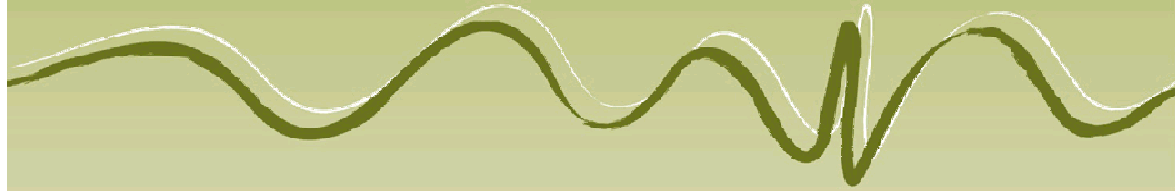


Footpath Options Report

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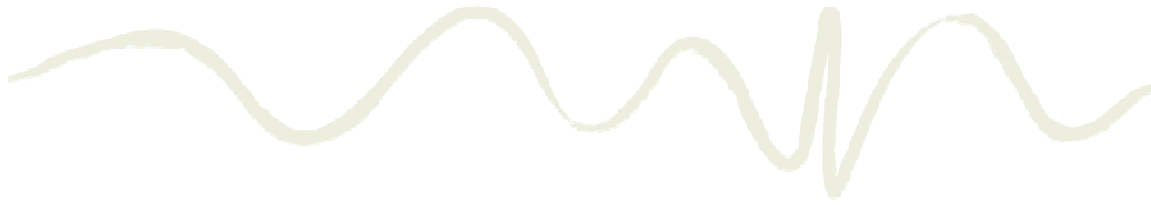
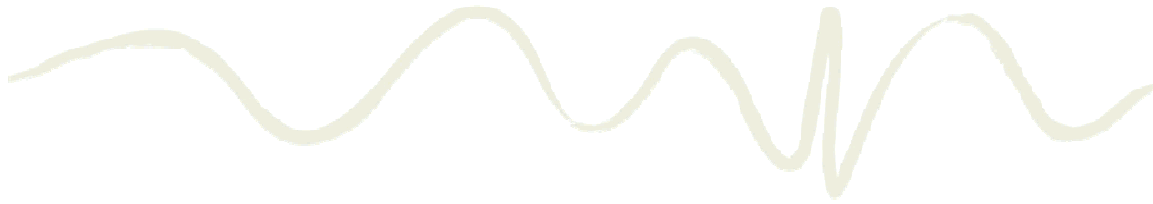


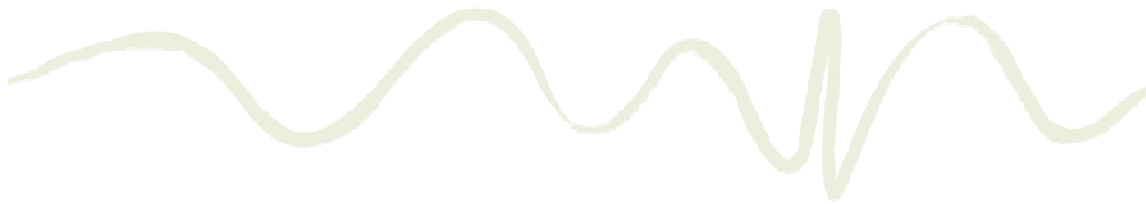
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1. Introduction

This report has been prepared with respect to a planning proposal to rezone Lot 12 DP 581159 and part of Lot 21 DP 1007134 to permit residential development. In response to submissions received during the public exhibition period this report seeks to address comments raised in regards to pedestrian movement and safety in the vicinity of the proposal. The report provides a summary of the issues raised in submissions, review of existing pedestrian links, and an assessment of route options to improve connectivity and safety in the vicinity of the proposal.



2. Background

During the public exhibition period of the planning proposal a number of submissions were received from local residents. The main issues raised in submissions are summarised below:

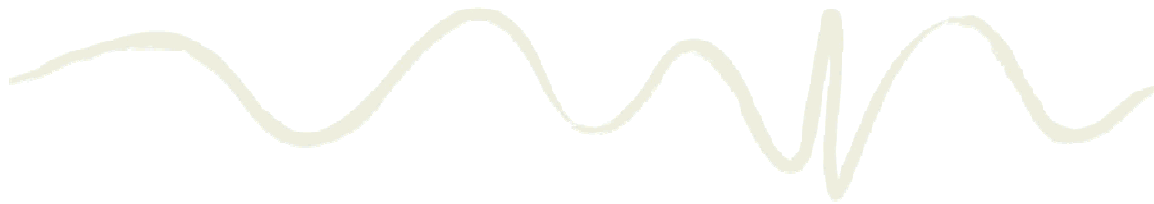
- Sunrise Crescent has no available footpath on either side of the road and gardens in the verge, and on-street parking forces pedestrians on to the road;
- There is no safe pedestrian access from the Coast Road underpass to the village, Williams Reserve, beach or primary school;
- The underpass is heavily used by school children, parents and residents of Lennox Head;
- There is a blind bend from Greenwood Place in to Sunrise Crescent, with high risk to pedestrians walking on the road;
- Afternoon sun affects visibility for drivers travelling west along Sunrise Crescent which increases risk to pedestrian safety;
- The alternative public walkway from Sunrise Crescent down to Lakerield Avenue/Hern Street is impassable;
- Banksia Avenue is the drop-off/pick-up location for the primary school and experiences significant pedestrian and vehicular traffic.

Residents see a need to upgrade existing infrastructure to improve safety for pedestrians and cyclists from the underpass to the various destinations within the local area.

Sunrise Crescent, Greenwood Place and Blue Horizon Drive currently service a total of 54 lots. There are no external road links. Sunrise Crescent is a Local Street as defined in the Northern Rivers Local Government - Development Design Specification D1 Geometric Road Design (Institute of Municipal Engineers and Statewide Roads, 2013). The addition of 18 lots will not change the classification of the road which will remain primarily a low traffic and low speed environment.

For the purposes of this assessment a desirable minimum footpath width of 1.2m has been adopted based on the following:

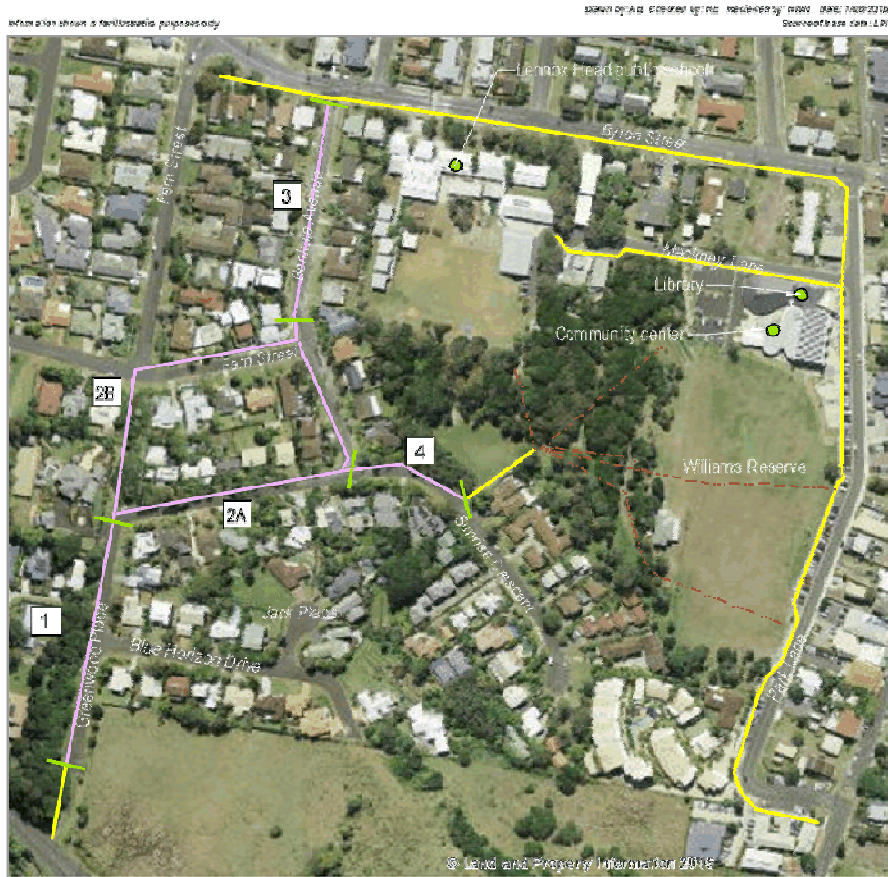
- Pedestrian volumes are not considered high enough to warrant consideration of wider paths;
- The topography of the investigation area limits the width of paths and sufficient space is not available to meet the Austroads design requirements of shared paths;
- Cyclists can be accommodated on the existing road network;
- Children under 12 years of age can ride on a footpath, and an adult rider who is supervising a cyclist under 12 may also ride with the young cyclist on the footpath (NSW Road Rules 2014).



3. Existing infrastructure

An overall map of existing paths is provided below in **Figure 1.1**. Existing footpaths are provided along Byron Street, Park Lane, and Mackney Lane. There is a pedestrian link from Sunrise Crescent to Williams Reserve, and a series of informal tracks providing connectivity to the local shops and community facilities.

Connectivity from the pedestrian underpass at the end of Greenwood place, to the existing network of paths is the primary concern raised in submissions. The potential pedestrian links are shown below in **Figure 1.1**. An assessment of each link is provided in **Section 4**.



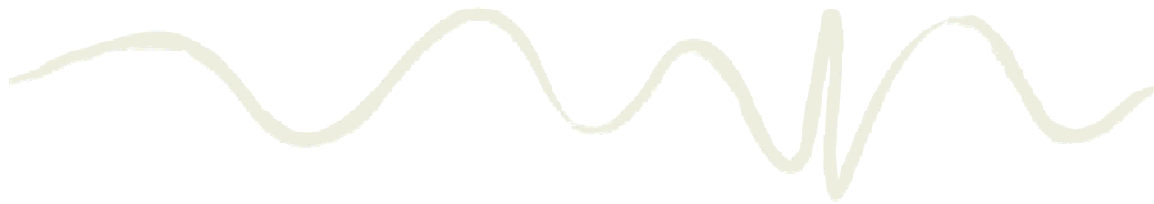
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Map of Existing Footpaths
 2515-1005

Existing paths in proximity of the proposed development, and potential pedestrian links

Figure 1.1



4. Options Assessment

4.1 Section 1 – Existing underpass to corner of Greenwood Place and Sunrise Crescent

The verge on the east side of the road is not ideal for construction of a footpath due to the difference in level from the back of kerb to the property boundaries, and the grade of existing driveways. The western side of the road has a relatively level verge and would be suitable for construction of a 1.2m wide footpath to join to the existing pedestrian underpass. Some vegetation removal would be required, along with some minor adjustment of the road embankment over a short section at the frontage of number 14 Greenwood Place.

4.2 Section 2A – Corner of Greenwood Place to Banksia Avenue/Fern Street via Sunrise Crescent

The verge on the south side of Sunrise Crescent is not ideal for construction of a footpath due to the difference in level from the back of kerb to the property boundaries, and the grade of existing driveways.

The northern side of Sunrise Crescent contains a significant amount of vegetation and minor structures within the verge. The most significant encroachment on the road verge is immediately east of the crest of the road, for a length of approximately 50 metres. The verge provides adequate area and cross fall to locate a footpath subject to removal of vegetation and minor adjustments to three driveways.

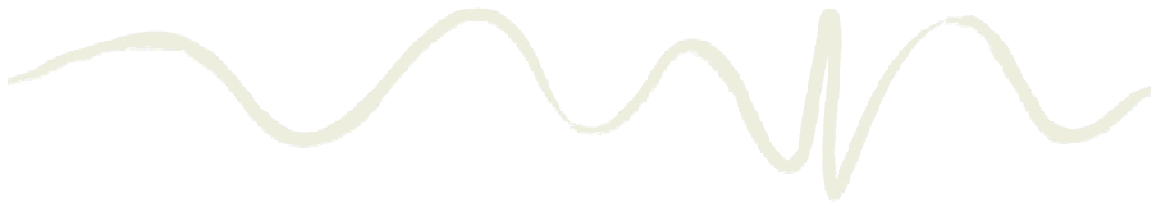
From the intersection of Banksia Avenue and Sunrise Crescent to the intersection of Banksia Avenue and Fern Street either side of the road has the potential to accommodate a footpath.

4.3 Section 2B – Corner of Greenwood Place to Banksia Avenue/Fern Street via Fern Street

A portion of public land links the corner of Greenwood Place and Sunrise Crescent with Fern Street. An existing brick paver path extends along the western side of the reserve, terminating at a private property. North of the terminated path the slope of the land increases significantly. Slopes have been stabilised by a series of dry stack rock walls. In its current state the reserve is not suitable as a public thoroughfare. Due to the grade any path would need to incorporate steps, or switch backs to negotiate the steep slopes, along with construction of a substantial sub-structure to ensure geotechnical stability is maintained.

Fern Street, from the end of the reserve to the intersection with Banksia Avenue would be suitable for construction of a footpath on either side of the road.

4.4 Section 3 – Corner of Banksia Avenue/Fern Street to Byron Street

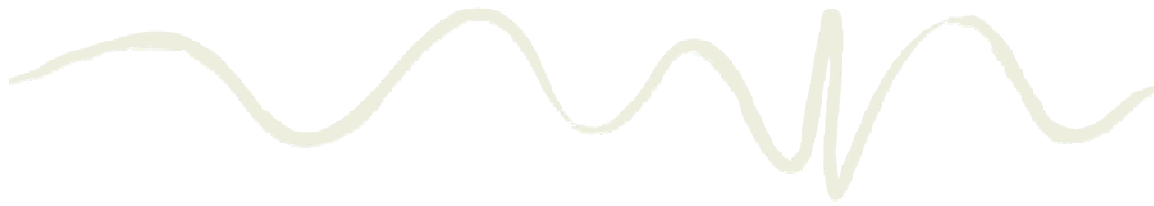


From the intersection of Banksia Avenue and Fern Street to the intersection of Banksia Avenue and Byron Street either side of the road has the potential to accommodate a footpath.

4.5 Section 4 – Corner of Banksia Avenue/Sunrise Crescent to existing walkway

The verge on the south side of Sunrise Crescent is not ideal for construction of a footpath due to the difference in level from the back of kerb to the property boundaries, and the grade of existing driveways.

On the northern side of Sunrise Crescent the verge provides adequate area and cross fall to locate a footpath subject to minor removal of vegetation.

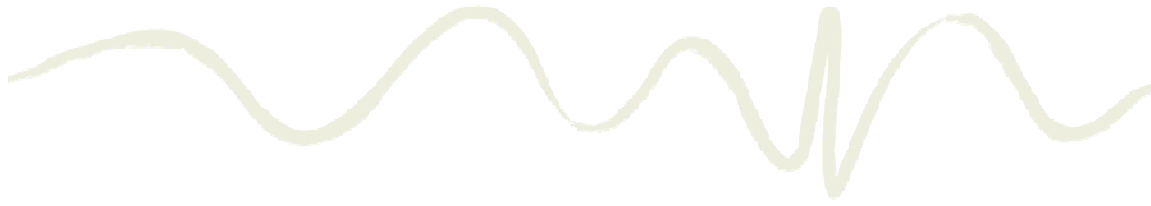


5. Conclusions and recommendations

There are two feasible options for providing pedestrian linkages from the Coast Road underpass at the southern end of Greenwood Place, to connect with the wider network of paths within Lennox Head. The first section of the route could be accommodated on the western verge of Greenwood Place. Two alternative options are available to connect Greenwood Place to Banksia Avenue, either via Fern Street, or Sunrise Crescent, however each option requires additional works to accommodate a footpath. Banksia Avenue and the eastern section of Sunrise Crescent can accommodate footpaths to link to existing path networks.

Of the two alternative route options Sunrise Crescent would provide the most benefit to pedestrians as it would also provide for connectivity with the existing walkway linking Sunrise Crescent to a series of informal tracks through Williams Reserve. The route would require consultation with adjoining landowners due to the impact of vegetation removal, which currently provides screening to homes. The alternative route through the reserve between Sunrise Crescent and Fern Street would require a significant structure to overcome site constraints.

With reference to the issues raised in submissions it is noted that the problems are existing, and not a direct impact of the proposed development. Provision of a link from the corner of Greenwood Place to Banksia Avenue would be the highest priority and have the most benefit to pedestrian safety. Improved safety could also be achieved through parking restrictions adjacent the corner of Sunrise Crescent and Greenwood Place.



References

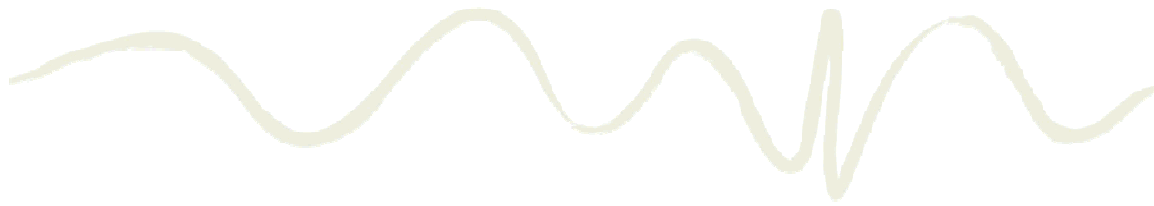
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