



Daventry LCWIP

Inter-urban routes design recommendations

West Northamptonshire Council - October 2022

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REVIEWED BY CS

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1 BRAUNSTON

SUMMARY OF CURRENT CONDITIONS FOR CYCLING

At approximately 3.7 miles, Braunston is within easy cycling distance of Daventry along entirely traffic-free or very low traffic lanes and roads. The route has potential to support both utility and leisure cycling. Pupil postcode data shows that many children attending Braunston CE Primary live in Daventry, including some in the new development close to the Daventry to Braunston Cycle Track which is only approximately 1.5 miles from the school. For these pupils, walking to school along the towpath may already be possible in summer but the provision of a wider walking and cycling route away from the edge of the canal is likely to encourage more children to walk or cycle to school

From Daventry, a wide, well-lit and well-used subway connects the town centre to the start of the disused railway line just to the north of the Icon Innovation Centre and it is a simple cycle ride to the end of the route at Farnborough Drive where there is a short deviation to join the recently completed Daventry to Braunston Cycle Track (Phase 1) to the western end of Braunston Tunnel. The link between here and Top Lock is not currently navigable by bike due to a steep gradient and steps and a narrow tow path. The Canal and River Trust is currently undertaking a feasibility study to understand the technical feasibility and cost of create a cycle route along the embankment adjacent to the tow path to fill this gap in the route.

Beyond Top Lock, the route follows bridleways and quiet lanes until it reaches Welton Lane/ The Green/ High Street in Braunston. These are already suitable for most types of cycling and require very little improvement to complete the route although there is a short section at the Top Lock end of Dark Lane that is currently undesignated. Extending the bridleway designation to Top Lock would give all users the certainty that access is permitted.

In future, the route could be extended to Willoughby or Wolfhampcote and beyond the National Cycle Network route 41 either by providing a cycle track alongside the A45 or by upgrading existing public rights of way. Many of the rights of way in this area are bridleways and horse riders should be considered in the design of routes, both in terms of the width and surface, to ensure it is suitable for all users. It is recommended that links to Willoughby and Wolfhampcote are reviewed in more detail once the Daventry to Braunston link is in place.



DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



Welton Road is a quiet dead end street which is already a popular pedestrian and cycle route with existing traffic calming.



The subway under Eastern Way is wide and well lit with a separate footway for pedestrians.



Wayfinding between the subway and the route along the disused railway is currently poor. Welton Road was observed to be very quiet and easy to cross at the time of the site visit but a more formal crossing point would help strengthen the connection. The priority junction



The route along the disused railway line is generally in good condition, has a bitmac surface, street lighting and good wayfinding along it.



There are some short sections along the disused railway line where the surface has cracked and others where tree roots have damaged the surface and made it uneven which could cause a trip hazard for pedestrians and make the route uncomfortable for cycling and scooting, particularly for disabled cyclists.



The majority of the route is accessible with very few barriers but there are a small number of bollards and barriers that need to be removed or re-sited to make the route fully accessible and reduce the risk of collisions.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



The route along the disused railway is largely grade separated from roads but crosses Shackleton Road at grade. Design priority is given to pedestrians and cyclists through the use of block paving but this is compromised by give ways on the shared use path which could cause confusion about who has priority.



Unlike most of Daventry's traffic free network where access points are marked with two simple, slim bollards, the end of the disused railway route at Farnborough Drive has five large bollards which make the route difficult to access for people with prams or non-standard cycles.



The disused railway route ends at Farnborough Drive and the new Daventry to Braunston Phase 1 link starts approximately 40m up the road but the route continuation is poorly signed and it is unclear what route cyclists are supposed to take along Farnborough Drive.



A sign board at the start of the new route provides useful information about the new link towards Braunston.



The A frame at the end of the new link means people with prams, mobility scooters and non standard cycles may be excluded from going beyond this point, including to the existing bridleway over the canal tunnel.



There is an existing bridleway which begins at the end of the new link which heads eastwards over the top of the canal tunnel linking back into the canal towpath and the new residential streets in Daventry.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



The gravel and stone path from the new Daventry to Braunston link has a very steep gradient.



The last section of the route to the canal towpath is stepped.



The canal towpath is currently very narrow and unsurfaced with vegetation and overhanging trees further reducing the usable width. It is not currently suitable for cycling.



There is slightly more space at Top Lock but consideration needs to be given to accommodating boaters working the lock, walkers and cyclists here.



Between Top Lock and the Admiral Nelson pub, Dark Lane is a bridleway with a stone surface which is suitable for walking and horse riding and some cycles but not accessible for all users such as mobility scooters, wheelchairs or some cycles, particularly non-standard cycles used by some disabled cyclists.



Existing horse parking at The Admiral Nelson pub suggests accommodating equestrians on the route as well as pedestrians and cyclists needs to be a key consideration.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



Between the Admiral Nelson pub and Welton Road in Braunston, Dark Lane has a good surface and has very low traffic flows



Welton Road was observed to be very quiet at the time of the site visit with speeds and traffic flows that would support on-carriageway cycling though the junction between Dark Lane and Welton Lane was observed to be very wide which could encourage fast turning



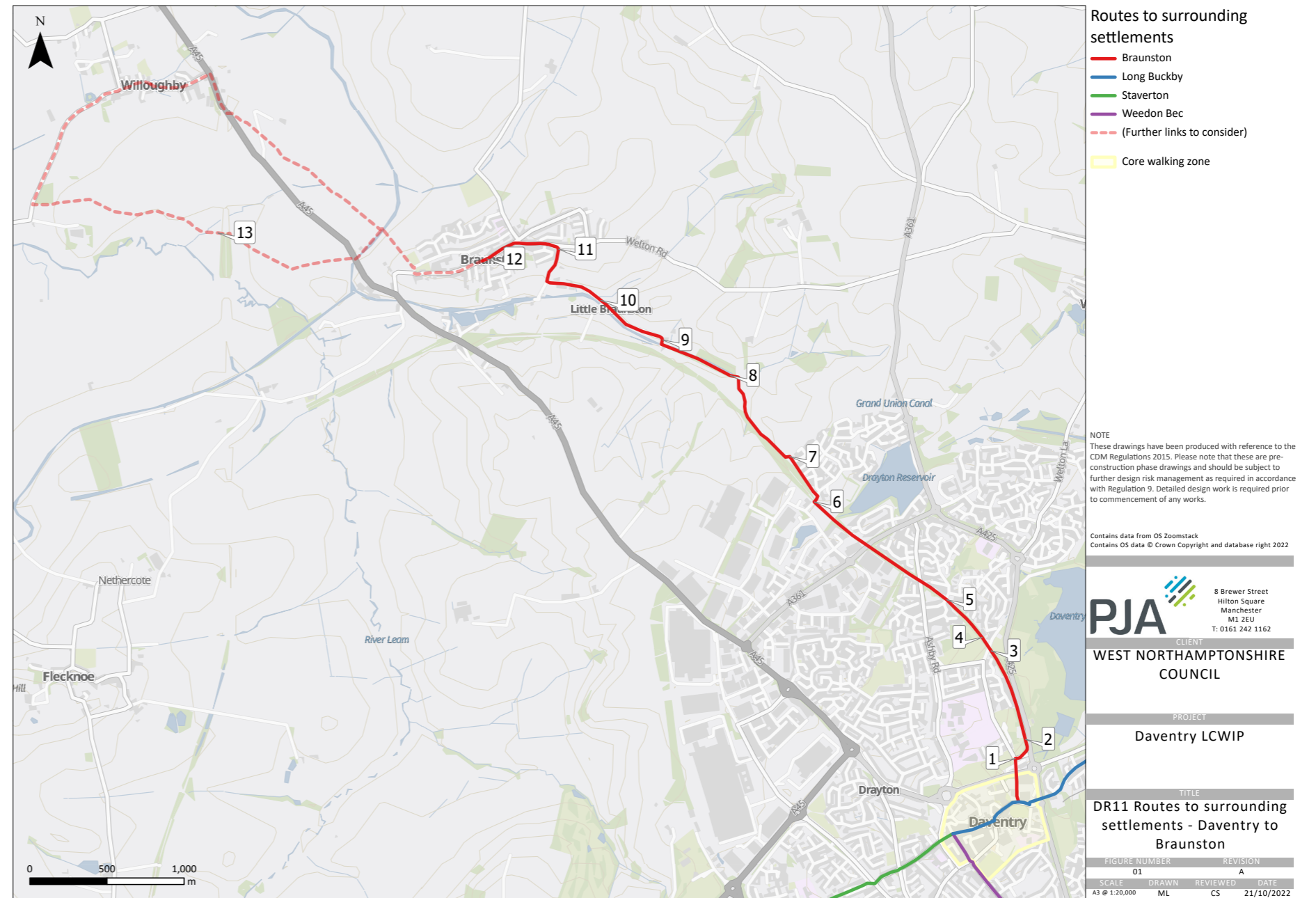
The junction of High Street and Cross Lane is the focal point of the village and where the route is proposed to end. The junction is currently unusually large with parking outside nearby houses plus the butcher and café accommodated within the junction.



The footway outside the café and butcher is currently relatively narrow in contrast to the road which accommodates parking within the priority junction.

DESIGN RECOMMENDATIONS

1. Improve the signage and wayfinding between the subway under Eastern Way and the route along the disused railway. Consider providing a more formal crossing point (either uncontrolled or controlled depending on the traffic flows and speeds) to further strengthen the connection.
2. Review the condition of the surface along the disused railway line and undertake localised repairs where the surface is cracked or damaged by tree routes.
3. Review bollards and barriers along the disused railway and remove or re-site any that prevent access by all types of cycles (bollards should be placed at least 1.5m apart) and add reflectors to any remaining bollards to reduce the risk of collisions.
4. Review the branding and wayfinding along the disused rail including consideration of naming the route to help promote it.
5. Improve the at-grade crossing over Shackleton Drive, priority for cyclists, for example by installing a parallel zebra to provide marked priority to pedestrians and cyclists or by removing the give way markings on the disused railway route so that it has clearer design priority over Shackleton Road.
6. Remove the bollards at the end of the disused railway line route and improve the link between route on disused railway line and Daventry to Braunston Cycle Track. For example, install a dropped kerb at the end of the disused railway line and cycle symbols and arrows on the carriageway to guide cyclists between the two cycle routes.



DAVENTRY LCWIP - DESIGN RECOMMENDATIONS

7. Remove the A frame at the end of the Braunston Cycle Track to ensure cyclists can access the bridleway over the top of the canal tunnel. Consider improving the bridleway in future to strengthen the leisure route along the canal eastwards for walkers and cyclists
8. Improve the route adjacent to the canal towpath between the end of the Phase 1 Braunston Cycle Track and Top Lock in line with the findings of the feasibility study currently underway for the Canal and River Trust.
9. Resolve the right of way issue between Top Lock and the start of the bridleway on Dark Lane.
10. Consider upgrading surface in future to make it accessible for all uses including wheelchair, mobility scooters and non-standard cycles.
11. Tighten the junction of Dark Lane and Welton Road and provide wayfinding.
12. Tighten the priority junction of High Street and Cross Lane and create a build out to formalise the on-street parking while potentially provide widened footways and more outside space for the butchers and café.
13. Once the link to Braunston is delivered, extending the route to Willoughby should be considered, to cater for leisure cycling.

BEST PRACTICE



Controlled crossing points give pedestrians and cyclists priority over motor vehicles and can help with wayfinding.



Branding and high quality wayfinding can help promote routes to a wider audience.



Narrowing priority junctions and overly wide carriageways can help calm traffic as well as providing space for wider footways, benches, pocket parks and formalised on-street parking.



Controlled crossing points give pedestrians and cyclists priority over motor vehicles and can help with wayfinding.



Where there is demand from horse riders, consideration should be given to providing a grass strip along side the path or using a surface such as Flexipave (a mix of stone and recycled car tyres) that is suitable for all users.



Narrowing priority junctions and overly wide carriageways can help calm traffic as well as providing space for wider footways, benches, pocket parks and formalised on-street parking.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



- 1 Existing wider footway on northern side of High Street retained
- 2 Footways widened into the carriageway to reduce the size of the junction radii at High Street/Cross Lane. This newly created pedestrian space can be used for street furniture, cycle parking or greenery
- 3 Raised table over High Street to calm traffic and provide pedestrian priority. Central line markings removed through centre of the village to reduce driver certainty and encourage more cautious driving behaviours
- 4 Existing seating area outside the cafe
- 5 Rationalised number of painted parking bays. Formalised on both sides to visually narrow the carriageway and to provide intentional gaps for pedestrians to cross and road users to pass one another if needed
- 6 Build outs between parking bays to provide space for planting and/or street furniture. Build outs can also be used to break up the line of parking and provide more crossing opportunities for pedestrians

Indicative layout for Braunston with junction tightening, footway widening and formalised on-street parking creating more spillout space at village centre

2 STAVERTON

SUMMARY OF CURRENT CONDITIONS FOR CYCLING

Staverton is just over 2 miles from Daventry town centre meaning it is within reach of people both cycling and walking. Staverton Park Hotel & Golf Club located just to the north east of Staverton is likely to be a key destination for residents of Daventry and Staverton both for work and leisure and is only one mile from residents living on The Grange estate. Pupil postcode data shows that the majority of children attending Staverton CE Primary School live in Daventry while a number of pupils attending the Parker E-ACT Academy live in Staverton suggesting that, if a safe route can be provided, some pupils may choose to walk or cycle to school.

From the town centre to Stefen Way, there is a relatively direct route for pedestrians and cyclists along Tavern Lane, Warwick Street and Staverton Road but improvements are needed to make the route safer such as reallocating road space, tightening priority junctions, providing better crossings, and potentially reducing traffic volumes.

Although there is a relatively good pedestrian and cycle bridge over Stefen Way and a short section of Staverton Road which is very low traffic, the rest of the route between Staverton and Stefen Way is very hostile for walking and cycling. There is currently no crossing of the A425 which is a National Speed Limit road and the existing footway is narrow, in a poor condition, and encroached by vegetation. This was evidenced by a resident from the Grange Estate who was waiting near the Stefen Way footbridge for a taxi who advised the team that she no longer walks to work at the hotel as the road is too dangerous.



DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



Conditions for cycling on Tavern Lane and in Daventry town centre generally are satisfactory with a 20mph zone covering the town centre and many signed cycle routes though traffic volumes are relatively high.



The roundabout has relatively tight geometry and zebras on two arms which help to keep speeds low



Warwick Street is relatively wide even with cars parked on both sides. It was observed that the parked cars had a traffic calming affect by narrowing the carriageway.



The area is relatively permeable for walking and cycling with a potential link to a quiet north-south route along West View and Castle Hill via this relatively wide ginnel.



The junction radii at the junctions of Warwick Street and Staverton Road with Western Avenue encourage high traffic speeds and create hostile conditions for cycling in the carriageway.



There is an existing Puffin crossing on Western Avenue which takes pedestrians away from the desire line and does not cater for cyclists.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



The approach to the subway under Yeomanry Way has good sight lines but there is no infrastructure to assist cyclists to turn right off Staverton Road and relatively high traffic flows were observed.



Unlike most subways in Daventry, sight lines on the other side of the subway are poor from the ramp which is likely to mean people avoid using it due to personal safety fears.



The entrance to the ramp on the southwest side of the subway is on a bend with the bollards placed too close together and the surface in poor condition which could lead to collisions or falls.



Staverton Road is relatively wide and straight which may encourage high vehicle speeds. However, the 20mph zone and priority pinch points with raised tables appear to work well with drivers generally giving way to pedestrians crossing.



The junction of Staverton Road and Thames Road is excessively wide even with painted hatching to visually narrow the junction. This is likely to encourage higher vehicle speeds and make it difficult for people walking and cycling to cross the road to the bridge.



The area at the bottom of the ramp is untidy and has the potential to bring pedestrians and cyclists into conflict. The uncontrolled pedestrian crossing is in poor condition and lacks tactile paving on the south side.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



There is a large lip at the bottom of the ramp which will make it inaccessible for wheel chair and mobility scooter users as well as some cyclists, particular disabled cyclists and people using non-standard cycles which tend to be heavier.



The pedestrian and cycle bridge over Stefen Way is of adequate width for the expected pedestrian and cycle flows and the ramps are of a gentle gradient though the parapets are likely to be below the required height. The bridge is fairly well maintained.



Staverton Road south of Stefen Way is quiet but in poor condition. There is currently construction work underway on the western side meaning there is a lot of construction traffic at present but in the long term this road will be suitable for walking and cycling.



Staverton Road south of Stefen Way is access only and a dead end making it suitable for walking and cycling in the carriageway



There is no crossing point on the A425 or dropped kerb on the desire line for pedestrians and cyclists.



There is a significant divergence between the footway (with dropped kerb) and the desire line on the old section of Staverton Road adjacent to the A425.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



The speed limit on the A425 varies between 50mph and the National Speed Limit. There is no verge between the footway and the carriageway and the footway is in very poor condition in places.



The access to the Staverton Park Hotel & Golf Club is very wide and the dropped kerbs are set well back from the desire line.



A horse rider was observed struggling to use this path south of the hotel due to the overhanging trees which reduce the effective width of the path



At the junction with Daventry Road, the path diverges from the road, emerging on Daventry Road well away from the junction which helps support a safe transition to the carriageway. However, the path is narrow, bumpy and overgrown.



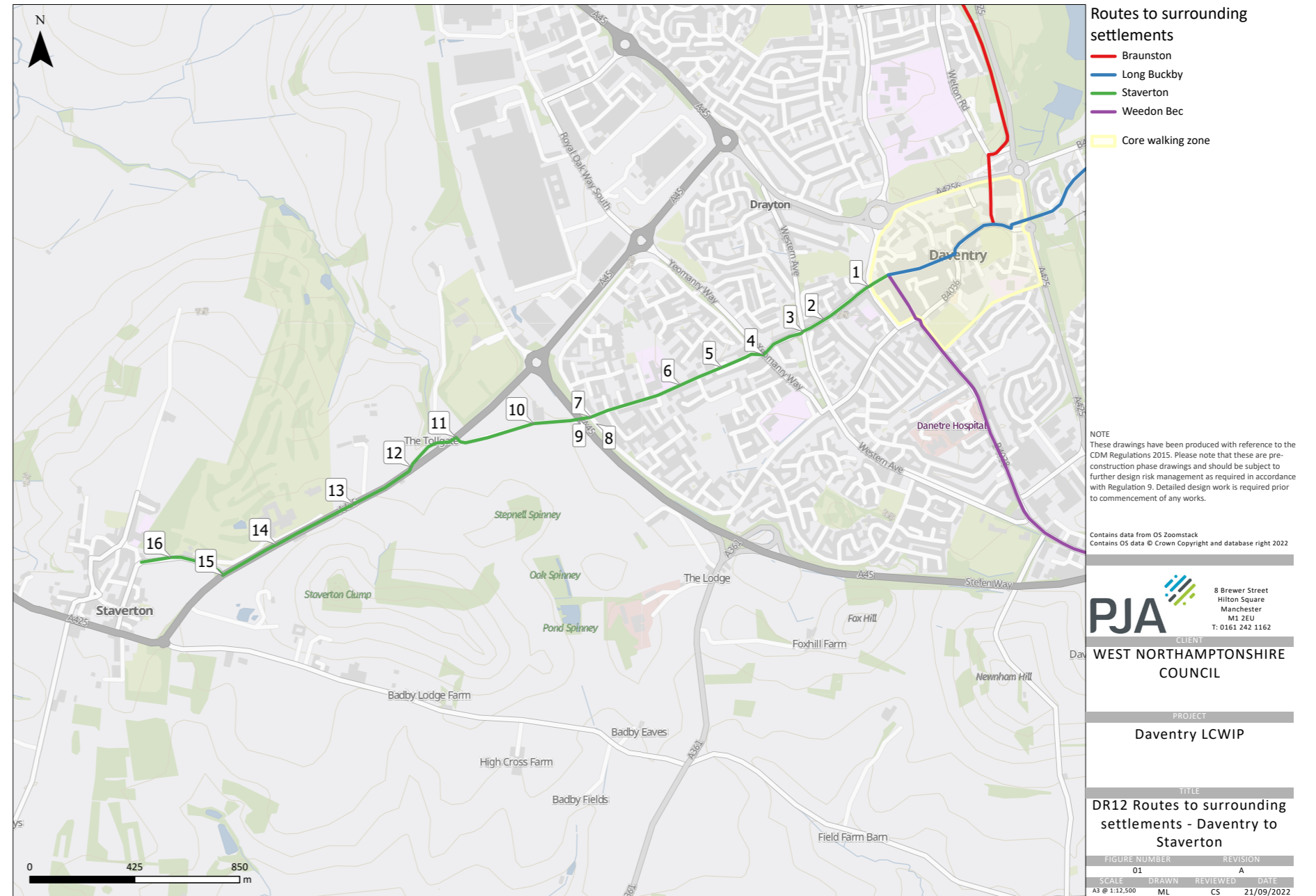
Daventry Road is very quiet but is a National Speed Limit road until just east of Glebe Lane meaning it is currently unsuitable for cycling in the carriageway.



Streets within Staverton village are quiet and low speed; speeds were observed to be well below the 30mph limit.

DESIGN RECOMMENDATIONS

1. Add zebra crossings to more arms to further slow traffic at the roundabout.
2. Consider either providing a 3m bi-directional cycle track on Warwick Street and Staverton Road between St James Street and Yeomanry Way (with some loss of on-street car parking on one side of the road) or installing bus gates (e.g. at the junctions of Western Avenue) to provide a low traffic walking and cycling route into the town centre, with through traffic diverted to Leamington Way and Badby Road.
3. Tighten up the priority junctions of Warwick St/Western Ave and Staverton Rd/Western Ave. If providing bus gates, it should be possible to tighten the junctions sufficiently to relocate the existing signalised crossing to be directly on the desire line and upgrade it to a 'Sparrow' crossing (signalised parallel crossing) to cater for pedestrians and cyclists.
4. Tighten the priority junction of Staverton Rd/Yeomanry Way and install a Sparrow crossing so that pedestrians and cyclists can avoid using the subway. Consider infilling the subway so that the crossing can be provided on the desire line. Provide a raised table on Staverton Road linking to the new Sparrow crossing to enable cyclists to transition to and from the carriageway. Relocate this away from the bend if possible.
5. Install additional traffic calming and extend the 20mph zone, ideally across all residential streets in Daventry.
6. Consider introducing a point closure on Staverton Road outside The Grange School to minimise traffic flows along Staverton Road and in the vicinity of the school.



DAVENTRY LCWIP - DESIGN RECOMMENDATIONS

7. Tighten the junction of Staverton Rd/Tyne Road by building out the kerb line and provide a raised table to slow turning vehicles.
8. Install a bus gate on Tyne Road immediately to the east of Staverton Road to reduce traffic on the Grange Estate and make it easier for pedestrians and cyclists to cross Tyne Road to reach the pedestrian and cycle bridge over Stefen Way.
9. The Malabar Farm development under construction immediately south of Stefen Way will deliver improvements to the existing pedestrian/cycle bridge (including raising the parapet heights) as well as a new signalised crossing of Stefen Way a little further east. It is recommended that the landing point on Tyne Road is tidied up including widening the footway, providing a flush ramp, tactile paving at the uncontrolled crossing and removing unnecessary guardrail as part of the improvements. It should be designed so that cyclists can transition directly from Staverton Road to the ramp. It is assumed that the northern end of Staverton Road (south of Stefen Way) will be resurfaced once construction is complete. It is recommended that a shared use footway/cycleway is provided between the proposed signalised crossing and Staverton Road to ensure the route to Staverton is as direct as possible. See drawings of the approved designs overleaf.
10. Resurface the northern end of Staverton Road (south of Stefen Way) once construction is complete.
11. Provide a crossing on the A425, ideally on the desire line between the two sections of Staverton Road. The A425 is currently national speed limit (60mph) which means Local Transport Note 1/20 requires any crossing to be grade separated. It is assumed that the speed limit will be reduced to 40mph between Badby Lane and Stefen Way as part of the Malabar Farm housing development which will deliver a new roundabout on the A425 to the south of Staverton Road. It is proposed that a signalised crossing (e.g. a Toucan or Pegasus) is provided to the north of the roundabout. The crossing should be linked to the carriageway on Staverton Road on both sides via a section of shared use footway/cycleway and a flush kerb.
12. Provide a flush kerb on the pedestrian and cycle desire line from Staverton Road to the footway on the northwest side of the A425.
13. Resurface and widen the footway along the A425 between the proposed crossing immediately south of the A425/Stefen Way Roundabout and Daventry Road in Staverton to a minimum of 2.5m to create a 2m bi-directional cycle track with a 0.5m buffer to the carriageway (this could be a simple white line or different surface material/colour). This should be designed to meet the needs of cycle traffic while also catering for low numbers of pedestrians and horse riders who should be allowed to use the cycle track. Cut back vegetation and crown lift trees along the route to give clearance for horse riders and ensure all users enjoy the full effective width.
14. Tighten the access to the Staverton Park Hotel & Golf Club in line with the reduced speed limit of 40mph so that the cycle track can have priority. It is recommended this is provided as a full set back with marked priority using give way markings, a raised table and coloured surfacing to highlight the crossing and slow vehicles as much as possible.
15. Widen and resurface the existing path that cuts the corner between the A425 and Daventry Road and provide a flush kerb to enable cyclists and horse riders to transition to and from the carriageway.
16. Introduce a 20mph speed limit on Daventry Road (but ideally a 20mph zone across Staverton) to enable cyclists (and horse riders) to safely share the carriageway with motor vehicles.

MALABAR FARM DRAWINGS



Approved plans for Malabar Form show a proposed signalised crossing (assumed to be a Toucan) on the A425 just to the south of the A425/Steven Way roundabout.



The Malabar Form scheme includes proposals to improve the existing ped/cycle bridge over Steven Way, a new signalised crossing on Steven Way and a new roundabout on the A425 south of Steven Road.

BEST PRACTICE



Bus gates create quiet routes for cycling in the carriageway while maintaining access for buses.



Signalised parallel crossings (Sparrow crossings) maintain separation between pedestrians and cyclists at crossing points to minimise conflict.



Point closures help improve conditions for walking and cycling in residential areas by reducing traffic volumes and speeds and also create space for things like street trees, rain gardens, cycle parking and even play areas.



Tightening priority junctions and installing raised tables improves safety for pedestrians and cyclists by reducing crossing distances and vehicle speeds.



Where there is the potential for a crossing to be used by horse riders as well as pedestrians and cyclists, a Pegasus crossing should be considered to cater for all users.



On rural roads where pedestrian and cycle flows are very low, it is often appropriate to provide a two-way cycle track on one side of the road that pedestrians (and horse riders) are allowed to use. Priority over side roads should be provided wherever safe to do so.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



Where a two way cycle track crosses a side road, it should normally have a full set back (5 metres) with marked priority over motor vehicles using give way markings.



In town and village centres it is often appropriate to implement a town or village wide 20mph speed limit to prioritise pedestrians and cyclists over motor vehicles.

LTN1/20 review

As set out in LTN1/20:

'Although there may be fewer cyclists and pedestrians in rural areas, the same requirement for separation from fast moving motor vehicles applies. A well-constructed shared use facility designed to meet the needs of cycle traffic - including its width, alignment and treatment at side roads and other junctions - may be adequate where pedestrian numbers are very low.

As per tables 5-2 and 6-1 (see adjacent) in LTN1/20 , the absolute minimum width required for a two-way cycle track would be 2.0m, with an absolute minimum horizontal separation of 0.5m, requiring a width of 2.5m in total.

In accordance with Table 10-2 (see adjacent), traffic speeds and volumes on Staverton Road require signalised crossing points for cyclists as a minimum in order for the route to be suitable for all users.

Table 5-2: Cycle lane and track widths

Cycle Route Type	Direction	Peak hour cycle flow (either one way or two-way depending on cycle route type)	Desirable minimum width* (m)	Absolute minimum at constraints (m)
Protected space for cycling (including light segregation, stepped cycle track, kerbed cycle track)	1 way	<200	2.0	1.5
		200-800	2.2	2.0
		>800	2.5	2.0
	2 way	<300	3.0	2.0
		>300-1000	3.0	2.5
		>1000	4.0	3.0
Cycle lane	1 way	All – cyclists able to use carriageway to overtake	2.0	1.5

*based on a saturation flow of 1 cyclist per second per metre of space. For user comfort a lower density is generally desirable.

Table 10-2: Crossing design suitability

Speed Limit	Total traffic flow to be crossed (pcu)	Maximum number of lanes to be crossed in one movement	Uncontrolled	Cycle Priority	Parallel	Signal	Grade separated
≥ 60mph	Any	Any	Not suitable	Not suitable	Not suitable	Not suitable	Not suitable
40 mph and 50 mph	> 10000	Any	Not suitable	Not suitable	Not suitable	Not suitable	Not suitable
	6000 to 10000	2 or more	Not suitable	Not suitable	Not suitable	Not suitable	Not suitable
	0-6000	2	Not suitable	Not suitable	Not suitable	Not suitable	Not suitable
	0-10000	1	Not suitable	Not suitable	Not suitable	Not suitable	Not suitable
≤ 30mph	> 8000	> 2	Not suitable	Not suitable	Not suitable	Not suitable	Not suitable
	> 8000	2	Not suitable	Not suitable	Not suitable	Not suitable	Not suitable
	4000-8000	2	Not suitable	Not suitable	Not suitable	Not suitable	Not suitable
	0-4000	2	Not suitable	Not suitable	Not suitable	Not suitable	Not suitable
	0-4000	1	Not suitable	Not suitable	Not suitable	Not suitable	Not suitable

- Provision suitable for most people
 - Provision not suitable for all people and will exclude some potential users and/or have safety concerns
 - Provision suitable for few people and will exclude most potential users and/or have safety concerns
- Notes:
1. If the actual 85th percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
 2. The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow

Table 6-1: Minimum recommended horizontal separation between carriageway and cycle tracks*

Speed limit (mph)	Desirable minimum horizontal separation (m)	Absolute minimum horizontal separation (m)
30	0.5	0
40	1.0	0.5
50	2.0	1.5
60	2.5	2.0
70	3.5	3.0

*Separation strip should be at least 0.5m alongside kerbside parking and 1.5m where wheelchair access is required.

3 LONG BUCKBY

SUMMARY OF CURRENT CONDITIONS FOR CYCLING

Long Buckby Station is approximately 4.7 miles from Daventry town centre while Long Buckby itself is 5.4 miles away. While this is slightly beyond the upper limit normally considered for cycling, Long Buckby Station is the closest train station to Daventry so it is likely that some people will consider cycling if a safe route is provided, particularly as Daventry extends eastwards through new development.

The most direct route between Daventry and Long Buckby is along B4036 Long Buckby Road and Three Bridges Road. Long Buckby Road is currently National Speed Limit and has no cycling infrastructure or footway and no crossing facilities over the fast and busy A5. There are similar conditions on Three Bridges Road although the speed limit is reduced to 30mph through Long Buckby Wharf. Three Bridges Road is constrained by a number of structures including the railway bridge at Long Buckby Wharf (which is a priority pinch point), the M1 bridge and a number of parapets for watercourses that run under the road.

Proposals for new residential-led development at Daventry North East to the east of Daventry Country Park will provide a shared use footway/cycleway through the new development between Eastern Way and the A5 and will introduce a roundabout and crossing at the A5. It will also provide a link into Daventry Country Park from the east.

Long Buckby Station has 90 car parking spaces which cost £690 per annum to use. There is also a small number of covered cycle stands at the station. As part of providing a cycle route to Long Buckby, the quantity and quality of cycle parking at the station should be reviewed.

Key considerations for walking and cycling infrastructure provided as part of Daventry North East are provided overleaf.



DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



High Street is closed to traffic two days a week on market days. When open, it was observed to be relatively busy.



There are narrow painted cycle lanes on Abbey Street which was observed to have relatively high traffic flows.



The subway between Abbey Street and Norton Road under the A425 is well maintained and was observed to be well used.



There are good traffic-free links from Norton Road connecting north to Daventry Country Park and south to Danetre and Southbrook Learning Village



Barriers on the cycle track adjacent to Eastern Way make it difficult for people cycling or using wheelchairs or mobility scooters to access the dropped kerb.



The existing cycle track adjacent to Eastern Way is in good condition but is narrow for shared use. A lack of signage means it is unclear whether the route is intended to be shared use or not.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



Long Buckby Road is currently National Speed Limit and has no footways or cycling infrastructure.



The junction of Long Buckby Road, the A5 and Three Bridges Road is currently very hostile with no crossing facilities for pedestrians and cyclists.



The existing pinch point west of Long Buckby Wharf acts as an effective gateway feature to slow traffic on the approach to the village.



The road and footways are very narrow through Long Buckby Wharf



The railway bridge creates a pinch point which narrows the road down to one lane through the bridge.



The three Surney bridges on Three Bridges Road create pinch points where there is insufficient space to provide protected space for cycling immediately adjacent to the carriageway.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



The railway bridge at Long Buckby Station creates another pinch point.



There is significant space within the highway boundary along Station Road between Long Buckby Station and South Close but echelon parking is very space hungry and often has a poor safety record due to the need for drivers to reverse into the road.



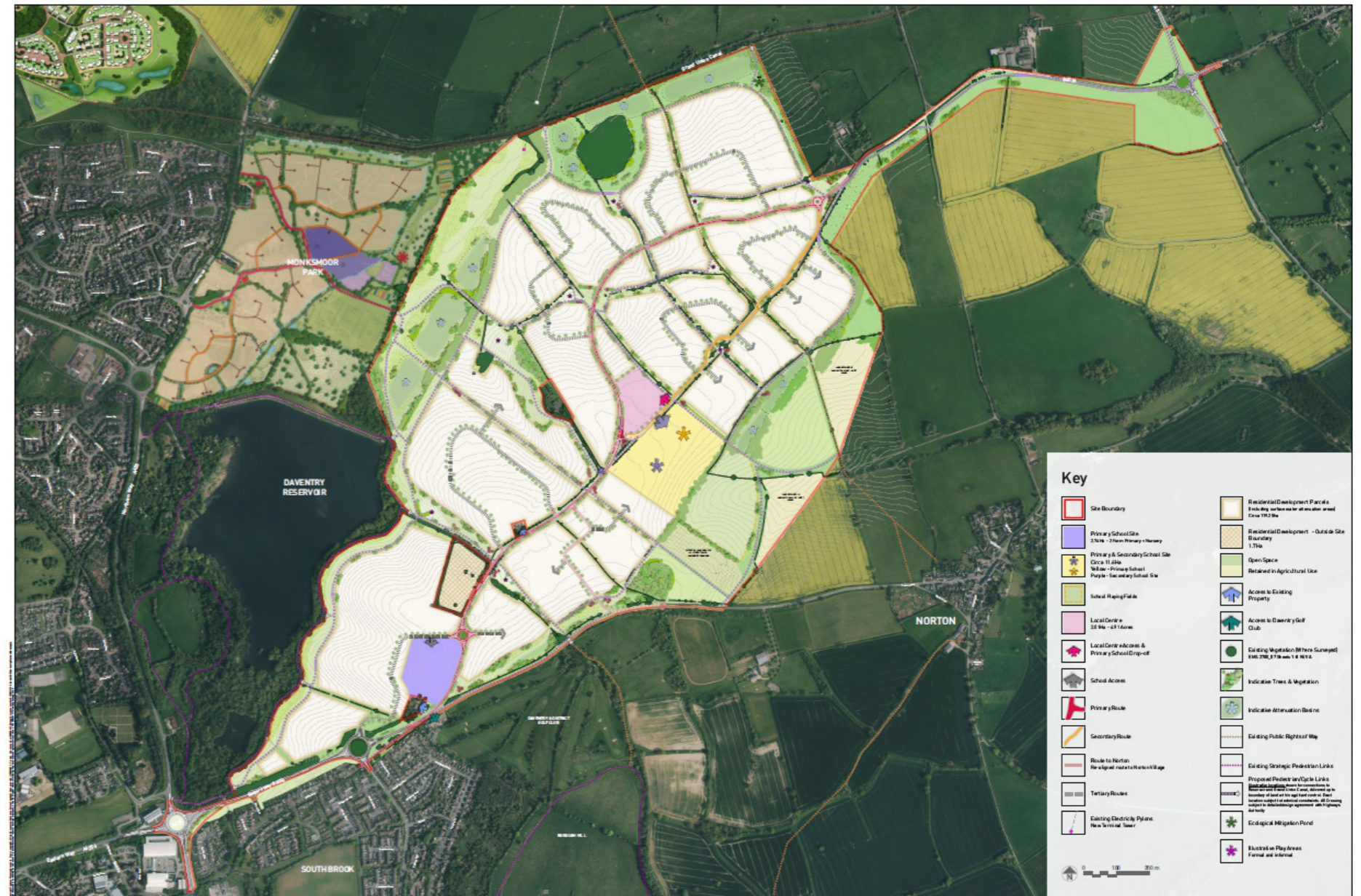
Some priority junctions along Station Road have very wide radii, creating long crossing distances for pedestrians and increasing the risk of left and right hooks for cyclists in the carriageway from turning drivers.



There are several controlled crossings along Station Road which help calm traffic and civilise the road through Long Buckby.

Daventry North East walking and cycling considerations

1. The proposed traffic-free pedestrian/cycle links to Monksmoor Park and Daventry Country Park are welcomed. These should be delivered in line with Chapter 8 of LTN1/20, considering separation of pedestrians and cyclists, widths, lighting and surfacing. Consideration should also be given to natural surveillance on these routes and well as how they cross main roads. Improvements to routes within Daventry Country Park and Monksmoor Park may also be required to maximise the utility of these links.
2. The route begins at the junction of Norton Road and Admirals Way which requires improvement including barrier removal and creating priority over Admirals Way.
3. The illustrative masterplan identifies a primary route through Daventry North East but it is unclear whether walking and cycling infrastructure will be provided here or to what standard. It is recommended that both are catered for here to ensure all residents of the new development are able to start and end journeys by foot or cycle and to ensure the route to Long Buckby is as direct as possible. Cycling infrastructure should be designed in line with Chapter 14 of LTN1/20.
4. The proposed secondary route through Daventry North East provides an opportunity to cater for cyclists on a lower traffic/speed road. It will be important to ensure through traffic cannot use this route, for example by installing a bus gate or point closure at one end.
5. Junctions pose a particular risk to pedestrians and cyclists and are where the majority of collisions occur. All roundabouts and other junctions delivered should be in accordance with the guidance in Chapter 10 of LTN1/20.
6. The introduction of a new roundabout at the junction of Long Buckby Road and the A5 provides an opportunity to provide a bridge or signalised crossing for pedestrians, cyclists and horse riders. Providing a suitable crossing here should be considered a priority.



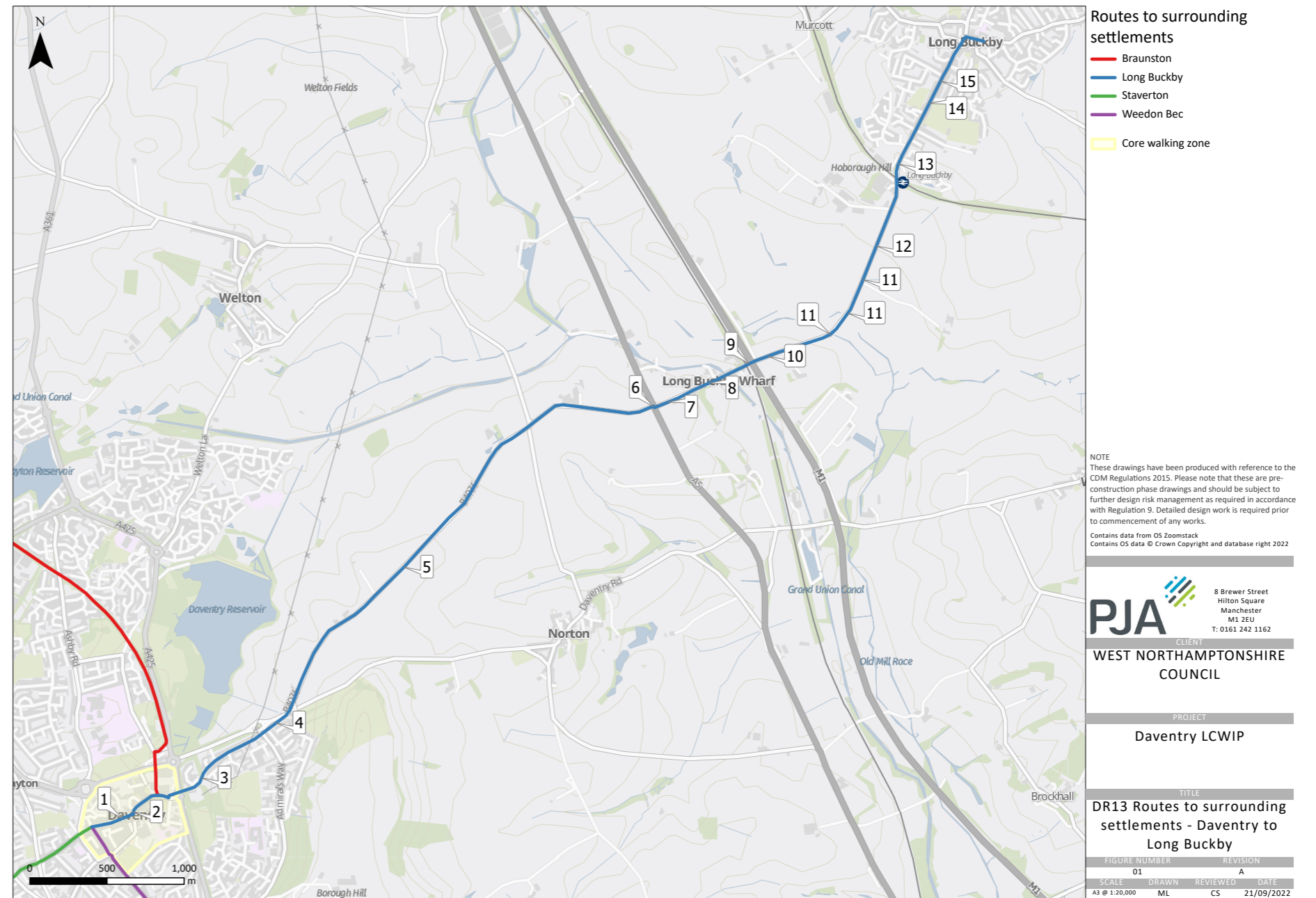
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Daventry North East, Northamptonshire - Illustrative Masterplan Pegasus
1 Drawn by: JF | Approved by: PS | Date: 02/02/22 | Scale: 1:5000 @ A1 | DPO: EM52700_002 Sheet No: 01 Rev: AB | Client: Barratt Developments & Davidsons Developments

Illustrative masterplan for Daventry North East. Source: Pegasus

DESIGN RECOMMENDATIONS

1. Close High Street to through traffic and allow access for loading only between certain times (and potentially a small amount of blue badge parking). Allow two-way cycling.
2. Introduce a bus gate on New Street close to Market Square to ensure through traffic uses the A425 and Eastern Way and reduce traffic flows on Abbey Street. Remove the substandard cycle lanes on Abbey Street and replace with cycle symbols placed centrally on the carriageway to act as wayfinding and remind drivers to look out for cyclists.
3. Add central cycle symbols on the carriageway along Norton Road, remove the chicane barrier and provide a controlled crossing such as a parallel crossing on Admirals Way.
4. Review and potentially widen the cycle track along the B4036 to tie into the new infrastructure proposals as part of the Daventry North East development.
5. Ensure LTN1/20 compliant cycling infrastructure is delivered through the Daventry North East development to help deliver a high quality, direct route to Daventry town centre and Long Buckby as well as supporting short walking and cycling journeys within Daventry North East.



6. Install a signalised crossing across the A5 as part of the new roundabout proposed as part of the new development. This should be designed to accommodate all potential users, i.e. pedestrians, cyclists and horse riders and should be factored into the roundabout design and speed limit on the A5 which is currently 50mph at this location. The illustrative masterplan currently shows the crossing on the southern side of the roundabout (represented by a white arrow) but a crossing on the northern side may be more appropriate based on the feasibility of providing a cycle route on Three Bridges Road.
7. Create a bi-directional cycle track on the north side of Three Bridges Road from the new crossing on the roundabout to the existing priority pinch point. The cycle track should be at least 2.5m with a 0.5m buffer to the road. This should be designed to meet the needs of cycle traffic while also catering for low numbers of pedestrians and horse riders who should be allowed to use the cycle track. Cut back vegetation and crown lift trees along the route to give clearance for horse riders and ensure all users enjoy the full effective width.
8. Transition cyclists to the carriageway at the existing priority pinch point west of Long Buckby Wharf. Introduce a 'Traffic in Villages' scheme in the village including reducing the speed limit to 20mph and introducing traffic calming and placemaking measures to slow traffic through the village to enable cyclists to share the carriageway with traffic.
9. Replace the priority pinch point with traffic signals at the railway and motorway bridge to enable shuttle working.
10. East of the motorway bridge, transition cyclists to a 2.5m bi-directional cycle track with a 0.5m buffer to the road on the southern side of Three Bridges Road and reduce the speed limit from National Speed Limit to 40mph.
11. Install structures adjacent to the three Surney Bridges to continue the cycle track along the route of Three Bridge Road beyond the existing parapets. This is likely to require land acquisition and significant structural work to stabilise embankments.
12. Continue the 2.5m bi-directional cycle track on the south east side of the carriageway to Long Buckby Station. A priority pinch point may be required at the railway bridge at Long Buckby Station to enable the existing footway to be widened.
13. Improve and extend the existing shared use footway/ cycleway on the eastern side of Station Road between Long Buckby Station and the zebra crossing south of South Close by reducing side road junction radii, providing priority over side roads and improving signage. Convert the echelon parking outside Long Buckby Rugby Club and Scout Hut to parallel bays to improve road safety and provide the space for the bi-directional cycle track.
14. Upgrade the zebra crossing to a parallel crossing and transition cyclists to the carriageway.
15. Reduce the speed limit to 20mph and mark cycle symbols centrally in the carriageway. Tighten priority junction radii and consider providing cycle-friendly traffic calming such as sinusoidal humps to reinforce the 20mph limit.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS

BEST PRACTICE



Closing high streets to through traffic and allowing contraflow cycling can make them more accessible and vibrant (Orford Road, Waltham Forest).



Bus gates create quiet routes for cycling in the carriageway while maintaining access for buses.



Design cues such as cycle symbols in the carriageway, raised tables and build outs can help slow traffic (Cardiff)



Build outs can provide a sense of arrival and space for planting while having a traffic calming affect



Cycle tracks that are designed for low flows of pedestrians and horse riders to share can provide a good level of service for all users on rural roads which have few or no active frontages or driveways. A buffer should be provided between the road and the shared use facility on roads with speeds over 30mph.



Where a two way cycle track crosses a side road, it should normally have a full set back (5 metres) with marked priority over motor vehicles using give way markings.

4 WEEDON BEC

SUMMARY OF CURRENT CONDITIONS FOR CYCLING

Weedon Bec is approximately 4.4 miles from Daventry town centre which equates to a 22 minute cycle ride. While this is further than Staverton and Braunston, it is still within the distance that many people would consider cycling if safe cycling infrastructure is provided.

While there is currently a direct and fast route for motor vehicles between Daventry and Weedon Bec along the A45, cycling infrastructure on London Road is substandard and there is just a narrow, poorly maintained footway along the A45 and no crossing facilities over two large roundabouts along the route.

Improvements are required along the length of route as well as at each end to provide safe conditions for cycling (and walking and horse riding). It is recommended that traffic management approaches are considered in Daventry and Weedon Bec to reduce traffic volumes and speeds while protected infrastructure is needed along the A45.



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DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



Barriers, seating and other street furniture clutter the bottom of Sheaf Street (which is part of NCN50) leading to conflict between pedestrians and cyclists on the footway on either side.



Sheaf Street is a wide pedestrianised street. A 'road' is marked in a different material which helps to subtly mark the cycle route through space and help keep cyclists away from doorways.



The mini roundabout at the junction of Oxford Street and London Road is awkward for cyclists to navigate and caters for higher traffic flows than is appropriate with high speeds observed in the evening.



The existing cycle lanes are narrow and end at pinch points such as roundabouts where protection is most needed.



Level differences between the footway and carriageway as well as constrained sections mean that it is not possible to provide protected cycling infrastructure along the route.



Wide radii at priority junctions along the route encourage high turning speeds, making it hazardous for pedestrians crossing side roads and for cyclists in the road.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS



Narrow painted advisory cycle lanes are inappropriate on routes with traffic volumes above 5,000 and speeds above 20mph.



Near the junction with Western Way there is much more space on the northern side of the carriageway to provide protected cycling infrastructure.



There are currently no crossing facilities – not even dropped kerbs – at the London Rd/A425/ Stefen Way roundabout.



London Road changes from 40mph to National Speed Limit east of Daventry. There are currently only uncontrolled crossing points at the A45/High Street roundabout.



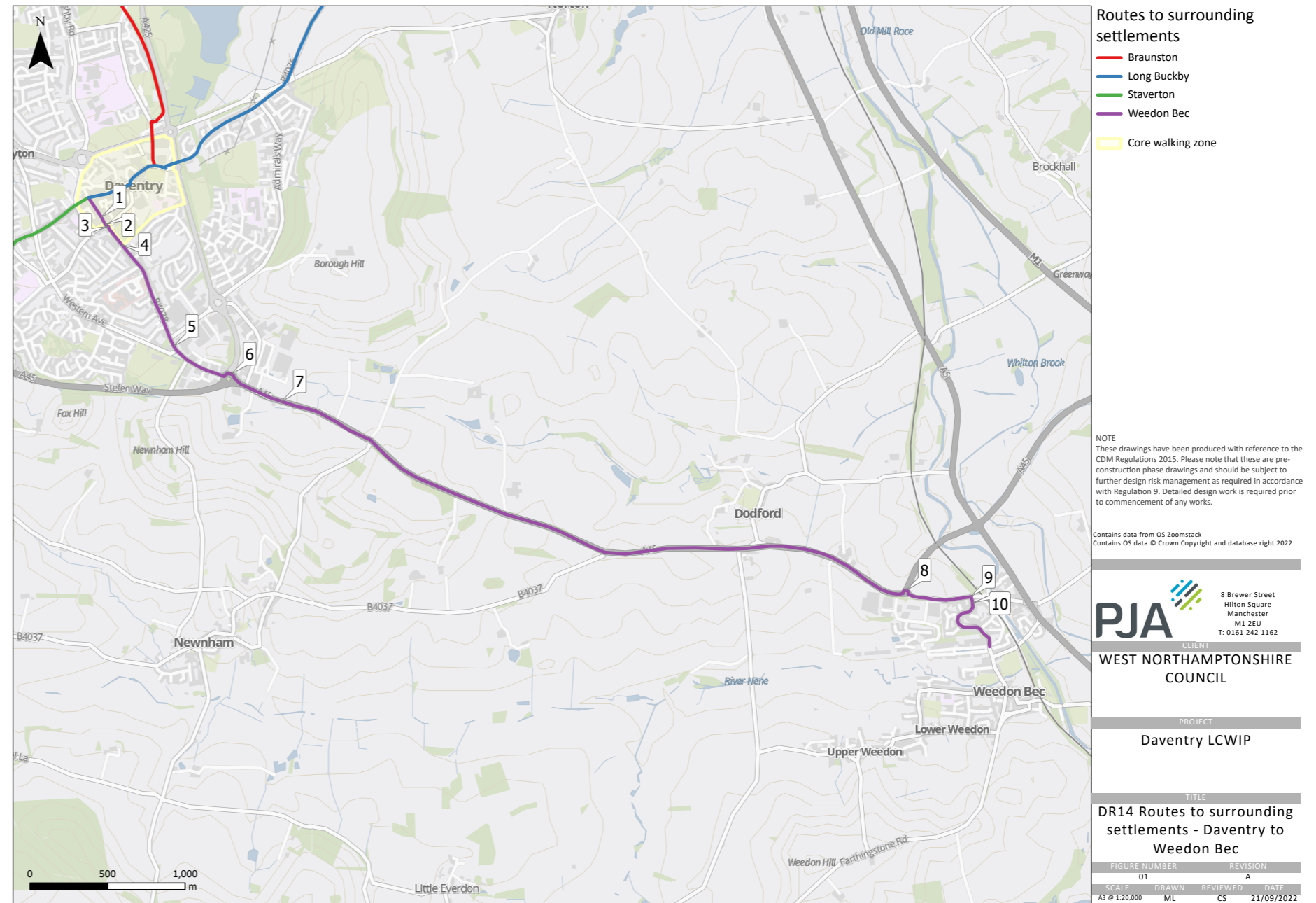
High Street is currently very wide with very wide central hatching while the priority junction with Harmans Way has very wide junction radii which encourage high turning speeds.



Harmans Way has relatively low traffic volumes but is a bus route.

DESIGN RECOMMENDATIONS

1. Declutter the bottom end of Sheaf Street so that cyclists can use the brick-paved part of Sheaf Street, keeping the edges clear for pedestrians.
2. Install a continuous footway across Sheaf Street at the junction with Oxford Street to priority pedestrians and slow vehicles turning in and out of Sheaf Street.
3. Provide zebra crossings on all arms of the Oxford Street/ New Street/London Road roundabout to prioritise pedestrians and slow vehicles in the town centre.
4. Install a bus gate near the junction of Park Leys to reduce traffic flows on this key cycle route and ensure through traffic uses the A425 or Western Avenue (London Road is too narrow for protected cycling infrastructure). Implement a 20mph speed limit and remove the substandard painted cycle lanes and install build outs with planting to create pinch points to slow traffic. Tighten up priority junctions along the route and provide cycle symbols centrally on the carriageway to act as wayfinding and remind drivers to look out for cyclists.
5. Transition cyclists from carriageway and provide a bi-directional cycle track on the north side of the road to the north of Western Avenue. The cycle track should be at least 2.5m with a 0.5m buffer to the road. This should be designed to meet the needs of cycle traffic while also catering for low numbers of pedestrians and horse riders who should be allowed to use the cycle track. Cut back vegetation and crown lift trees along the route to give clearance for horse riders and ensure all users enjoy the full effective width.



DAVENTRY LCWIP - DESIGN RECOMMENDATIONS

6. Install a signalised crossing (Sparrow, Toucan or Pegasus) on the northern arm of the A425/B4028 London Road/A45 Stefen Way roundabout.
7. Continue the bi-directional cycle track along the north side of London Road to Grand Union Way in Weedon Bec. Beyond High March flows of pedestrians, cyclists and horse riders will be lower and it may be appropriate to reduce the width of the cycle track to 2m with a 0.5 buffer to the carriageway (if the speed limit can be reduced from 60mph to 40mph) which could be a white line or different surface material/colour.

Again, this should be designed to meet the needs of cycle traffic while also catering for low numbers of pedestrians and horse riders who should be allowed to use the cycle track. Cut back vegetation and crown lift trees along the route to give clearance for horse riders and ensure all users enjoy the full effective width. If the National Speed Limit is retained on the A45 between Daventry and Weedon Bec, an extra 1.5m buffer will be required, meaning that the overall minimum width required to create a safe route is 4m. The cycle route should not have priority of side roads for safety reasons if the National Speed Limit is retained.

8. Install a signalised crossing (Sparrow, Toucan or Pegasus) on the northern arm of the A45/High Street roundabout.
9. Consider installing a bus gate or similar measure on High Street at the junction of Harmans Way to ensure through traffic uses the bypass and to reduce traffic flows on High Street (this could also help deliver a future link to Flore for which there is strong political support). Provide a controlled crossing, e.g. parallel or Sparrow crossing close to the junction of High Street and Harmans Way and a short section of cycle track or shared use footway/

cycleway to link to Windsor Close to enable cyclists to transition to the carriageway.

10. Reduce the speed limit to 20mph and consider providing cycle symbols centrally on the carriageway to act as wayfinding and remind drivers to look out for cyclists.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS

BEST PRACTICE



Bus gates create quiet routes for cycling in the carriageway while maintaining access for buses.



Continuous footways provide priority for pedestrians over cars in areas of high footfall (Cardiff)



Design cues such as cycle symbols in the carriageway, raised tables and build outs can help slow traffic (Cardiff)



Build outs can provide a sense of arrival and space for planting while having a traffic calming affect



Cycle tracks that are designed for low flows of pedestrians and horse riders to share can provide a good level of service for all users on rural roads which have few or no active frontages or driveways. A buffer should be provided between the road and the shared use facility on roads with speeds over 30mph.



Signalised parallel crossings (Sparrow crossings) maintain separation between pedestrians and cyclists at crossing points to minimise conflict.

5. ADDITIONAL MEASURES

CYCLE PARKING

The availability of cycle parking facilities at either end of a trip will heavily influence the decision to travel by bicycle. The absence of secure parking will deter some people or make cycling impossible. Cyclists that experience repeated cycle theft will sometimes stop cycling altogether.

Cycle parking is integral to the cycle network and can be introduced relatively quickly. Cycle parking is important for integration with public transport for multi-modal journeys. As with other cycle infrastructure, cycle parking and access to it should be safe, direct, comfortable, coherent, and attractive. A proportion of cycle parking should be accessible to all with some provision for larger cycles as well as bicycles. Design of cycle stands should take into account at what height different types of bikes need to be secured.

SIGNAGE AND WAYFINDING

Legible and coherent design can help minimise the need for signs. However, some signs are required to help enforce traffic laws, and direction signs are needed to ensure people can understand and follow the route. Signs must be designed and positioned carefully to ensure the signs themselves do not create confusion or undue street clutter. An effective wayfinding strategy will result in users feeling like they are being guided along a route and removes the need for cyclists to stop to consult maps or phones. Direction signage should be provided at every decision point and sometimes in between for reassurance. Arrow markings on the carriageway can also assist with wayfinding at transition points.

TRAFFIC IN VILLAGES

Traffic in Villages was prepared as a toolkit to help rural councils in England and local groups understand the core principles for reducing speed, improving safety, and retaining local distinctiveness. It has particular focus using physiological traffic calming measures within the public realm to reduce the impact of vehicle traffic and promote local distinctiveness in the design of villages.

CROSSINGS AND JUNCTIONS

Crossings enable cyclists to cross the road at right angles to the motor traffic flow - they are essentially junctions that are only accessible to cycle and pedestrian traffic. They may be used to connect off-carriageway cycle routes across a major road or to enable connections with quieter street networks via cycle-only access points.

See overleaf for precedent images of these types of interventions.

DAVENTRY LCWIP - DESIGN RECOMMENDATIONS

BEST PRACTICE : CYCLE PARKING



Covered, secure cycle parking should be provided at key destinations such as town centres, schools and employment areas



In town centres, cycle parking should be provided at regular intervals. Where possible, cycle parking should be placed in the carriageway rather than footways



Bespoke cycle parking can contribute to placemaking and provide consistency



Covered, secure cycle parking should be provided at key destinations such as town centres, schools and employment areas



Cycle parking at bus stops can help people cycle as part of longer journeys



Bespoke cycle parking can contribute to placemaking and provide consistency

5. ADDITIONAL MEASURES

BEST PRACTICE : SIGNAGE AND WAYFINDING



Considerate cycling should be encouraged on all shared use routes rather than installing chicanes, barriers or banning cycling



Lighting can help with wayfinding as well as improving safety and personal security



Natural play equipment such as large boulders next to traffic free routes can add interest for children and provide resting places



Bespoke signage can reflect the heritage of a route (e.g. using timber sleepers on former railway lines) and provide consistency



Simple, easy to read signage is important for navigating routes on rural lanes. The approach taken on rural networks in Netherlands and other countries where cycle routes are connected by numbers may be appropriate in Daventry, particularly as many of the utility routes overlap with leisure routes



BEST PRACTICE SIGNAGE AND WAYFINDING



Cycle symbols and arrows in the carriageway can help with wayfinding

PRECEDENT IMAGERY: TRAFFIC IN VILLAGES



Implied footways with passing places for cars provide protected space for walking and can significantly reduce speeds as well as flows by making routes less attractive for vehicles



Gateway features, signage and central medians can all contribute to creating a sense of place and reduce traffic speeds to create places where pedestrians and cyclists have more priority



Community artwork can help brighten routes and create a sense of ownership which can encourage use and discourage antisocial behaviour



Simple pinch points can help slow traffic without detracting from the rural nature of settlements in Daventry



Simple pinch points can help slow traffic without detracting from the rural nature of settlements in Daventry

BEST PRACTICE : TRAFFIC IN VILLAGES



Removing the centre line and visually narrowing the carriageway can help calm traffic and highlight the change in character of the route

BEST PRACTICE : TRAFFIC CALMING



Changes to surfacing and 'implied' roundabouts and zebra crossings can help calm traffic

PRECEDENT IMAGERY: CROSSINGS AND JUNCTIONS



Modal filters can be used to close off arms of junctions to vehicles whilst maintaining access for people walking, wheeling or cycling



Use of different materials can mark the entrance to a place, highlighting to drivers that they need to adjust their behaviour and will have to interact with other road users



Where parking or loading is required, inset parking bays help to narrow the carriageway and provide wider footways when not in use



On routes with low traffic speeds and flows, implied or courtesy crossings may be appropriate to provide crossing places between controlled crossings

BEST PRACTICE : CROSSINGS AND JUNCTIONS



On routes with low traffic speeds and flows, implied or courtesy crossings may be appropriate to provide crossing places between controlled crossings



On cycle routes, it is normally best to separate pedestrians and cyclists at crossings through the provision of a parallel zebra or separate cycle signals, to reduce conflict. Cycle crossings should normally be straight across even where the pedestrian crossing needs to be staggered



For key cycle routes it might be appropriate to close one or more arms of a junction to general traffic to simplify the junction and provide protected space for cycling



On routes with low traffic speeds and flows, implied or courtesy crossings may be appropriate to provide crossing places between controlled crossings



On cycle routes, it is normally best to separate pedestrians and cyclists at crossings through the provision of a parallel zebra or separate cycle signals, to reduce conflict. Cycle crossings should normally be straight across even where the pedestrian crossing needs to be staggered



Filter in turn junctions provide a good alternative to mini roundabouts and create low speed environments suitable for providing pedestrian crossings

