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Cycling for the Environment, for Health, for Pleasure

Via email to: DIT.HahndorfProject@sa.gov.au

Dear Sir/Madam,

Hahndorf Township Improvements and Access Upgrade

Thank you for the opportunity to comment on the latest proposals.

Bike Adelaide (formerly the Bicycle Institute of SA) has been advocating for utility cycling since 1974. We represent the interests of people who cycle to work, school, shops and for other daily activities. Our aim is to not only represent existing cyclists but to assist all levels of government in their aims of converting "proto-cyclists" – the significant proportion of the population who say that they would cycle if conditions were safe enough – into active cyclists, and protecting the safety of the cyclists who do use our roads and other facilities.

We have members who live in Hahndorf but work in Totness; visit Mt Barker to access businesses not available in Hahndorf (such as Bunnings); and are local parents teaching their children how to travel independently and safely outside their immediate locale – in addition to Adelaide-based members who cycle to Hahndorf to visit family and friends. The distances involved in these types of utility travel are relatively long in conditions that might seem challenging compared to those encountered by Plains cyclists, however our observation is that such longer-distance utility trips are becoming more popular and feasible with the availability and take-up of power-assist bikes (commonly called e-bikes).

Given these advocacy interests, Bike Adelaide is extremely disappointed that cyclists have been virtually ignored in the design proposals related to access to Hahndorf – especially given the growth of nearby Mt Barker and the popularity of Hahndorf as a destination for Hills cyclists. In terms of the four components of the project (Verdun interchange, Pioneer Women's Trail extension, Mt Barker interchange and Hahndorf Main Street), the sole component related to cycling is a shared path on one side of one bridge at Mt Barker.

Touring, recreational and sport cyclists have been invited to cycle in the Hills for decades through South Australia's investment in the Tour Down Under – which has a focus on Hahndorf. Even ignoring Bike Adelaide's constituency, we suggest that it is embarrassing for this project to show a complete lack of consideration or care for the very cyclists our state has spent so much time, money and effort trying to encourage.

Happily, the project is still at a stage where the inadequacies for cyclists (and also some we have noticed for other active travel modes) can be addressed. Our detailed comments are provided in the following pages, under the four areas the overall project encompasses. We trust these will assist you in identifying and achieving more positive outcomes for a transport mode that the state government and the Department have stated they are is committed to encouraging, and whose safety is a priority area under the state's Road Safety Strategy.

As you would be aware, the state government's commitment towards encouraging cycling is because of benefits including improved economic, health and environmental outcomes for the state – which are priorities not just for government but for the South Australian community at large.

We hope this feedback is viewed positively and assists you in refining your designs for this important project. We are aware of and appreciate the effort the Department has invested in the design process to date, and are grateful for the opportunity to collaborate with you to increase the benefits of the project for South Australia and South Australians alike.

Yours sincerely,

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Verdun Interchange

While the new roundabout may well represent the safest junction treatment for this area, roundabouts have a far worse safety performance for cyclists than motor vehicles, being less safe for cyclists than other junction types. The crash type representing about 80% of cyclist crash risk is for approaching vehicles failing to yield to through cyclists.

In this location, the greatest risk would therefore be for cyclists travelling uphill/ southbound and traffic using the new westbound exit ramp failing to yield. And the slower uphill travel means that cyclists will be exposed for a relatively long period. This safety risk can be reduced in two ways.

Firstly, radial rather than tangential design not only reduces vehicular speeds but may also improve the ability of drivers to perceive cyclists, due to the relative angles of approach (Patterson, 2021). We therefore recommend that the design base for the roundabout be radial rather than tangential.

Secondly, there is an opportunity to create a bypass by extending Taminga Grove to the new roundabout, with a refuge in the southern splitter island providing access to Silver Road (dotted blue line in the image below). This would be an unsealed (hard packed gravel) route and represents a degree of detour, so will not be used by all cyclists. However, for the type of cyclist using Silver Road, it may well be attractive, as it would bypass the Hahndorf, Onkaparinga Valley and new roundabout.

While the extension of Taminga Grove (or Hawthorne Road) is reasonably lengthy, part of this might be able to be delivered as part of developing the new westbound exit ramp. There is also a potential upside in creating publicly accessible green space as part of the project, and interesting potential in a degree of separate “bikepacker” tourist route into Hahndorf – noting that Taminga Grove is a picturesque road for cyclists.

Hahndorf Main Street

East side, Ambleside Drive to just north of Hereford Ave: the small kerb extensions proposed appear to serve no real purpose, but will have the effect of reducing space for cycling and creating pinch points for cyclists in an area where traffic speeds are generally higher than for the rest of the Main Street. This is likely to reduce both comfort and safety for cyclists.

A good shoulder exists north of Ambleside Drive, and we instead request that a bike lane or at least sealed shoulder be marked from Ambleside Drive to the end of the Carl Nitschke car park, to provide continuity of access into the township.

We note that a kerb extension for pedestrians to cross is shown near Ambleside Drive. Designing this as a kerb extension in an area that is otherwise a bicycle area would enhance visibility to crossing pedestrians, improving safety.

Carl Nitschke car park driveways: Under the Australian Road Rules, a driveway crossover is a road-related area in which drivers must yield to pedestrians. Instead, the driveway accesses to the Carl Nitschke car park have been designed as roads, which pedestrians must cross. This is poor practice – the driveways should be designed as driveways.

Side street raised threshold treatments: Bike Adelaide is very supportive of such treatments, which are particularly useful for pedestrians with mobility issues and in highlighting the crossing zone to drivers. Currently, Boehm Drive, Braun Drive and Auricht Road are not shown as having any threshold treatment and we suggest that they should have these, for consistency.

We are particularly supportive of continuous footpath treatments as a superior type of threshold treatment to that shown. Overseas research points to a large reduction in the crash risk for pedestrians where continuous footpath treatments are used, and to a lesser extent, the crash risk for cyclists using the main street.

We strongly advocate for all eligible minor side streets through Hahndorf Main Street to have a continuous footpath treatment, including with minor narrowing of junctions where required. The NSW RMS's Technical Note 2013/05 provides the best practice technical guidance in Australia for continuous footpath treatments.

Hereford Avenue: The turning radii at Hereford Avenue appear large and we suggest these be reviewed. Smaller turn radii would reduce the width of the mouth of Hereford Avenue, and hence the crossing distance (and exposure risk) for both pedestrians and cyclists, in addition to reducing the speed of turning vehicles. Given that Hereford Avenue is not a through route, this is also a candidate for a continuous footpath treatment, if the width can be constrained to 7m.

Constructing a kerb extension on the northern side of the junction would also reduce the crossing distance for pedestrians crossing Main Street, using the new kerb ramp provided here.

Johns Lane: Given a new kerb ramp is proposed for the northern side of this junction, a kerb protuberance should be installed at this location to reduce the pedestrian crossing distance.

Pine Avenue: The kerbline opposite Pine Avenue represents a space without on-street parking between two sections of on-street parking. It is thus effectively indented. We suggest that the new kerb ramp shown outside Alec Johnson Park could be provided in a small kerb extension, reducing the pedestrian crossing distance.

Pine Avenue meets Main Street at a very oblique angle. We query whether this could be straightened up, reducing turning vehicle speeds as well as the distance and hence exposure risk for pedestrians and cyclists crossing Pine Avenue. This would improve safety for all road users.

Speed limit/extent: There is no indication of any extension of or change to the 40km/h speed zone through Main Street.

We suggest that the speed zone transition with the environment i.e. that the 40km/h zone should be extended to the gateway locations at Ambleside Drive and Windsor Avenue. In conjunction with a sealed shoulder, the 40km/h extension should reduce the prevalence of "hit fixed object" crashes between Ambleside Drive and Hereford Avenue (from the Location SA Map Viewer, four such crashes were recorded in this area over the last five years.)

Between Hereford Avenue and Braun Drive/Auricht Road, Main Street is a busy road with near constant traffic. The 5-year crash record is very much dominated by "hit parked vehicle" crashes, comprising 24 of the 46 recorded crashes, with four "side swipe" and three "hit pedestrian" crashes also pointing to the effects of a constrained road environment. Despite the proposed kerb extensions and linemarking of parking bays, the actual road environment will not be significantly altered by the Hahndorf Main Street project.

Further, the kerb extensions proposed will leave few opportunities for cars to safely pass slower cyclists, while no new opportunities will be provided for installing median refuges to assist pedestrians to cross the heavy vehicular flow in stages.

We therefore propose that a 30km/h speed zone be implemented, as being the speed at which vehicular traffic, bicycles and pedestrians can interact safely. The lower speed would also reduce the likelihood of "interaction" crashes – hit parked vehicle, side swipe, rear end, hit fixed object – as judgement improves at lower speeds.

We recognise that for political reasons, it may only be possible to achieve a 30km/h zone in the core of the Main Street. Just south of Pine Avenue to north of Braun Drive would cover an area of high on-street parking provision, two wombat crossings and a major pedestrian generator in the form of the local supermarket.

Sharrows: There is a lack of separate on-street space for cyclists, or for vehicles to pass slow cyclists. We would at least like to see sharrows marked, to promote safe interactions between road users and make it clear to drivers that cyclists are expected to be able to share the street safely.

Bicycle parking: There is a general lack of bicycle parking on Main Street. In some areas where no on-street parking is provided between sections of on-street parking, we suggest that on-street bicycle parking could be provided, protected by small sections of kerb extension. Similarly, where kerb extensions could be provided to host a kerb ramp/ pedestrian crossing point, the kerb extension could be made wider than minimum, to host bicycle rails.

Auricht Road: Vehicles accessing Auricht Road often do so at speed, conflicting with other users of Main Street. Noting the fenceline of the property to the south of Auricht Road, there appears to be strong potential to straighten Auricht Road at its junction with Main Street, reducing turning vehicle speeds and the pedestrian and cyclist crossing distance over the mouth of Auricht Road. This would improve safety for all road users.

With an improved alignment, Auricht Road may be a candidate for a continuous footpath treatment, noting that residents located further north could use Pine Avenue as an alternative for access.

Braun Drive: Braun Drive has quite tight turning radii into Main Street. The proposal shows these being increased, which would lead to faster vehicular turning speeds. We suggest that this is unnecessary and counterproductive to both pedestrian and vehicular safety.

Braun Drive is a good candidate for a continuous footpath treatment.

Bus stops: We note that only bus stop 54 (east side) is near a pedestrian priority crossing. Other passengers needing the assistance of a formalised crossing in order to negotiate Main Street traffic must walk some distance from their stop to such crossing locations.

While there are pros and cons of bus stop locations in terms of distance to side streets and hence distance to access stops, and communities are often reticent to consider bus stop relocations, we query whether there mightn't be some opportunities to improve the situation in this regard? E.g. relocating bus stop 54 (west side) to between the wombat crossing and Hereford Avenue (with a minor reduction in the proposed kerb extension width, to suit); or bus stop 54a (west side) further south, to outside the Institute Building, in the area that is currently a PAC. In both cases, there would be no reduction of on-street parking, with potentially an increase in the former.

Mt Barker Interchange

Shared path/s: It is pleasing to see a shared use path being provided on the east side of the Adelaide Road bridge. We would prefer to see paths on both sides, as accessing a path on only the eastern side of the bridge requires someone who wants to be on the western side to cross Adelaide Road twice – which is inconvenient, even with signalised crossings.

This would principally apply to Mt Barker residents west of Adelaide Road and north of, say, Hawthorne Road wishing to access Totness.

Bicycle lanes: We understand that space for bicycle lanes will be provided on the new and old bridge, but not marked until continuing facilities exist at either end of the bridges. We disagree with this decision. The bridges will be some 400+m long, and bicycle lanes for this distance would be very valuable for cyclists. We therefore ask that the bicycle lanes be marked from the outset.

In terms of facilities that the bridge bike lanes connect to:

- Cyclists travelling relatively quickly downhill from the bridges could turn off at Pridmore Terrace to access Mt Barker, and return via the relatively wide footpath on the western side of Adelaide Road, without suffering significantly from a lack of ongoing bicycle lanes in Adelaide Road itself.
- The service road to the west of Adelaide Road at bus stop 62 connects to the pedestrian actuated signals providing access to Cornerstone College and, via short sections of footpath, to Hill Street and Cherington Street.
- To the north, another service road enables cyclists to bypass the roundabout to turn left into Mt Barker Road and Totness.

Bicycle lanes on the bridges would provide valuable protection for cyclists undertaking these trips, in addition to on-road cyclists who would appreciate the protection they are not otherwise afforded in their travels.

Slip lanes: Currently, the slip lanes are provided with an alignment that prioritises vehicular speed over safety for pedestrians or cyclists – they are not high entry angle slip lanes. Nor are they signal-controlled. Many shared path users, both cyclists and pedestrians, would be intimidated by crossing high speed traffic at slip lanes. Further, while the Littlehampton Twin Tunnels provide alternative access across the South Eastern Freeway, personal security issues may apply at night, at which point pedestrians and cyclists might feel forced to use the new shared path. It therefore needs to be of sufficient standard to provide default access to Littlehampton. This means signal protection or priority over slip lanes, for reasons of safety and equitable access for people with disabilities.

The path should also be extended to link to the existing footpath near the old rail crossing of the Old Princes Highway.

Bus stop 62: We note that this bus stop is provided some 120m north of the pedestrian signals that enable passengers to safely cross Adelaide Road, in an area far from land uses. We query whether the stops could be moved further south.

Littlehampton Twin Tunnels: Given that the shared path at Childs Road provides an important alternative to using Adelaide Road for residents and destinations east of Adelaide Road, we suggest that some small upgrades of the connection be made as part of the project. This includes directional signage, removal of superfluous bollards and minor path works to ensure that the path surface is adequate for road bikes (being the cyclist type most vulnerable to poor surfaces).

Wayfinding could similarly be improved for the disused railway tunnel east of Childs Road, for use by able bodied pedestrians as a walking trail.

Extension of Pioneer Women's Trail

New path: No detail has been provided about the design standard to be applied to the Trail extension. While the new Pioneer Women's Trail could be used by cyclists as an alternative to cycling on-road, a shared use path would require a wider path than a walking trail, whereas the project states that "Impacts to vegetation will be minimised by varying the width of the new trail" – which potentially indicates that even a minimum standard footpath width will not be maintained. As such, the project is considered to exclude cyclists from its scope. We request that this be changed.

Silver Road: As well as forming part of the Pioneer Women's Trail, Silver Road forms a bypass of Mt Barker Road for cyclists travelling in the Bridgewater direction, who will do so at low speed because they are cycling uphill, will have little to no sealed shoulder to use along Mt Barker Road, and must negotiate at least one blind bend where high speed traffic may not expect to encounter a cyclist. Although Silver Road is steeper than Mt Barker Road, e-bikes are making this an increasingly attractive alternative to a particularly poor cycling environment.

However, the current form of road closure is difficult for cyclists to negotiate. In particular, it requires cyclists to dismount, then remount on a steep unsealed surface – which is technically challenging (especially when using a tandem and/or when carrying panniers.)

A redesign of the road closure such that cyclists do not have to dismount is a small measure would greatly assist cyclists.

Review/renewal of shoulders: Sealed shoulders allow cyclists to travel largely outside of the traffic stream, improving cyclist safety and comfort, but also enable cars to pass, preventing traffic build up behind cyclists.

For cyclist safety, the minimum sealed shoulder width should be 1.0m, with 2.0m being the desired width in an 80km/h zone (being the width equivalent to a bike lane). Road shoulders of 1-2m also reduce the risk of motor vehicle crashes by giving the driver an area in which to recover, regain control and get safely back onto the road, while consistency of road profile assists drivers in correctly interpreting the road environment.

For much of Mt Barker Road, there is some sealed shoulder. However, the shoulder pavement is quite variable in width and quality. In some places it needs at least a re-sheet for it to be usable; in other locations, the shoulder is depressed and tends to pond and collect debris after rain. There are some opportunities for the seal to be extended over a gravel shoulder to achieve a greater width. Given the proposed extension of the Pioneer Women's Trail, it would be timely to examine road shoulders as part of the project and as a road safety measure.

Where new road seal will be provided in an area used by cyclists, this should have a stone size of not more than 10mm.

Mt Barker Road, Silver Road to Hahndorf roundabout: This section of Mt Barker Road generally has sufficient shoulder width, however the pavement needs at least a re-sheet for it to be usable, and possibly some pavement reconstruction where it is used/crossed by heavy vehicles. This should be taken into consideration in relation to the consolidation of bus stop 48a with bus stop 49, and proposed improvements to bus layovers.

Where the shoulder coincides with the Pioneer Women's Trail (on the southwestern side of Mt Barker Road), a bicycle shoulder area would provide a desirable buffer between the Trail and the roadway. A commitment to sweeping and maintenance will be required for both the Trail and shoulder for ongoing utility.

Two locations in this section do not have adequate shoulders, being around the Onkaparinga Valley Road roundabout and the Hahndorf roundabout.

- At the Onkaparinga roundabout, providing a cycle-friendly ramp and sealing the edge of the roundabout would enable cyclists to bypass what otherwise becomes a location at which they are squeezed into the general traffic stream.
  This applies for cyclists in Mt Barker Road wanting to turn left (red arrow in the following image) or cyclists in Onkaparinga Valley Road wanting to turn left (yellow arrow). These are indicative, in that some path construction would be required due to light poles in the existing area; but that there is also an opportunity to integrate one bypass with the Pioneer Women's Trail.
  Cyclists coming from the Silver Road direction are travelling downhill and will generally able to negotiate the roundabout with fewer difficulties than when travelling uphill,

hence the absence of a bypass in this direction is tolerable, given site constraints. Inclusion of a turning area, kerb ramps and refuge in the Mt Barker splitter island (green dotted line) would provide a bypass for cyclists travelling through from Onkaparinga Valley Road towards Silver Road.

- At the Hahndorf roundabout, a northbound bypass of the roundabout can be provided by incorporating shared use design into the Pioneer Women's Trail extension (red arrow in the following image), with cyclist kerb ramps providing convenient access onto/off the Trail.
  The southeast-bound bypass can mainly be provided using existing space, similarly to the Onkaparinga roundabout (yellow arrow).
  This leaves about 30m unaccounted for (yellow dotted line.) It appears feasible to sweep the edge of the pavement and linemark a shoulder leading into the bypass.

New road bridge: The project will replace the road bridge at Taminga Grove, but the expected profile of the new bridge is not detailed.

Ideally, this would include on-road bicycle lanes. The minimum width for a bicycle lane in an 80km/h zone would be 1.8m. However, given that there are no bicycle lanes before or after the bridge, a sealed shoulder width of 1.0m would be acceptable for the type of rider who will be using the road.

Road shoulders would provide greater consistency for motor vehicle drivers, in terms of matching to the road profile on either side.

If no shoulder is provided, a clearance of at least 0.5m to the roadside barrier should be provided to prevent this forming a hazard for cyclists; and consideration of a high speed cyclist exit ramp on the western side, to allow cyclists to use the Pioneer Women's Trail as a bypass for the bridge. The feasibility of this will depend on what space the Trail provides and is an option of last resort rather than the immediately desirable, due to potential conflict between pedestrians and cyclists. Notably, large groups of pedestrians using the Trail will prevent cyclist using it, leaving cyclists with no safe alternative route.

Mt Barker Road, Taminga Grove to Storch Lane: It is not clear whether the existing second bridge, about 50m east of the Taminga Grove bridge, will be replaced by the new road bridge. The existing bridge has little to no road shoulder for cyclists to use.

If this bridge is not replaced, at least part of the road barriers will probably still be replaced as part of the Taminga Grove road bridge replacement. Opportunities for setting roadside barriers further back from the carriageway to produce a wider shoulder should be examined. A major constraining factor at this location is that two stobie poles are located close to the road edge. Consideration could be given as to whether these could be relocated, given that these are also potentially hazardous to motorists.

Bus stop 51: The bus bay for the northern stop should be redesigned. This currently features build-outs at the front and rear, which are provided in the sealed shoulder and therefore force cyclists into traffic. Indeed, from a cyclists' perspective, the kerb provided west of this bus stop should be removed in favour of a wider shoulder. It is noted that two side swipe crashes have been recorded west of River Road, perhaps indicating that a sealed shoulder would have value for motorists in this area.

A pedestrian refuge should be provided east of River Road, using the width of the existing painted median, to help passengers cross Mt Barker Road safely. The kerbed area should then be sealed to create a footpath linking the existing bus stop to the refuge; or the bus stop relocated to the other side of River Road, with closer access to the refuge, and the bus blocking traffic when stopped.

Bus stop 52: With a wide sealed shoulder on the northern side of Mt Barker Road and a wide verge on the south, consideration should be given to providing a pedestrian refuge to service this bus stop, and also people accessing the Hahndorf Fruit and Vegetable Market – which is on the opposite side of Mt Barker Road to the Pioneer Women's Trail and not independently served by a footpath.