwhelm the small settlement that is Burrill Lake. This key measure helped reduce the visual catchment that the proposal would be seen from and also greatly improved the level of accessibility and connectivity with the surround areas and land uses.
- Responding to the functional and aesthetic character of Burrill Lake Lions Park, with allowance made to replace lost trees and facilities, and provide a safe at-grade pathway connection to the nearby shopping area.
- Creating opportunities for new public open spaces and attractive landscaping around the two village shopping areas.
- Ensuring adequate space is provided to screen the residential and motel facility at the northern end of the bridge (eastern side) from the proposed changes.

The Landscape Character and Visual Impact Assessment



undertaken above is based on the current concept design incorporating all of the above changes, yet it still highlights the degree of visual presence of the proposal in the Burrill Lake environment. The detailed design would need to ensure that a high degree of attention is paid to the detailing of the proposal, the convenience of its use, the materials and finishes of the project.

In particular, the following detailed mitigation measures are recommended in regard to addressing visual impacts:

- The Visual Impact Assessment highlights the degree of visibility and visual prominence of the bridge structure. It is a particularly long structure over an open environment (a lake) that is a key visual feature in its context. This in turn renders the bridge a significant visual element in local views.

Therefore the design and detailing of the visual elements of the bridge, in particular its superstructure elements, is recommended. Particular attention is to be paid to the design of the piers and headstocks, barriers and handrail, shared path connections and depth of structure. Due to the proximity of the bridge structure to the two village shopping centres, the current design of the headstocks, piers and handrail would need to be refined in the detailed design phase.

- The impacts of the visibility of the structure and approaches would be addressed by the provision of landscape screening where appropriate. However it is important that this is done in consideration with other design principles including maintaining views from the highway to the shopping centres, CPTED and safety considerations ensuring opportunities for passive surveillance, maintaining key views to the Lake and ensuring that the open coastal character of the context is maintained.
- The design development of the structural elements in the public realm within the scope of the project needs to be undertaken. These elements include the shared/foot path, stairs and handrails, screening fence and its associated landscape zone, the paving details at the roundabouts, the detailing and finishes of the new public spaces.
- The provision of landscape and street trees to improve the overall amenity within the two village shopping areas affected by the proposal is recommended. This would create an attractive village-like setting and scale reducing the visual impact of the proposal. However, in the placement of the planting it is important to consider strategic view corridors from

the highway to the shopping areas so that passing motorists can see these shopping centres and are enticed to stop.

- New signage to signify the location of the village centre and connecting local roads when travelling northbound and southbound is to be included as part of this proposal. Directional signage for pedestrians may also be required.
- Create two public spaces at either end of the old crossing providing new opportunities to enjoy the water front close to the shopping areas. This would also include the restoration of the lake edge at the northern end of the existing causeway.
- Provide improved pedestrian facilities and a greater level of connectivity in general in the areas affected by the proposal.
- Stabilisation of new embankments and cuttings with native plants, with these areas blended into bushland where adjacent to it, is required to ensure the integration of the proposal with its context.
- At locations where greater visual impacts have been identified, larger sized trees may be planted to help reduce the visual impact since the proposed tree planting would take a number of years (approx. 8-10 yrs) to establish at full height..
- Where possible batters should be eased out, avoiding 2:1 or greater batter slopes.
- New landscape works in Burrill Lake Lions Park, including potentially a landscaped dry detention basin, planting around the proposed new amenities building, and other planting along the new pathway that leads under the bridge to the shopping area is to be undertaken.

Together the mitigation measures incorporated into the engineering design, and those that form the Urban Design Strategy Plan, would assist in mitigating many of the identified impacts. The overriding principles of a well-designed bridge and highway structure that sits as low as possible in the landscape, highlighting view connections to the lake and village centres and the provision of a high level of pedestrian connectivity and amenity would help to achieve a result that is sympathetic to the existing landscape character, surrounding viewpoints and the visual experience of motorists.

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| Indicative plants | | | Suggested locations (to be checked for clear zone requirements at detailed design stage) | | | | | | | |
|---|-----------------------|--------------------|---|------------|----------------------|-------------------------------|-----------------------------|---------------|-------------------|------------------------|
| | | | Street trees | Park areas | Tall screen planting | Feature shrubs & groundcovers | Embankment feature planting | Near bushland | Native grass area | Narrow screen planting |
| Botanical name | Common name | Approx Hgt X Width | | | | | | | | |
| <i>Acacia longifolia</i> var. <i>sophorae</i> | Coastal Wattle | 6m x 5m | | | | | | | | |
| <i>Acmena smithii</i> | Lilly Pilly | 10m x 6m | | | | | | | | |
| <i>Banksia integrifolia</i> | Coastal Banksia | 8m x 5m | | | | | | | | |
| <i>Banksia serrata</i> | Old Man Banksia | 6m x 3m | | | | | | | | |
| <i>Callistemon 'Little John'</i> | Endeavour Bottlebrush | 1.5 x 1.2m | | | | | | | | |
| <i>Carpobrotus glaucescens</i> | Pigface | 0.3m x 0.5m | | | | | | | | |
| <i>Casuarina glauca</i> | Swamp Oak | 8m x 3m | | | | | | | | |
| <i>Correa alba</i> | White Correa | 1.5 x 1m | | | | | | | | |
| <i>Cupaniopsis anacardioides</i> | Tuckeroo | 8m x 6m | | | | | | | | |
| <i>Eucalyptus botryoides</i> | Bangalay | 25m x 8m | | | | | | | | |
| <i>Eucalyptus pilularis</i> | Blackbutt | 25m x 8m | | | | | | | | |
| <i>Gazania spp.</i> | Gazania | 0.3 x 0.3m | | | | | | | | |
| <i>Hibbertia scandens</i> | Twining Guinea Flower | 0.5m x 1m | | | | | | | | |
| <i>Lomandra longifolia</i> | Matrush | 1.5 x 1m | | | | | | | | |
| <i>Lomandra tanika</i> | Lomandra | 1m x 1m | | | | | | | | |
| <i>Leptospermum laevigatum</i> | Coast Tea tree | 3m x 1.5m | | | | | | | | |
| <i>Poa labillardieri 'Eskdale'</i> | Tussock Grass | 80cm x 40cm | | | | | | | | |
| <i>Tristaniopsis laurina</i> | Kanooka | 6m x 3m | | | | | | | | |
| <i>Westringia fruticosa</i> | Coastal Rosemary | 1.5m x 1m | | | | | | | | |



Cupaniopsis anacardioides



Banksia integrifolia



Westringia fruticosa



Lomandra