

## Briefing Note

# Walking, Cycling and Other Issues in Station Road and at the Junction of Station Road-Tilmore Road-Chapel Street

### Foreword

This is the fourth version of the document which was prepared in response to comments received on the previous version. The analysis and conclusions have not changed materially, but the text has been clarified in several places. A map has been added on Page 6 to show the location of the Station Road-Tilmore Road-Chapel Street junction within Petersfield and to illustrate some of the issues which are discussed in the text below.

### 1 Introduction

The Petersfield Strategy Group (PSG) has prepared a list of potential schemes which are to be given priority in the context of the Petersfield Place-making Action Plan. This note has been written to support and inform this Action Plan in regard to cycling and walking issues. It describes some of the problems encountered by pedestrians and cycle riders when moving around Petersfield and identifies some potential solutions. The intended readership are the officers and councillors who are contributing to the Petersfield Operational Group (POG) and the PSG, together with transport professionals who will be responsible for the detailed design of the schemes as they move forward to the design phase.

This note has been prepared by Keith Hopper (Chartered Highway Engineer (retired)) and Gethin Morgan-Owen (cyclist and active travel campaigner), both of whom are residents of Petersfield and who take an active interest in transport issues in the Town. They have extensive experience in the design and every-day use of urban streets and have been observing the local problems and difficulties for some years.

The statements made in this document are intended to assist the planning and design process by outlining current problems and making suggestions for improvements which will be given full consideration by the designers. They in turn will use their skills to refine the suggestions and find alternative solutions. It is hoped that innovative solutions will be considered for the low speed areas of the town core and that approaches will be made to the Department for Transport (Traffic Signs and Street Design Policy) for discussion on new features / signing and for authorization for their use in Petersfield, eg new types of crossing for pedestrians in 20mph zones. This seems especially relevant as the current town centre layout was designed in the early 1990's as part of the By-Pass Demonstration Project, which had the full backing and support of the DfT.

The focus of this note is Station Road and in particular the junction with Tilmore Road and Chapel Street, which was placed on a priority list prepared by the PSG. The background is described below in vehicle and pedestrian movement terms. This is followed by some sections which describe the problems, explore possible solutions and draw early conclusions. The Appendix provides traffic statistics, more detail about cycling issues and a summary of recent appraisals of this junction.

### 2 Background

Station Road is one of three main east-west routes for traffic through Petersfield, the most heavily used being the dual carriageway link road to the A3 by-pass classified as the A272. Station Road is central and direct but straddles a level crossing adjacent to the Railway Station, whilst the southern route via Hylton Road, Swan Street and Frenchman's Road passes under a low railway bridge, ruling out its use by larger vehicles. There is also a central route via the High Street but this is the main shopping street and requires minimal traffic flows for the benefit of pedestrians (the Neighbourhood Plan identified the need to reduce traffic speed and flows in the High Street, Chapel Street and Lavant Street in order to give priority to pedestrians and cyclists in a shared space environment). Station Road is therefore an important east-west route but is not heavily trafficked in terms of vehicles alone and copes with the delays from the level crossing, except in peak hours. From a cycling point of view however it is classified as "heavy traffic flow" due to cyclist's different needs and does not encourage the use of cycling as it is now.

The current emphasis on Active Travel puts the spotlight on walking and cycling and there are serious highway deficiencies both at the junction with Tilmore Road and along quite a length of Station Road. Tilmore Road itself is a major access route into town for residents living to the north of the railway line and is therefore an important and well used road. Tilmore Road and Chapel Street are on the National Cycling Network (NCN)

Route 22 and on the Shipwright's Way. This junction is therefore an important crossing point on Station Road for cyclists.

The traffic volume and speed on some of the relevant roads are quantified in Section A.2 in the Appendix.

### **3 Assessment of Problems and Some Solutions**

The principal problem with this junction is the speed of traffic on Station Road, combined with poor visibility for pedestrians, cyclists and drivers emerging from the side roads, due to the bend in the road and the closeness of boundary walls. There are times when traffic is stationary in both directions on Station Road, due to the level crossing barriers being down (8 trains per hour during the peaks), which clearly assists the movement of pedestrians and cyclists in particular at those times. When the barriers are raised and traffic flows, the lack of visibility is a real concern for all road users.

The speed of traffic in Station Road has been measured as 29.4mph (85<sup>th</sup> percentile) and is clearly instrumental in giving a poor quality of life for people walking (with sub-standard narrow footways) or cycling along and across Station Road. This is the case both at the Junction and along the road for hundreds of metres to the east and west. Further to the east there are puffin crossings in place to assist pedestrians near Sandringham Road and at the junction with Rams Hill / Tor Way, but commuters and schoolchildren in particular have great difficulty in crossing Station Road near to the Station. They regularly use the footway on the south side of Station Road which is only 0.5m wide and is clearly very dangerous.

The location of the Station is such that there is a lot of activity in the area by pedestrians, cyclists, buses and taxis and they all require special consideration. At the root of it all comes the need to reduce the speed of traffic on Station Road and ideally to start to change the attitudes of drivers. The number one priority therefore is to reduce the speed of traffic, not just at the junction with Tilmore Road but along the length of Station Road affected by station traffic and customers. The need for speed control commences at Windsor Road which is 100m to the east of the junction and continues for 400m to a point 300m to the west of Tilmore Road, just beyond the pedestrian crossing point at the Lidl supermarket / White Rose car showrooms.

Traffic calming features on their own would give limited improvement and would not lead to a change in attitude of drivers towards pedestrians and cyclists. However, the provision of a 20mph zone with stronger traffic calming features would change things, enabling cyclists to stay in lane and move at the speed of the traffic and allowing movements across the road to take place more easily and safely. In addition this 20mph zone could enable the road width to be narrowed and footways widened, but the main benefit would be in reducing the visual dominance of vehicles, and enhancing the status of pedestrians and cyclists. Any vertical traffic calming features would need to be bus friendly (eg 6m long plus 1:20 ramps) as is a commonly used standard. A formal crossing point is required on Station Road between Chapel Street and Charles Street. A number of pedestrian crossing points are required between the White Rose Garage and Windsor Road for destinations on the south side, which are the Railway Station, Tesco, Lidl and the Town Centre.

A reduction in traffic speed will assist cyclists on NCN22 / Shipwright's Way but ideally a central safe area is required in the middle of Station Road. The provision of some form of traffic control should be considered, ie a compact roundabout or signals but may not prove to be feasible. The junction of Chapel Street with Station Road is very wide at present and could offer opportunities for major change, but Tilmore Road is very narrow with limited options.

In considering any changes all roads should be assumed to be retained as two way, although pinch points could be considered in an extreme case. In that event Station Road should retain sufficient width for continuous two way movement of cars but HGV's could possibly have to give way. However this could be detrimental to bus services and should be considered very carefully.

There could be a possible ban on right turn movements into Station Approach except for buses and bicycles in an attempt to prevent vehicles being stationary on the Level Crossing.

#### **3.1 Key outcomes of the design:**

1. A reduction in traffic speeds on Station Road to a level that will encourage pedestrians and cyclists to feel safe using Tilmore Road and crossing Station Road.
2. A formal crossing point for pedestrians on Station Road to the west of Tilmore Road.
3. It should be easier and safer for pedestrians to cross over and move along Station Road.

4. It should be easier and safer for cyclists to come out of Tilmore Road and Chapel Street.
5. Improvements to the quality of life for pedestrians and cyclists using Station Road, thereby encouraging these modes of transport.
6. The very narrow footway on Station road to the south east of the Junction should be widened or closed.

### **3.2 Possible features to achieve the above:**

1. Traffic calming features on Station Road with / without a 20mph zone.
2. A formal pedestrian crossing on Station Road somewhere between Tilmore Road and Charles Street.
3. A number of informal crossings for pedestrians.
4. A reduction in width of the Chapel Street bell mouth to a single lane northbound.
5. A traffic island in the centre of Station Road at the Chapel Street junction.
6. Traffic signals at the Tilmore Road junction although very close to the level crossing.

### **3.3 Further opportunities to be considered:**

1. Reduction of the carriageway width to improve the footways and benefit pedestrians.
2. Provision of a speed table at the pedestrian crossing point between Lidl and Rose Car Showroom.
3. Widening of the marked footway where it crosses the tracks at the level crossing.
4. An opportunity to create a walking and cycling route from Station Road to Frenchmans Road via Station car park, see the LCWIP Ptr 47<sup>1</sup>.
5. An alternative alignment for NCN22/Shipwright's Way was recommended in the LCWIP, see Ptr13. This should be actively explored if effective improvements cannot be implemented at the Station Road, Tilmore Road and Chapel Street Junction.
6. If a 20mph zone is considered feasible, it could easily be linked to the existing town centre zone.
7. The railway bridge on Tilmore Road was identified as being dangerous for pedestrians in the Neighbourhood Plan.
8. Preventing stationary queuing vehicles on the level crossing in a very dangerous location.

## **4. Conclusions**

The traffic on Station Road dominates the area and this combined with the low standard of visibility results in delays and danger for everyone attempting to cross the road (including drivers on the side roads). The mere prospect of doing so in the peak hours is quite daunting, if not dangerous, especially for the more vulnerable ie pedestrians and cyclists, leading to a low quality of life and a strong disincentive to Active Travel.

In order to improve the Junction and ease the problems, traffic speeds need to be reduced, traffic control imposed at the Junction if possible and pedestrians given safe and easy crossing places with a right to cross. It is suggested that the optimum solution would be the construction of a 20mph zone with strong traffic calming measures from Windsor Road through to the crossing point between the Lidl supermarket and the White Rose Garage.

Other solutions are possible but they are unlikely to achieve a much improved status for pedestrians and cyclists which is the target for Active Travel.

The location of the level crossing so close to the junction is an important issue, due to the need to avoid having stationary queuing vehicles on the crossing. This occurs at present but can hopefully be improved.

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<sup>1</sup> EHDC, LCWIP (Local Cycling and Walking Infrastructure Plan) Technical Report V1.2, August 2020.

## Appendix

### Traffic Statistics, Cycling Issues and Other Appraisals

#### A.1 Introduction to This Appendix

This appendix provides detailed traffic statistics for the roads that converge at this junction. The cycling issues are described in greater detail in Section A.3. Section A.4 provides a summary of various other appraisals of this junction.

Various statistics about traffic flows and the like are quoted within the text below. It is likely that HCC hold more topical and comprehensive statistics that will assist any further investigations.

#### A.2 Traffic Speed and Volume Across the Station Road-Tilmore Road-Chapel Street Junction

In 2018, the traffic speed in Station Road was measured to be 29.4 mph (85<sup>th</sup> percentile)<sup>2</sup>. The speed limit is 30 mph. The traffic volumes are shown in Table 1.

Street/road	Vehicles per hour during the AM peak	Vehicles per day (weekdays)
Station Road - between Charles St & Chapel St	840 Source: 2018 Transport Study	10,060 Source: 2018 Transport Study
Chapel St - north end	150 Source: 2020 Junction Feasibility Report	1,500 Estimated
Tilmore Rd - south end	173 Source: 2020 Junction Feasibility Report	1,700 Estimated
Notes		
The figures indicate bi-directional flows. Where figures are labelled as estimates, the number of vehicles per day was assumed to be 10 times the AM peak figure.		

**Table 1: Traffic volumes on Chapel Street, Station Road, and Tilmore Road**

This traffic flow along Station Road is categorised as “heavy traffic flow” when assessed from a cycling point of view according to Appendix B of LTN 1/20<sup>3</sup>. The traffic flow along Chapel Street and Tilmore Road is categorised as “low traffic flow”.

#### A.3 Additional Cycling Issues at the Station Road-Tilmore Road-Chapel Street Junction

This assessment focuses on cycle movement across this junction from Tilmore Road to Chapel Street and vice versa because there is little cycle traffic along Station Road, as explained above.

Cycle riders encounter the following conditions when crossing this junction from Tilmore Road to Chapel Street:

- Movement through this junction requires crossing two lanes which have heavy traffic flows (>5,000 motor vehicles per day). At peak times, gaps in traffic only occur occasionally, unless the level crossing barriers are down.
- When exiting Tilmore Road, riders have poor visibility along Station Road, especially of traffic coming from the direction of the Station. With the traffic on Station Road moving briskly, riders must quickly mount their bicycles and sprint when they see an adequate gap in the lines of moving vehicles.
- The bend prevents eastbound drivers on Station Road having clear sight of traffic exiting Tilmore Road.

<sup>2</sup> HCC/Hampshire Services, Technical Transport Study for Petersfield Town, August 2018.

<sup>3</sup> DFT, Cycle Infrastructure Design, Local Transport Note 1/20, July 2020.

- When crossing this junction from Chapel Street to Tilmore Road, the visibility along Station Road is satisfactory, but cycle riders have to gather speed against a gradient and so additional time is required to cross.

With cycle movement in potential conflict with a heavy flow of motor traffic, the conditions are likely to give rise to the most common collision types, according to LTN 1/20 Appendix B (also see Table 10-2). Any misjudgement of the speed or intentions of a driver by a cyclist, could result in a collision with a motor vehicle moving at about 30 mph, with the potential for a serious injury being caused to a cyclist.

These conditions strongly deter cycling. Inexperienced and timid cyclists will feel uncomfortable, perhaps frightened, and so they will not cycle. Even experienced cyclists will be put-off. It is likely that some inexperienced cyclists, who have been directed to this junction by the signs installed by Hampshire County Council /Sustrans /EHDC, will be placed at risk of injury from a collision with a motor vehicle.

#### **A.4 Other Recent Appraisals of the Station Road-Tilmore Road-Chapel Street Junction**

The Petersfield Neighbourhood Plan identified a need for traffic improvements at the Station Road-Tilmore Road-Chapel Street Junction, see Table 9 and Map E3. The adjacent railway bridge on Tilmore Road was identified as being dangerous for pedestrians.

In 2019, the Petersfield Society's Report on Pedestrian Safety identified this junction as one of the most difficult in Town from the pedestrian perspective. Problems were described with poor sightlines together with missing and narrow footways.

EHDC's LCWIP (Local Cycling and Walking Infrastructure Plan) for East Hampshire did not cover pedestrian issues in urban areas. However this LCWIP identified that this junction was poor for cycle riders crossing in the southbound and northbound directions (see Ptr34). It identified that this junction is on both National Cycling Network Route 22 (NCN22) and on the Shipwright's Way route. The LCWIP recommended that an alternative route alignment should be found for both routes, see Ptr13. A potential alternative alignment was presented in Figure 5.4 of the LCWIP.

The HCC Junction Capacity Report<sup>4</sup> described missing footways and poor visibility when exiting Tilmore Road, together with substandard footways and a substandard pedestrian refuge. Regarding cycling, it was concluded that *"Whilst this junction is part of the National Cycling Network (NCN), environmental and land constraints prevent improvements specifically for people cycling."*

#### **A.5 The Potential for Cycling and Walking**

The current levels of walking and cycling are low in East Hampshire. Just 2% of journeys are made by cycling and 9% by walking, with a high level of car dependency at 80%<sup>5</sup>. For cycling, this pattern is consistent with the "Bikeability" appraisal in the LCWIP which found low levels of bikeability. Data on the distance of the journeys made suggests there is potential for a large increase in walking and cycling. The recent periods of lockdown due to Covid have resulted in large increases in walking for exercise and enjoyment, at the Heath in particular. The low levels of traffic have enabled social distancing to take place only through much "walking in the road" and there will be a strong need for current road space to be converted to pedestrian space in the long term. LTN 1/20 describes how London has seen growth following investments in cycling and walking, see Section 2.2. A core principal of LTN 1/20 is that cycling infrastructure should be designed for significant numbers of cyclists.

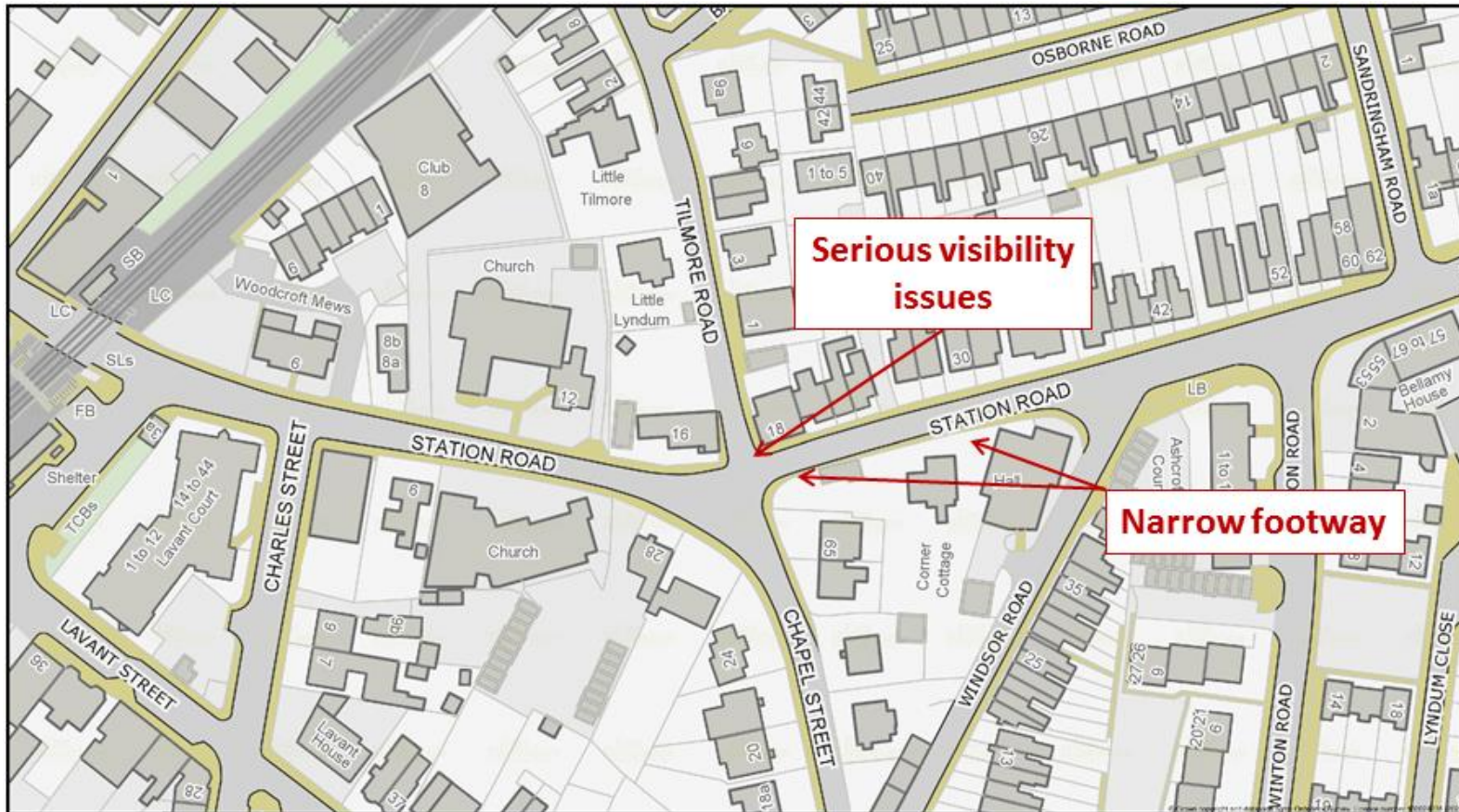
#### **Acknowledgement**

The Place-making Team at East Hampshire District Council commissioned this briefing note in order to ensure that local knowledge and experience of active travel issues was made available to the transport professionals of Hampshire County Council. The authors of this briefing note would also like to record their appreciation for the support and encouragement received from the many councillors and officers involved from all three levels of Local Government, as well as from the South Downs National Park Authority.

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<sup>4</sup> Hampshire County Council, Petersfield Town Centre Junction Capacity Report, 6/8/2020.

<sup>5</sup> EHDC LCWIP, Summary Report V1.2, August 2020.



**Station Road - Tilmore Road Junction**

N Scale: 1:1250

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