



Blind Creek
Solar Farm

Tarago Road Intersection Changes to the EIS

VERSION 2

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Introduction

The Blind Creek EIS included within its development footprint, a plan to upgrade an existing intersection on Tarago Road to include a basic left (BAL) turn treatment to augment the existing basic right (BAR) turn treatment. It was discovered in the submissions process that the existing BAR design was very slightly non-compliant with Austroads guidelines and that the plans did not specifically note the retention of drainage features (notwithstanding this was planned). This paper shows that the small changes flowing from bringing the existing BAR into compliance are entirely within the historical disturbance footprint of the Tarago Road.

History of the Intersection

According to our analysis of historical arial imagery, the intersection was built sometime between 1967 and 1976, coinciding the realignment and re-construction of the Tarago Rd. Previously, the access to the property was in a slightly different location. Please refer to Figure 1 and Figure 2 to see both the alteration of the entrance and the realignment of the Tarago Road. The most notable change was a large cutting through the hill adjacent to the entrance and the fill of a low lying area allowing the Tarago Road to be straightened.

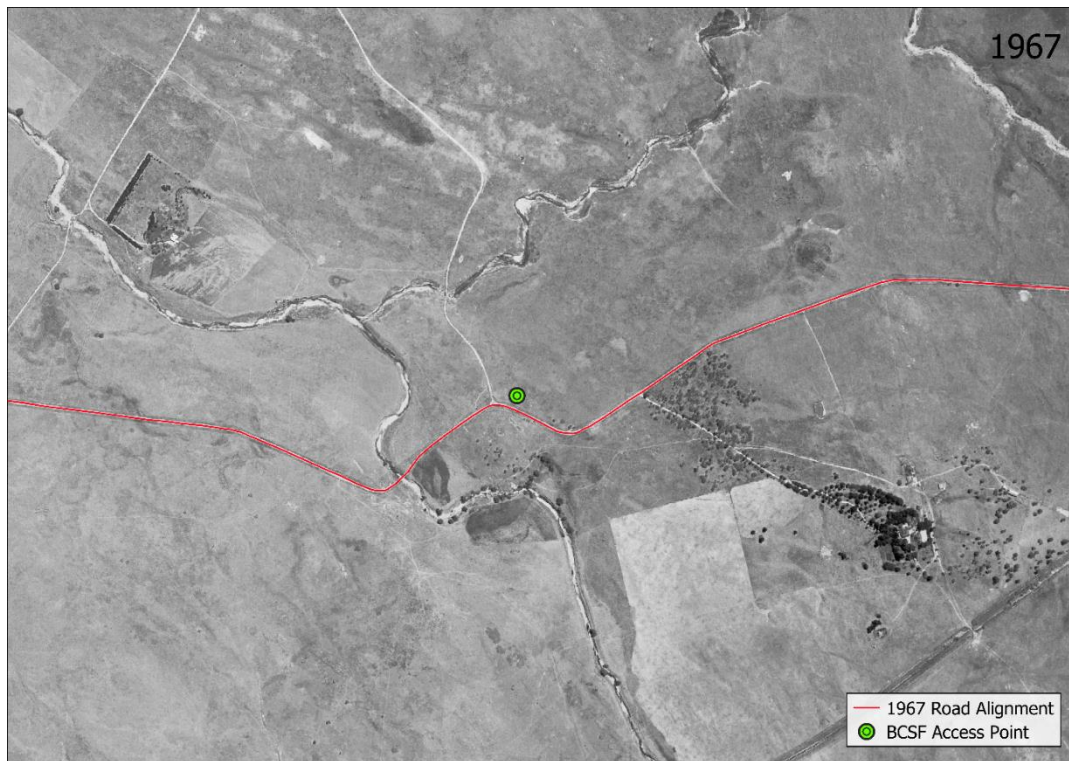


Figure 1 – Tarago Road alignment in 1967, digitised from historical arial imagery taken March 4th 1967.



Figure 2 - Tarago Road alignment in 1976, digitised from historical arial imagery taken May 5th 1976.

The realignment of the Tarago Rd and the construction of the intersection would have required several major earthworks activities, including;

- The ‘cutting’ of the western road section from the existing north-facing slope of the knoll.
- The building of the eastern road section using a ‘fill’ over the low-lying marsh area it crosses.
- Cutting of drainage gutters on both sides of the road.
- Further cutting of the intersection area to install a culvert



FIGURE 3 LOOKING SOUTH-WEST TO THE CUTTING



FIGURE 4 CULVERT ACROSS THE INTERSECTION (NORTH HEADWALL AND SWALE SHOWN)



FIGURE 5 LOOKING NORTH-EAST, WITH THE EMBANKMENT ABOVE THE LOW-LYING NATURAL GROUND CLEARLY DISCERNIBLE.

Changes Required To Achieve Austroads Compliance

The updated intersection layout and the original layout proposed in the EIS of March 2022 are compared in Figure 12. The differences include; one further area of seal widening on the south side of Tarago Rd which was mainly shown as gravel on the original; and three clarified areas of earthworks and rehabilitation (which were not shown on the original but were planned). We note that all additional works are within the historically disturbed area identified in our topographic analysis described below.

LIDAR Data

The impacts of the pre-1976 Tarago Road upgrade are still observable by inspection of the site and via analysis of the area's topography. To prove this, Blind Creek used very-high-resolution LIDAR data collected by Measure Australia for the project.

Figure 6 shows the current alignment of the Tarago Rd and its signature through the elevation contours, particularly noticeable on the road section to the west of the intersection. *Figure 7* illustrates our method of determining the historically disturbed footprint, specifying the positions of the elevation profiles shown in Figures 5 – 8.

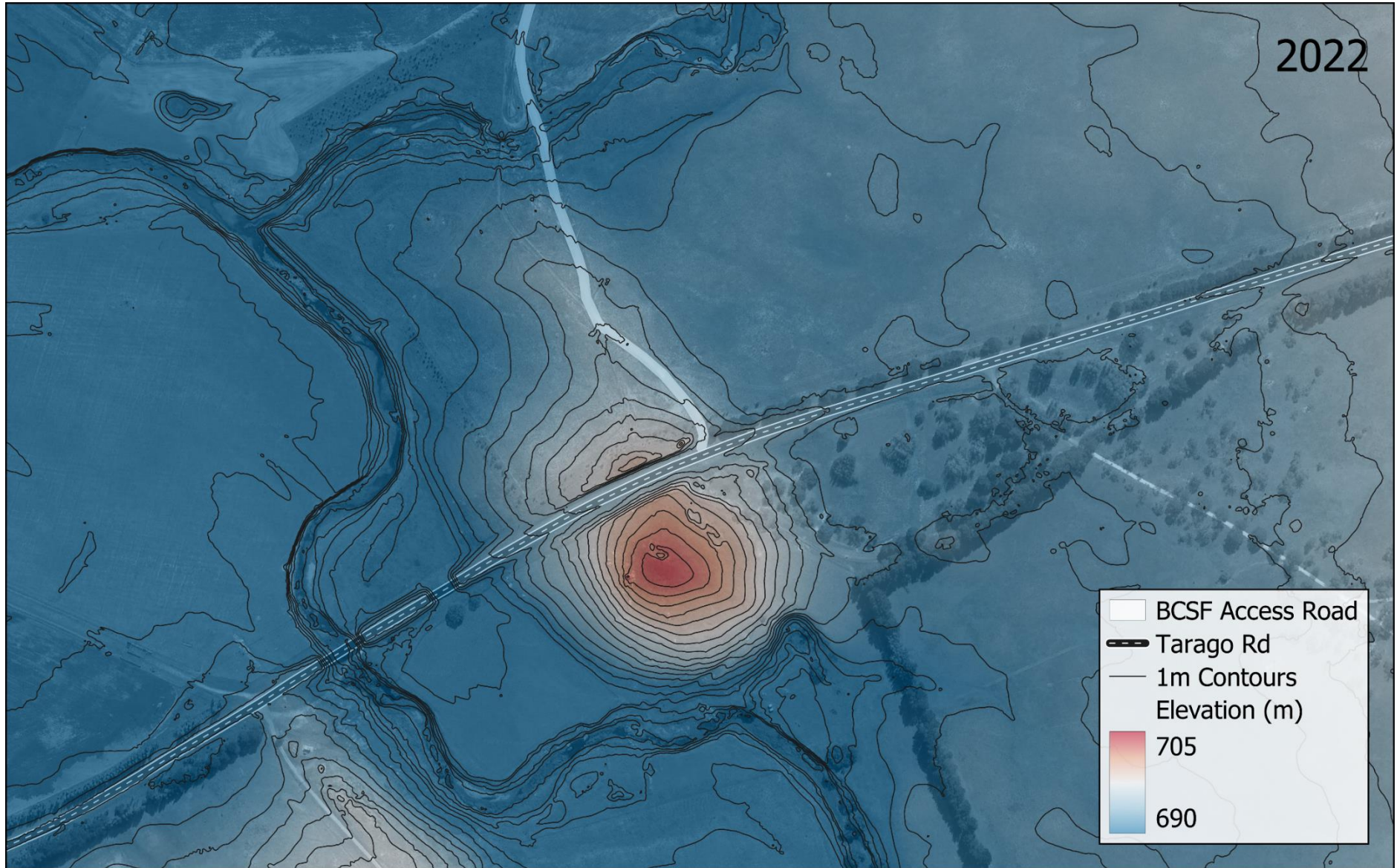


Figure 6 - Current Tarago Road alignment and surrounding topography.

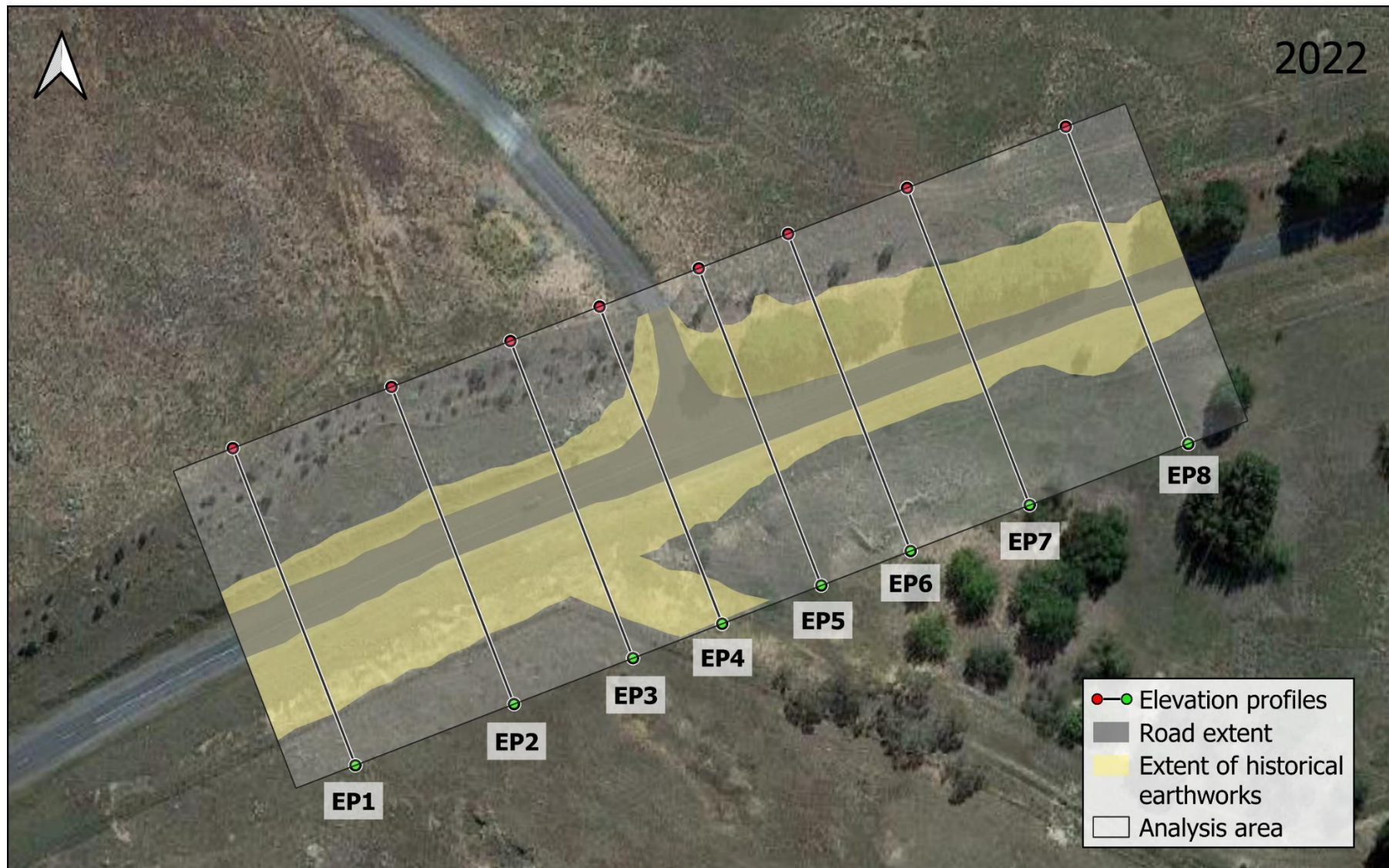


Figure 7 – Position of the analysis area and elevation profiles considered in this response. The related elevations profiles are shown on the following pages. The interpolated disturbed area footprint is shown.

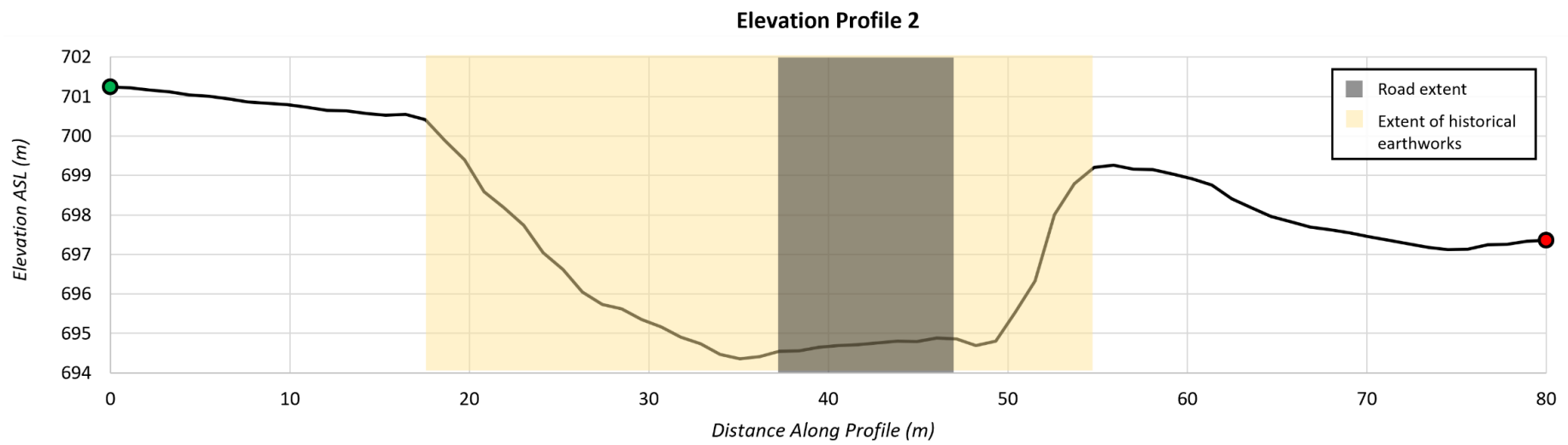
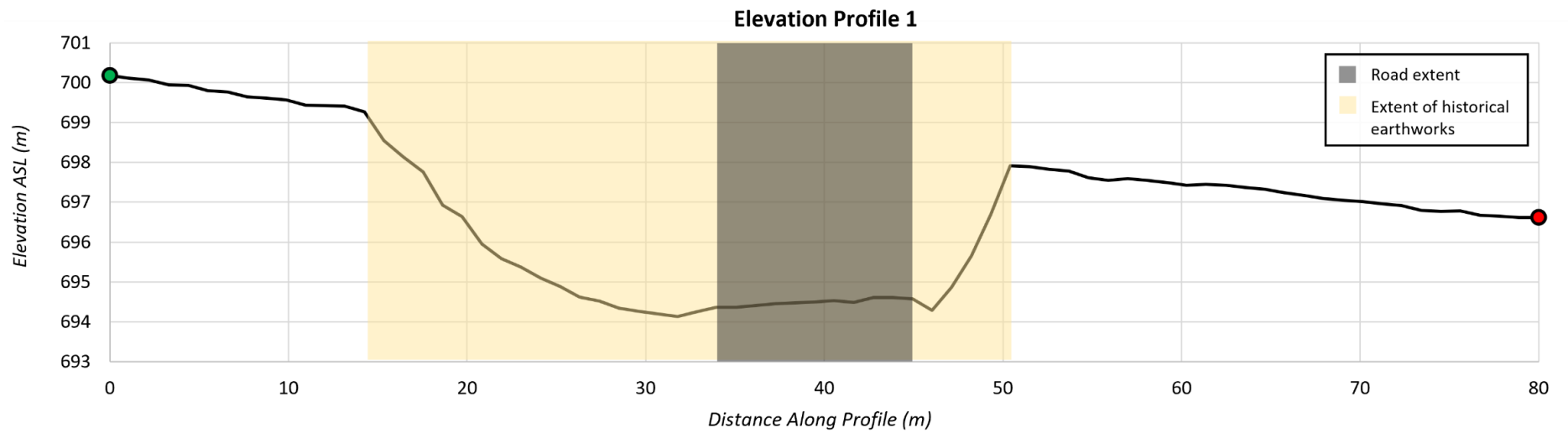


Figure 8 – Elevation profiles for cross-sections marked in Figure 7

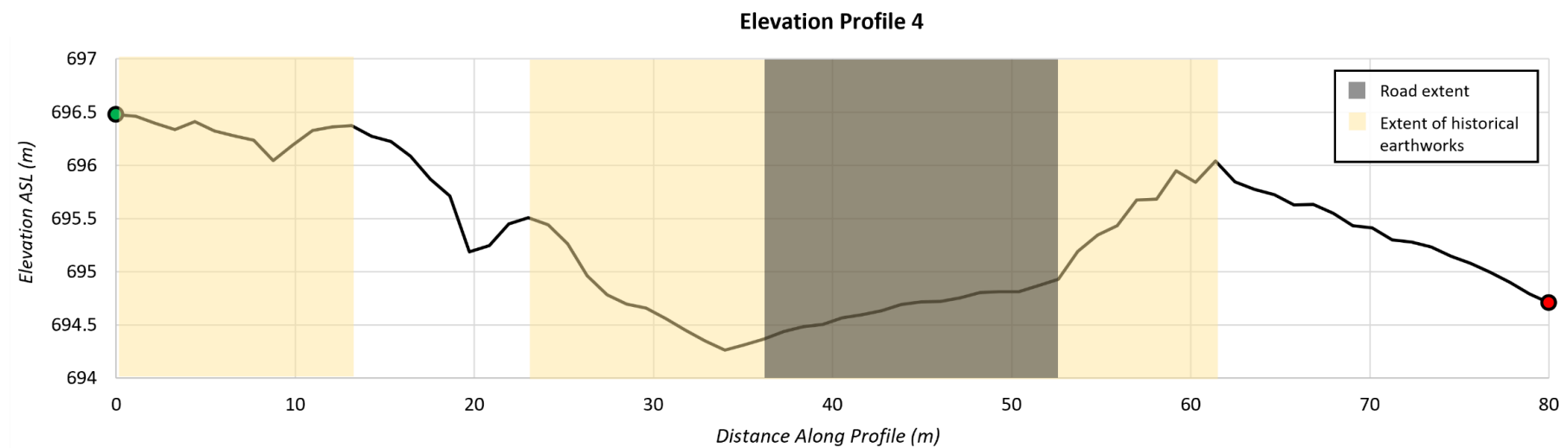
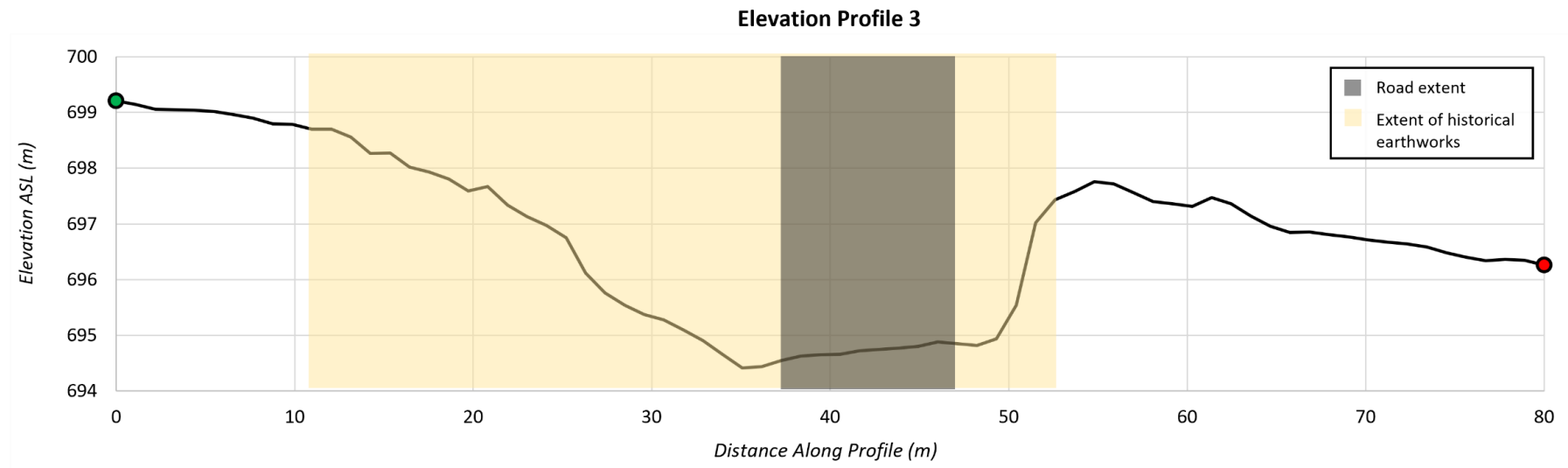


Figure 9 - Elevation profiles for cross-sections marked in Figure 7

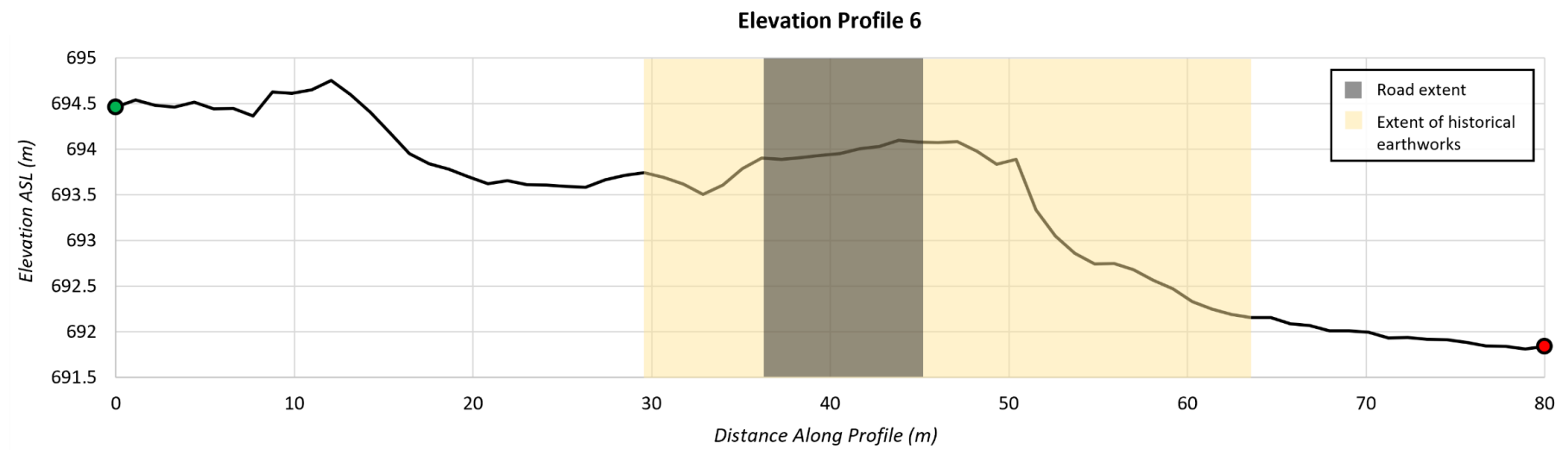
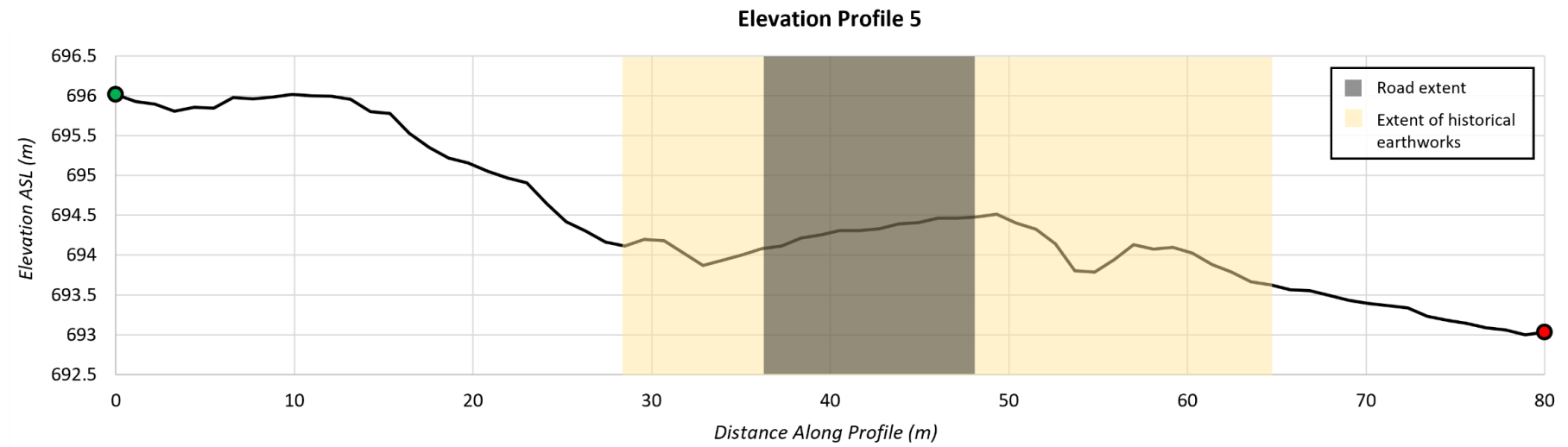


Figure 10 - Elevation profiles for cross-sections marked in Figure 7

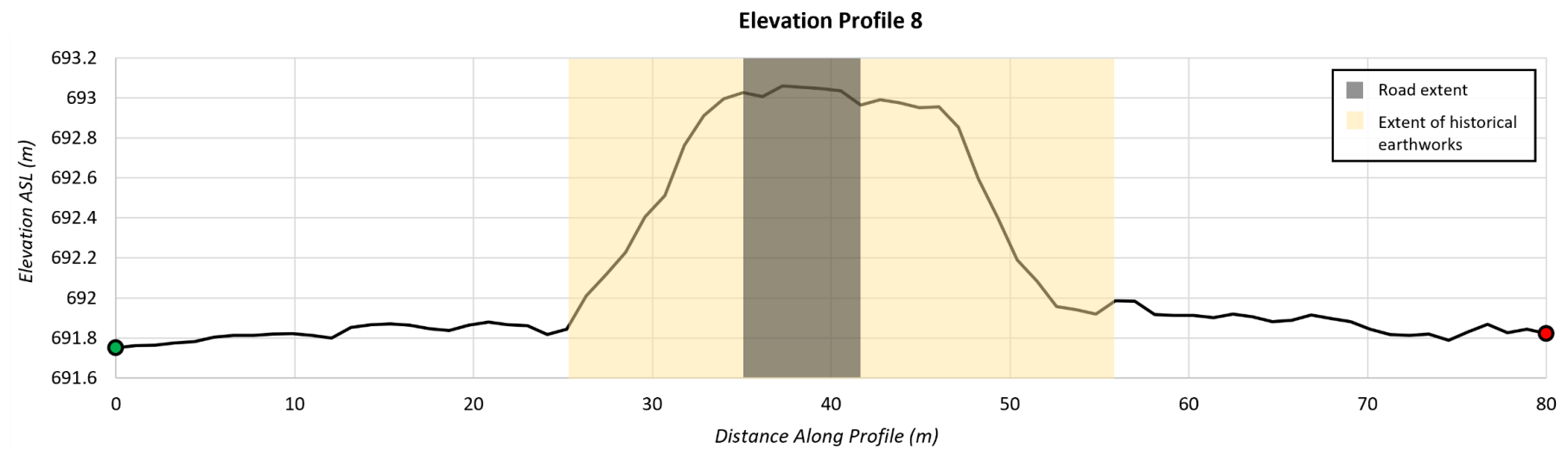
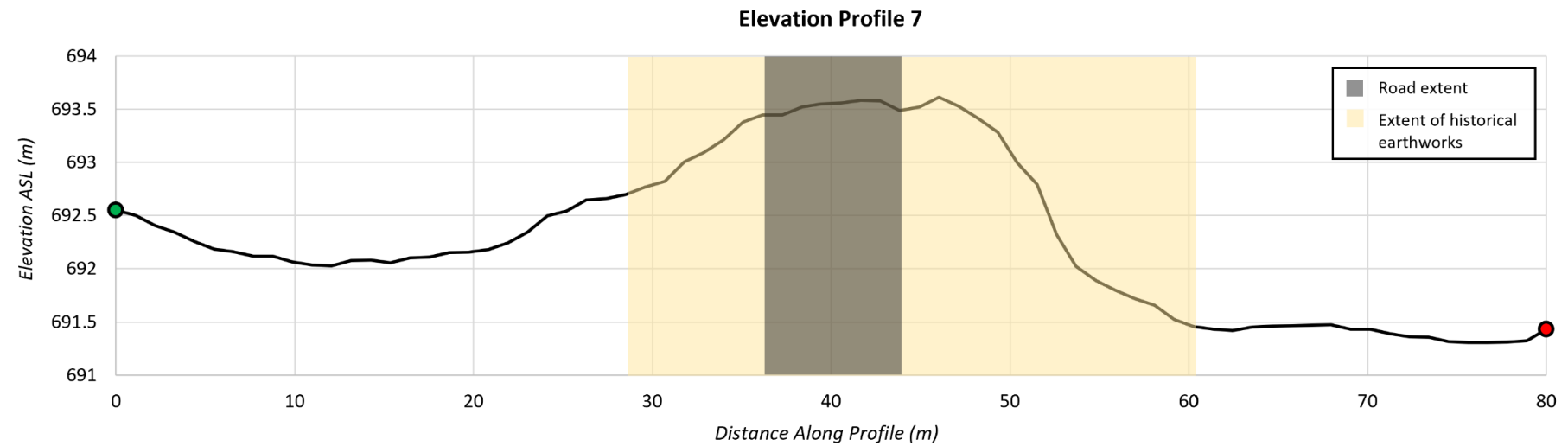


Figure 11 - Elevation profiles for cross-sections marked in Figure 7

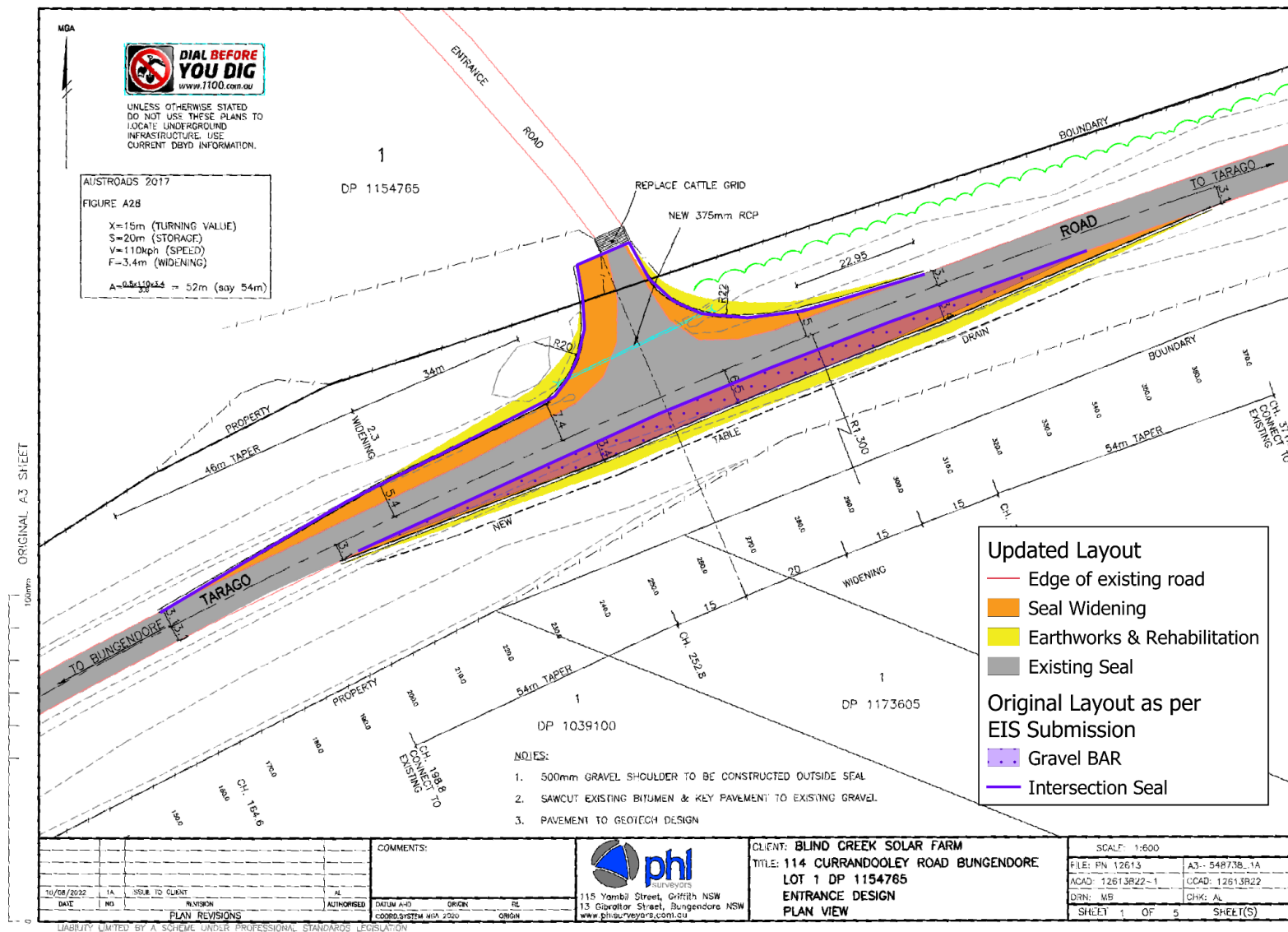


FIGURE 12 COMPARISON OF THE EIS SUBMISSION DESIGN AND THE AMENDED DESIGN.

Conclusion

The Blind Creek Solar Farm's entrance on Tarago Road requires a very minor change to bring it into compliance with the Austroads guidelines. This report uses high resolution LIDAR data to show that all works proposed are well within the historically disturbed footprint. Constructed between 1967 and 1976, the intersection sits between a large cutting and an area of fill over a poorly drained depression. The very minor changes are considered most unlikely to contain archaeology or biodiversity values because they are located on a recently-constructed road embankment.

The site was not surveyed as part of the Biodiversity Development Assessment Report (BDAR) or the Aboriginal Cultural Heritage Assessment Report (ACHAR). However, based on NGH site visits (not survey), background searches and the results of this Intersection Overview, the risk associated with biodiversity and archaeological heritage is considered to be low.

Moving forward, BCSF propose the following:

Biodiversity:

Based on site visits and recent photography, it appears the proposed areas for intersection upgrades are predominately exotic. As such, no additional biodiversity works are proposed.

Heritage:

Given that the proposed intersection works are minor and within previously disturbed areas, the BCSF proposed to undertake an Aboriginal Heritage desktop study undertaken by NGH. This study would be an addendum to the ACHAR, and would be completed in consultation with the relevant Registered Aboriginal Parties (RAPs).

Initial contact has been made with the RAPs, with letters sent to all RAPs that registered their interest with the BCSF on 1 September 2022. RAPs will be provided a 28 day right of response, allowing time for the RAPs to comment. Comments from the RAPs would be provided to the Department during the advertisement period of the Response to Submissions (RTS).