8 December 2014

Horsham District Cycling Forum:
Comments to the Inspector on Documents REP/847002/007A & 007B- PBA Transport, Infrastructure and Flood Risk

Thank you for the opportunity to comment on these reports. Like many others, we were unaware of their existence, having been told as late as 5 Jun 2014 that there were not yet any studies on potential traffic impacts on the links to Horsham. Keeping these documents from the public has prevented proper consultation and debate on the issues and has resulted in a flawed plan.

Contents

Summary

Our conclusion is that these reports add weight to our existing argument that the HDPF is unsound with respect to cycling:

1) **These reports fail to assess or address the need for cycling infrastructure. As a result the sustainability of the North Horsham strategic site has been over-favourably assessed compared with the alternatives. [HDPF is not positively prepared or justified]**
2) **The cycling provision identified in the reports is negligible, substandard and totally inadequate. The North Horsham site requires a particularly high level of additional off-site cycle infrastructure in order to meet NPPF requirements, but this has not been identified, costed or funded and, therefore, will not be delivered. [HDPF is not consistent with national policy]**
3) **The lack of proper assessment for cycling in these documents is additional evidence that HDPF will not be effective as a working document for meeting NPPF requirements for cycling. This will affect future planning applications (including North Horsham), pre-application discussions for proposed developments and strategic site selection.**
   There is no other policy, plan, procedure, funding or officer with specific responsibility for cycling within either HDC or WSCC that will be effective in filling the gap. [HDPF is not effective]

What should happen to the HDPF

In its current form, the plan is unsound and should be rejected

If the plan is approved, there should be the following main modifications:

1) **An SPD on cycling policy that strengthens and adds detail to Policy 39 so that the HDPF is effective and consistent with national policy[1].**

[1] NPPF requires planning to :

- actively manage the patterns of growth for cycling
- balance the transport system in favour of cycling
- give priority to pedestrian and cycle movements
- give people a real choice of how to travel
- take account of whether opportunities for cycling have been taken up
- locate development where the need to travel is minimised and the use of cycling can be maximised
- protect and exploit opportunities for cycling
- create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians
- identify and protect sites and routes which could be critical in developing cycling infrastructure to widen transport choice
- act as a creative exercise in finding ways for cycling to enhance and improve the places in which we live our lives.

Horsham District Cycling Forum will be happy to provide assistance to HDC / WSCC in developing a cycling SPD

2) **A developer-funded transport study focussing on both on- and off-site cycling infrastructure for North Horsham which:**
    - **uses personnel with a high level of expertise in cycling infrastructure**
    - **assesses infrastructure need against not only current levels of cycling, but also potential levels, given suitable connecting infrastructure**
    - **considers the needs of both existing and potential cyclists including: children, older people, people with disabilities, women, commuters and recreational cyclists**
    - **identifies opportunities to integrate high-quality, cycle-friendly design wherever practical, taking advantage of current and evolving best practice**
    - **considers the cycling network and infrastructure quality along the whole of the routes between key destinations**
    - **identifies high quality solutions including long term maintenance requirements and future adaptability**
    - **systematically audits the changes planned for other transport modes to ensure that cycling conditions are not inadvertently made worse**
    - **works with the local community and interest groups to help identify issues and potential solutions[2]**
    - **prioritises better solutions for crossing the bypass and cycle links within Horsham**

3) **A requirement for funding and timely delivery of the identified infrastructure.**

[2] WSCC as the transport authority for Horsham District states: [WSCC will:] **"***work with local interest groups such as access and cycle forums to identify local priorities and assist with infrastructure design and programme delivery" "involving the cycling community to highlight local priorities and to develop cycling infrastructure and initiatives to meet local needs" LTP3*

Evidence from -007A and -007B that shows why HDPF is unsound

Why the development cannot meet NPPF with the current off-site infrastructure

The current provision of cycling facilities within Horsham is "not sufficient to support and maintain sustainable travel"[3]. This is because much of the network is of substandard quality, is disjointed and suffers from inadequate signing, lack of safe crossing points, poor surfacing and lack of maintenance[4]. Safety for cyclists in Horsham is poor.[5] "There is limited funding available for infrastructure improvements,"[6] therefore it is important that "maximum transport benefits are secured from the major strategic housing developments … so that they fully integrate with existing communities and mitigate any impacts"[7]

The development cannot rely on the existing inadequate cycle infrastructure to meet NPPF requirements including "locate development where … the use of cycling can be maximised" and "give people a real choice of how to travel".

Therefore, there needs to be significant expenditure on improving the existing infrastructure to meet the needs of the development. The reports mention cycling and completion of the Horsham-Crawley cycle route a number of times which initially gives the impression that cycling needs are in fact being addressed. However, a closer examination shows that the references to cycling are superficial and repetitive. The total cycle-specific provision is negligible, substandard and totally inadequate; it amounts to some road-marking paint, some 'cycle' / 'Cyclists Dismount' signs and a TRO.

NPPF requires cycling to be prioritised. Therefore, this failure to meet cycling needs cannot be justified on the grounds that the tens of millions of pounds of s106/CIL transport money associated with this development has already been allocated to increasing motor vehicle capacity and that there is no money left for cycling[8]. Very substantial sums have also been allocated for bus and train travel.

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[3] *WSCC LTP3, page 60*

[4] *See for example: LTP3. Horsham Cycle Review 2009.W Sussex RoW Improvement Plan, Horsham District Community Partnership Transport Plan 2005*

[5] *Francis Maude, WSCT 22/11/14*: "all MPs have been sent a Safer Streets report card which tells us how our own constituencies measure up in terms of four key indicators. The grades run from A* (best) to F, and are compared with the national average. Mine tells me that here in Horsham we have no room for complacency: our total of 19 pedestrians and cyclists killed last year gains us an E grade"
Cyclestreets collision data: Between 2005 and 2013 in Horsham town and Broadbridge Heath 21% of serious/fatal injuries were to cyclists. (Only about 1% of total journeys were by bike.)

[6] LTP3, page 59

[7] LTP3, page 60

[8] NB Although NPPF says that "Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe," a "residual" impact is one that remains AFTER NPPF requirements to give priority to pedestrian and cycle movements have been followed.

What off-site infrastructure measures are included in the reports?

The only measures included are**:**

Removal of parking from Rusper Rd -but only if the Parkway station (which is not part of the plan) goes ahead. Car parking could actually be removed in the absence of the North Horsham development simply by means of a TRO and some double yellow lines. We understand that an informal survey showed that a significant proportion of the parked cars currently come from well outside Horsham. We are aware that Liberty has conducted a survey, but the results do not appear to be publically available.

The HDPF does not include a parkway station, therefore there will be additional traffic and parking problems around Littlehaven station[9]. This will make cycling conditions worse than they are currently, but there is **no mitigation** proposed.

'A cycle lane' on Rusper Rd to join with the existing cycle lane further south. Would this meet LTN2/08: 2m width (absolute minimum of 1.5m), and would there be a lane in both directions? From the information available, this appears unlikely:

- carriageway width is generally only about 6.5m, but there is no mention of carriageway widening
- the existing cycle lane is southbound only and of a seriously substandard width
- 007A, Appendix A (an abandoned plan from 2009), shows a single substandard width shared-use footway, rather than two 1.5m cycle lanes

Safer bypass crossings. The proposed layout for Rusper Rd roundabout is shown in 007A Fig 5.8. There is no footway or cycleway shown across the junction. Crossing the roundabout northbound appears to require 4 separate crossings. There appears to be no clear route at all for crossing in a southbound direction. There is no statement of (the inevitably long) wait times for pedestrians and cyclists. There is no discussion of safety for NMU or speed limits. It appears that crossings will be pedestrian-only and that cyclists will either need to ride across the dual carriageway itself or dismount and become pedestrians. There is no evidence of plans for cycle provision on the road north of the roundabout.

The design has not given "priority to pedestrian and cycle movements"; there has been no cycle audit or cycle conflict analysis and there is no proposed cycle-specific infrastructure. The situation for the other junctions on the bypass is similar.

The reports claim that at-grade crossings are more attractive to cyclists, but it is clear from this report and PBA's oral evidence that the key factors in determining the choice between bridges and at grade crossings are cost and road capacity, not cycling.

For cycling to be a 'real option' for everyone, grade separated crossings are necessary and underpasses are preferred for cycling (See **Appendix A**: W**hy underpasses are preferred to at-grade**

[9] See -007A Figure 4.5, page 37

crossings or bridges). Underpasses also have less visual impact. Despite indications in Liberty's first publicly available proposals, there is no consideration of underpasses in the reports.
Because the bypass is embanked, the 'alternative' cycle/footbridges bridges in -007A, Figure 2.8 will have an excessive climb (up to 11m) above ground level, will need a large land-take and will be visually intrusive. The designs shown do not meet best practice for cycling.[10]

Links to public rights of way to the north of the site. These are important and very welcome, although there is a lack of specific detail.

What offsite infrastructure measures are missing from the reports?

No transport study focussing on cycling. A proper study is required to identify the issues and opportunities and to evaluate and cost the alternative solutions. It is, however, already clear that the following issues and opportunities have been missed out of the reports:

No use of the existing railway subway for the Horsham-Crawley cycle route

This would be the shortest and safest route. It is traffic-free, level, out of the flood zone, has good visibility and is suitable for a sealed all-weather surface. Minimal engineering work is required as the structure is already in place. It has been the intended route since at least 2003 and is Sustrans' preferred route for NCN228.[11]

There is no evidence of any attempt to resolve the 'landowner' issues mentioned. Indeed, it is difficult to see how any significant issues could remain. The earlier landowner issue concerned land that is now safeguarded for a possible parkway station. Other landowners appear to be the railway (where the route would use an existing high quality public footpath FP3565), WSCC (where the route crosses the highway) and (presumably) HDC or WSCC for the short section of woodland south of the bypass.

As well as completing the Horsham – Crawley route, this subway would be a valuable crossing point for residents and workers making shorter journeys.

No provision to upgrade the Riverside Walk between Rusper Rd and Pondtail Rd

In 007A, Figure 2.7 and elsewhere, the reports suggest the new development will deliver a cycle route here. Although cycling here has long been an aspiration and it remains Sustrans' preferred route, this is currently only a footpath. The Horsham Town Community Partnership Riverside Walk project team is working on a voluntary basis trying to secure funds to upgrade this route. They have indicated that they are happy for the route to be used for cycling but it needs additional funding in order to meet LTN1/12 and Sustrans standards for cycling.

[10] The slope is essentially at the maximum permitted. A gentler slope, reducing towards the top is better for cycling. On bridges with a well-aligned approach, this causes no extra walking or cycling distance. International best practice is to plan for plenty of free deceleration space at the bottom of the incline rather than to deliberately slow cyclists.
[11] Confirmed in June and again in December this year by Gordon Easden (Sustrans)

No overall plan or vision for cycle links to key destinations that are direct, safe, comfortable and attractive:[12] In particular there is no proposal for a cycle route into Horsham town centre that meets or exceeds the standards of LTN2/08. To really give priority to cycle movements and make an impact on levels of cycling, there should be a good Level 1 route into Horsham. At the very minimum there needs to be a direct route that could be cycled safely with a minimum of delays by any adult or child with skills at Bikeability Level 2.

No provision to improve cycle routes between the development and destinations in Horsham. Cycle routes between the development and Horsham town centre are deeply unsatisfactory. Even the section along Horsham's 'flagship' cycle route from the station to the Carfax would fail an audit to approve it as a modern cycle route[13]. The other sections of the route are worse. Bringing these up to standard requires careful study and significant expenditure.

Without improved cycle infrastructure, links between the development and Horsham town centre cannot meet NPPF requirements. For example it will not be located where 'the use of cycling can be maximised' and people will not have 'a real choice of how to travel'; the 'opportunities to protect and exploit cycling' will not have been taken up; the transport system will continue to be 'balanced in favour' of car travel.

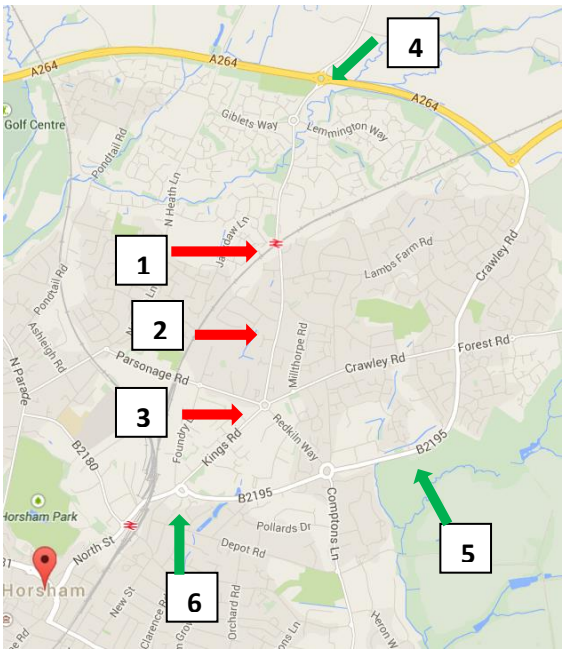
Additional traffic from the development and increased flares on roundabouts will make conditions for cycling even worse. See **Appendix A** for further analysis.

No traffic reduction within Horsham. An important factor in achieving "a real choice of how to travel" is reduction of traffic volumes. This is the top of the Hierarchy of Provision[14], however the reports do not address traffic reduction for cycle routes.

One option for significant traffic reduction is to restrict the Rusper Rd site access to walking, cycling (and, possibly, buses) only. Car traffic would route via the Moorhead roundabout / Harwood Rd and the A24. This would also cut out rat-running through town by existing residents. Conditions for cycling along this direct route could be significantly improved resulting in a modal shift towards cycling.

The Harwood Rd is wider and faster than the Rusper Rd. It has no level crossing and fewer junctions and properties fronting it. It joins up with the Rusper Rd route at the Harwood Rd/King's Rd/North St roundabout. It is at this roundabout, not along the Harwood Rd where capacity problems will occur so, broadly speaking, overall capacity is the same whether or not the development traffic uses Rusper Rd.

[12] Core principles in LTN2/08, page 10
[13] Route scores 24.5/50 using the new Welsh Active Travel Audit tool. The pass mark is 35/50.
[14] LTN2/08 Hierarchy of Provision



Option to reduce traffic on Rusper Rd, and increase sustainable transport use by improving conditions for cycling.

Problems with proposed Rusper Rd route for cars:

1. **Level crossing slows journey**
2. **Many side roads and properties fronting road**
3. **Roundabout above capacity without widening**

Alternative:

4. **Restrict vehicle access at Rusper Rd roundabout**
5. **Route traffic via faster Harwood Rd, B2195**
6. **Routes meet**

Another example of traffic reduction that could be achieved is to reduce unnecessary car travel to Horsham station. Report -007A, Figure 4.4, '*Traffic patterns without North Horsham Station'*, shows that, without the parkway, there will be a higher than originally anticipated volume of (mainly) peak hour traffic accessing Horsham station via the Worthing and Guildford Roads. This traffic will affect conditions for cycling between Horsham and North Horsham and could be mitigated by improving access and parking at Christ's Hospital station for commuters from Southwater and Broadbridge Heath (rather than the current policy of 'encouraging' people to travel by bus to Horsham station). Christ's Hospital has a good commuter service with 4 fast trains arriving in London during a 70 minute peak period between 07:49 and 08:59. More car and cycle parking and direct all-weather cycle routes can make Christ's Hospital station the preferred choice for more commuters.

Lack of detail on cycle route to Warnham station. Since the HDPF does not include a parkway station, the role of Warnham station within the HDPF has increased, but there is no detail on a cycle route to the station.

No examination of potential use of the Dorking line railway subway. There is no indication that any attempt has been made to investigate the feasibility of using the existing subway under the A264. Although there are some issues to overcome (off-site landownership, flooding, landscape), these are likely to be cheaper to address and result in less land take and visual intrusion than a bridge; the resulting route would be safer than an at-grade crossing and benefit both new and existing residents.

No segregated commuter cycle route along A264. The A264 is the shortest, flattest and fastest route to Crawley. A parallel, segregated cycle track would make cycle commuting between Horsham and Crawley a realistic option for significantly more people and is in line with LTN2/08, and Ambition for Cycling. The width required for cycling is relatively modest and costs would be minimised by carrying out work at the same time as the changes being made for motor traffic. It is very

disappointing that such major works are going ahead on the bypass without any consideration of cycle proofing[15].

What on-site infrastructure would meet NPPF for cycling?

A green field development of this size is a golden opportunity to integrate cycle infrastructure throughout the design process to provide a safe and attractive cycling environment for both existing and potential cyclists: men, women, children, older people, people with disabilities, fast commuters and recreational cyclists. It is an opportunity to take advantage of current guidance; recent legal changes that now permit more design flexibility; the government's willingness to assist trials of new designs and international best practice.

There can be direct, safe, attractive, traffic-free routes without pedestrian conflict alongside distributor roads and to key destinations such as the schools, shop, stations, the business park and the countryside. It is an opportunity to have home zones, 20mph zones, side entry treatments that give cycle priority across minor side roads and filtered permeability that makes cycling faster and more convenient than the car. It is an opportunity for better cycle parking and residential cycle storage that genuinely makes cycle parking at least as convenient as car parking.

What on-site infrastructure measures are included in the reports?

The measures mentioned in the reports are:

Cycle route along Bush Lane bridle path. Because this is in a Zone 3 flood area, it will not be usable year round and this will be a particular problem for commuters. There is no mention of providing a smooth, sealed all-weather surface. The bridle path is an attractive leisure cycle route, but it is a very inferior option for the Horsham-Crawley cycle route.

Other cycle routes within the development. There is little detail –presumably the plan is for on-road provision (without cycle lanes) and some shared-use paths. Shared-use paths are right at the bottom of the Hierarchy of Provision[16] and should therefore be used as a last resort, not a default option.

Although there is specific mention of the need to discourage east-west car journeys, there is no mention of the accompanying need to facilitate east-west cycling by providing continuous, direct, and legible east-west tarmacked cycle routes that avoid pedestrian conflict. The diagram (-007A, page 2) suggests continuity and legibility may be an issue as cyclists cross the housing areas.

[15] Patrick McLoughin, the Secretary of State for Transport: *"We've got to, in future, 'cycle proof' all road developments"*

[16] LTN2/08

What other issues are there in the reports?

Although there has not been time to fully examine the transport modelling, some of the assumptions in the reports appear unrealistic. For example:

Walking and cycling levels are over-estimated and car use is under-estimated

Estimates of likely walking and cycling levels appear optimistic. The baseline figures are from 2001 and may not be reliable. In any case, it seems unlikely that cycling levels will be as high as in existing North Horsham because:

- the development will be further away from the town centres (Horsham and Crawley)
- the bypass is an actual and psychological barrier
- there will be fewer nearby facilities (variety of shops, hairdresser, post office, churches, pubs, community halls, restaurants etc) within the development than there are locally in existing North Horsham.
- Many residents are likely to drive to Crawley for shopping and leisure rather than walk or cycle because of the significant distance to Horsham and the actual/psychological barrier of crossing the bypass.
- The demographic that buys new houses in a development such as this is probably disproportionately likely to drive.

Mitigation measures are based on the assumption that the parkway station is built

For example, no mitigation for the King's Rd/Harwood Rd roundabout is proposed in -007B, section 4.6.9, on the basis that the parkway station will reduce traffic levels there. The parkway station is not part of the plan.

More of the traffic will use town centre roads than assumed by the models.

This increases the need for good cycling infrastructure. In addition to the arguments put forward orally by various speakers at the Planning Examination, the assumptions made in 007B understate the likely proportion of traffic using the town centre roads :

- -007B, 3.5.4 states: *"It is assumed that residents from within the town centre and west of Horsham would use the western site access and travel via the A24".* Using the A24 is a far greater distance and residents from the town centre and west of Horsham are far more likely to use the A264/Rusper Rd roundabout via Rusper Rd and North Heath Lane as they currently do.

- Not all children will attend their 'catchment' school, so there will be significant numbers[17] of pupils crossing the bypass to get to or from school; many will travel by car. The assumption in -007B, 3.5.5, that "all peak hour vehicle trips travelling 3.5.5 to and from the school are primary school staff" leads to a significant error.

- -007A implies that co-location will result in a similar proportion (15%) of people living and working locally as at King's Hill. However, King's Hill has a quite different employment situation to North Horsham as, in addition to having a business park, it is adjacent to the Tonbridge and Malling Borough Council Headquarters, major shops and a golf club – there are no equivalent employment opportunities for North Horsham.

[17] Over 30% of children attending the nearest two primary schools in existing North Horsham travelled to school by car in 2011. Source: http://thebikeshow.net/school-level-data-cycling-to-school/

- At off-peak times, traffic lights on the bypass can only increase journey times compared with the current free-flowing 70mph traffic.This will increase the proportion of people who choose to drive through the town centre instead of using the bypass.
- At peak times, there will be significant traffic flows across the bypass – does the traffic modelling really show that traffic flow along the bypass will not be slowed?

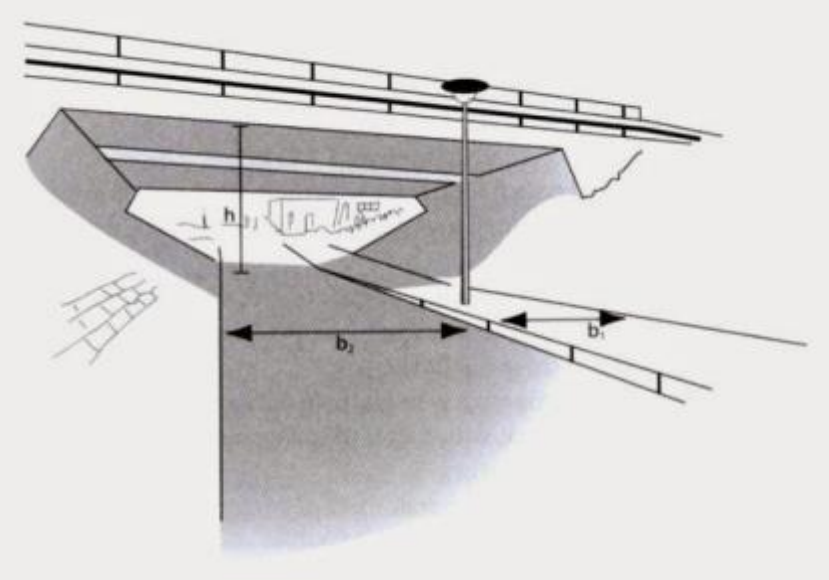
Appendix A: Why underpasses are preferred to at-grade crossings or bridges

In the case of the A264, well-designed grade-separated crossings do not just offer "enhanced perceptions of safety"[18], they offer higher actual safety. High speeds mean that a single mistake is likely to be fatal for pedestrians or cyclists. School children will need to cross in winter conditions with low light, fog or ice. Drivers, who may be drunk or racing along the bypass, may fail to observe traffic lights. Long wait times (because lights are phased to maximise vehicle capacity) and multiple crossing stages increase the chance that pedestrians and cyclists will cross 'against' the lights; high vehicle speeds make it more likely that they will misjudge the gap or that, if they trip, an approaching vehicle will be unable to stop. On occasion, the traffic lights may fail. Noise, pollution and road spray make at-grade crossings unpleasant.

Best practice is for cyclists to be able to maintain momentum on a straight and near-level path away from high speed, high volume traffic. Underpasses need less change of height than bridges as there is only need for enough headroom for a cyclist, rather than for a high vehicle. Where the road is embanked, as is the case with the A264, a bridge needs an even greater change of height –in this case up to 11m. The bigger the height differential the greater the land take and visual intrusion. In addition, the climbing is less onerous for underpasses because cyclists descend first, picking up speed for the climb back up. Good design with adequate width and a visible exit can ensure social safety.

The existing subway at Rookwood Golf Course is very successful (although for accessing the populated North Horsham development we would expect a higher standard of lighting, footway and drainage).

Examples of good cycle underpass design



CROW ideal tunnel impression. Short, open, well lit, separate pedestrian path also of good width. Splayed out sides

Picture from http://www.aviewfromthecyclepath.com/2014_08_01_archive.html

[18] -007A, 2.2.6, page 13

Cycle underpass at the Twin Bridges roundabout in Bracknell, which carries the A329. The cycle path is wide and smooth and clearly separated from the footway with a shallow kerb.

Picture from www.cycling-embassy.org.uk

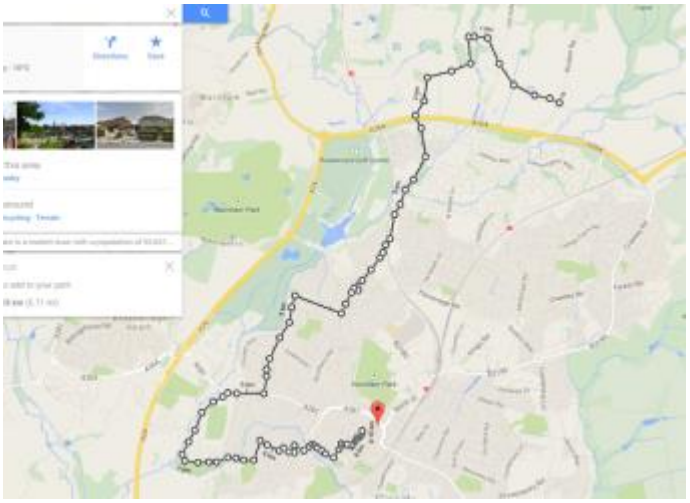
Appendix B: Cycling on the link roads to Horsham

Due to time constraints, this Appendix does not cover all routes, locations, issues or alternatives. It focusses on a direct route between North Horsham and the centre of Horsham and considers

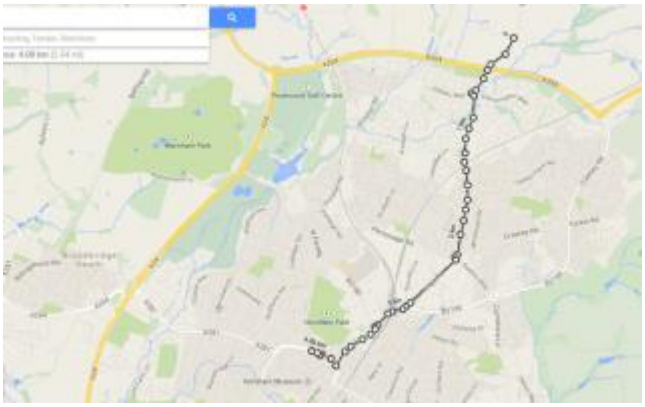
- the existing conditions
- the problems caused by the development
- the cycling measures within the reports
- some possible solutions

This is enough to give a flavour of the extent to which the reports fail to assess and plan for cycling needs.

The only route between the development and Horsham town centre that is suitable for an adult or child using Bikeability Level 2 skills is via Pondtail Rd and the soon-to-be-completed LSTF HR4 route. This is a distance of about 5.7 miles and it is simply not credible that anyone would use it:



The direct route from the development to Horsham town centre is 2.5 miles. This whole route is already hostile for cycling and the additional traffic predicted in the reports will worsen cycling conditions:



Looking at this route in more detail:

1) From the A264 Rusper Rd roundabout, there is a 30mph speed limit, but it is routinely exceeded; there is no footway or cycle infrastructure:

-007A, Appendix A possibly implies that there will be a substandard shared-use footway constructed on one side of this road.

2) Rusper Rd/Giblets Way roundabout has a wide carriageway and wide splays which increase vehicle speeds and make cyclists vulnerable to being hit by vehicles entering roundabout and to left-hooking on the roundabout. There is no existing cycling infrastructure.

-007B states “flare length on the Rusper Road north approach can be extended”. Large flares generally decrease cycle safety, but there is **no mitigation** proposed for on-road cyclists. Few cyclists in this urban fringe location will be content to dismount to cross the roundabout as pedestrians.

3) Cars parking for Littlehaven Station use Rusper Rd and nearby roads. Parking on Rusper Rd stretches roughly from Giblets Lane to the level crossing:

-007A, Appendix A possibly indicates provision of a substandard shared-use footway along just part of this stretch and on one side of the road only. Alternatively (?) there is mention of removing the parking and creating 'a cycle lane' but according to the reports, only if the parkway station is built – which it is not part of the current plan. Without the parkway station, demand for parking will increase. There are **no alternative proposals for cycling** provision along here in the absence of the parkway station.

-007A, Appendix A also shows a possible cycle-priority crossing of Giblets Way. Such cycle-priority crossings are highly welcome, but need to be part of appropriately designed cycle tracks.

Horsham District Cycling Forum has previously put forward proposals for improved cycle parking at the station and for cycle- permeable links through from local cul-de-sacs to improve accessibility to the station for local residents.

4) The road near the busy level crossing is too narrow for cyclists to filter properly so motorists and cyclists hold each other up on the hill:

5) South of the level crossing, Rusper Rd is a busy, narrow distributor road. It has a seriously substandard cycle lane in one direction only which is frequently blocked by cars parking at the local shops:

6) The Rusper Rd/King's Rd roundabout has the highest level of cycling of the major roundabouts (as confirmed by the manual traffic surveys in -007B, Appendix A), but is important to note that current cycling levels are actually suppressed due to fear and intimidation. Despite many people avoiding cycling here, the roundabout has a particularly bad safety record for cyclists. Between 2005 and 2013, 11 out of a total of 18 injury accidents were to cyclists (with 3 further injuries to motorcyclists, one pedestrian injury and just one motorist injury).

The data in -007B indicates that traffic levels will increase and proposes "extension of the flare lengths on four of the five approaches" (Appendix 4.4.9). Both the increased traffic and the increased flare will make cycle safety even worse, but there is **no mitigation** proposed.

Safety on this roundabout could be significantly improved by redesigning it to a so-called continental geometry, possibly with Dutch-style segregated cycle tracks, well-proven in the Netherlands and recently trialled by TRL for TfL. A recent continental redesign of a similar roundabout, on Perne Rd, in Cambridge (without cycle tracks), cost around £400,000.

7) King's Rd has a seriously substandard cycle lane in one direction only. It would be possible to reduce traffic here by using filtered permeability (cycles, buses and access only), and diverting motor traffic via the existing Harwood Rd relief road:

8) The King's Rd/North St roundabout has some fragmented cycle provision which requires those cyclists who are not confident to tackle the roundabout on the carriageway, to share a narrow footway. The footway leads to an uncontrolled crossing where the traffic flows are particularly difficult to negotiate:

There are a number of ways this roundabout could be improved for cycling ranging from small changes such as a bypass for cyclists entering King's Rd from the south, to creating Dutch-style cycle tracks and reducing size of the centre island.

Section 4 of 007B acknowledges that this roundabout is already operating above capacity, but no changes are proposed because the report assumes that the parkway station will bring it back within capacity. However, the station is not part of the plan so there are **no valid proposals** for this roundabout within the report.

9) North St railway bridge is steep and intimidating with a blind bend and suffers significant congestion. There is not enough room for cars and bicycles to pass each other. Many cyclists avoid riding over this bridge, even though there are no good alternatives:

The Horsham Town Plan SPD of 2012 seeks "realignment of North Street and the delivery of a new bridge over the railway line, alongside a new access roundabout connecting directly to North Street" (page 34, 6.15).

A similar railway bridge in Cambridge (Coldhams Lane) has a new cycle/foot bridge built alongside the existing road bridge:

Coldhams Lane railway bridge, Cambridge

10) North St station roundabout to the Carfax has some of the best cycle infrastructure in Horsham. However, using the new Welsh Active Travel Design Guidance audit tool, even this fails as a cycle route, only scoring 24.5/50 (35/50 needed to pass).

Additional cycle parking will be needed at Horsham station.