



Transport in Guildford Borough
Ideas for consideration

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Introduction

The Transport Group in the Guildford Society has looked at several the issues that impact Transport in Guildford. We have drawn together some of our thoughts for consideration. The covid pandemic has affected travel patterns and what the new normal will be is currently difficult to forecast. What is certain the transport system in Guildford will have to adapt to manage demand caused by housing Growth, demand for Active Travel (Cycling, Walking) and the need to 'green' the transport system and make it safer and less polluting.

Background

Guildford has evolved to be:

- A car-based town, with the notable exceptions of major commuter flows to London via the rail network.
- Bus network is hub and spoke and buses are slowed by limited bus lanes and congestion.
- Rail Services are in the main good but centred on Guildford Station with limited local stations – also not all lines have a 15 min service.
- Parking seen as an income source by local council and is not integrated into a transport strategy.
- Geographical Constraints make new transport corridors costly.
- Local country roads used for 'rat running' and local villages have inadequate public transport
- New Strategic Sites are in many cases Car Based

The Covid pandemic has altered travel patterns in the short term and may have a longer-term impacts as people may work at home more often or more locally.

Transport for the South East (TfSE) in its recent Strategy Study highlighted that

*Para 1.18 - In recent years, however, there has been a significant shift in thinking away from the **'predict and provide'** approach. There is substantial evidence to suggest that providing additional road capacity and addressing bottlenecks in the highway network has the effect of generating additional demand for the road network, thus eroding or even eliminating any expected reductions in traffic congestion. Furthermore, this approach, if followed in an unconstrained fashion, risks promoting urban sprawl, high dependency on car use, and significant degradation of the natural environment. In the long run, 'predict and provide' risks creating a transport network that is less efficient and damaging for the local communities and environment it passes through.*

*Para 1.19 - This transport strategy involves a shift towards a **'decide and provide'** approach to transport provision. This means actively choosing a preferred future, with preferred transport outcomes as opposed to responding to existing trends and forecasts.*

The Society believes that shifting Transport Strategy to a **decide and provide** model is preferable approach, this doesn't preclude A3 improvements.

The society below documents some of our ideas for Guildford Transport that we believe should be considered for the Town Centre Masterplan and the wider borough.

Factors to consider

1. The Future of Cars

Even accepting we can clean up cars by electrification/hydrogen/hybrids using sustainable sources, they still present challenges due to congestion, accidents, and pollution from brakes and tyres.

Cars have a large impact on other modes of travel by filling streets with parking, impacting cycling etc.

Cars also have an enormous impact on the built environment, especially as the average car spends circa 95% of its life parked. A recent example of a new medium density estate illustrates the issue.



The area given over to parking is considerable – CPRE have surveyed recent developments and have determined that 40-50% of land area is often devoted to roads and parking.

However, cars are a good or the only solution for many journeys. It is likely that developments such as autonomous vehicles and car sharing will see a decline in vehicle ownership. It is notable how many younger people have adapted to an 'Uber enabled' lifestyle, and an ageing population may adopt a similar approach.

Are we moving to a future where cars will still exist, but in lesser numbers?

2. Roads

2.1. The A3

The Highways agency have identified (M25-Solent Route Strategy 2017) that the A3 in Guildford is deficient due to Capacity, Safety Issues, Excessive Noise, and Limited facilities for non-motorised vehicles.

As noted above - There is substantial evidence to suggest that providing additional road capacity and addressing bottlenecks in the highway network has the effect of generating additional demand for the road network, thus eroding or even eliminating any expected reductions in traffic congestion.

Improvements to the A3 could have the effect of pulling more Traffic through Guildford Town Centre and surrounding villages.

There are some arguing that the A3 should be put in a Tunnel to reduce, noise, pollution and increase capacity. This is an expensive option as any tunnel would be approximately 3 times the length of the Hindhead Tunnel.

	Hindhead (2011 Costs)	Guildford Tunnel
Length in tunnel	1830M	8250M
Cost per metre Tunnel	£155,000	£155,000
Cost of Tunnel	£283M	£1.278BN
Access Roads, Junctions etc	£88M	£88M
Total	£371M	£1.366

This is for the simplest Tunnel route as per the Hindhead construction with simple junctions at Compton and Burpham to the existing A3, with existing A3 route retained. Added to these costs would need to be Flood Prevention Measures, Ventilation Shafts, etc. Adding in inflation on construction costs of circa 40% in last decade gives rough estimate of circa £2Bn

Spending £2Bn on the A3 in Guildford and also for the strategic road network could bring real benefits but are there better uses for funds on this scale? Obviously, the issue of car numbers as in Para 1 impacts on this debate

2.2. We need to understand Traffic in Guildford.

Traffic surveys are not up to date for the town centre, and it will be difficult to get effective figures due to the traffic being abnormal due to Covid. The Society believes traffic needs to be broken into various categories and how this traffic is managed may have quite different strategies.

As it is very unlikely that we can have a ring road around Guildford due to its location and as noted above a solution for the A3 is expensive, traffic will need management.

Counterintuitively it may be necessary to allow Long Distance Traffic through Guildford in managed numbers, this is a balance considering impact on villages such as Clandon, Compton, Bramley, Shalford. Intercepting and managing local traffic by strategies promoting modal shift can reduce the overall transport load in the centre.

The Society believes a matrix of Traffic types needs development for the Town Centre with relevant management strategies. See our rough example below:

	Traffic Type	Example	Management Strategy
1	Long distance Passing Through	Horsham to Reading Horsham/ Godalming to join A3	Short Term difficult to manage as diverting via other routes brings its own problems e.g. Compton
2	Local Passing Through	Godalming to Research Pak	Can there be a good offer to intercept at Artington Park and Ride and use a cross Guildford Transit
3	Coming to the Centre for Work		Intercept at a Park and Ride – Reduce Parking Provision at offices?
4	Coming to Centre for Retail		Intercept at a Park and Ride – some option to come into centre as Pick up of goods may be required
5	Cross Guildford	Burpham to Onslow Village	Need to encourage Active Travel Modes plus buses.
6	Commuting	Guildford to London for Work	Encourage use of Public Transport, EV's likely to still need parking but maybe see 3,4, above we can reduce town centre parking and use facilities such as Leapale Rd Car park to clear our cars from streets – lure people in with EV charging points.
7	Commercial Deliveries to Shops and Commercial		Probably limited change short term.
8	Shopping on-line deliveries	Provide more collection points	Should Park and Ride sites have lockers to collect good from All Delivery Vans to be EV by an agreed date.

2.3. Road charging

Road charging has had a rocky history in the UK. Currently there are schemes operational in London, by far the largest, Durham, and Bath. The later scheme is principally aimed at managing pollution from heavy vehicles. Schemes have been designed and proposed for Edinburgh, West Midlands, East Midlands, Cambridge, and Manchester have all been considered but rejected in local referendum. Unlike London local mayors have limited powers to implement a Road Charging system so have had little backing from Westminster. As evidenced by the continuing freeze on fuel duty Westminster politicians despite an emerging 'green agenda' are reluctant to charge motorists at real cost.

Electric Vehicles are likely to prompt the change to some form of road pricing as a replacement for fuel taxes.

The Department for Transport in 2004 published a report entitled *Feasibility Study of Road Pricing in the UK*, which said road pricing was feasible and identified several potential benefits, including:

- Support the transition to cleaner vehicles by charging diesel and petrol vehicles proportionately more
- Promote the use of public transport, as well as car sharing
- Promote driving at less busy times of day and cut overall vehicle miles, thereby reducing congestion, air pollution and carbon emissions
- Based on the 'polluter pays' principle, it would be fairer to the consumer and to society, reflecting more closely the negative impacts of individual journeys
- Less car dominance would reduce road danger and improve public health.

Guildford is probably a good candidate for Road Charging to create a revenue stream to fund better alternative transport, reduce congestion and pollution. The key issue is managing change. A potential solution is to adopt a Smart Ticketing solution for Transport in the borough – see Section 6 below. This could be used to manage elements of road pricing e.g. Parking, accesses to defined areas etc to manage behaviours and support change. Ultimately it could evolve to a full road charging system.

Outside the UK road charging is used effectively in many cities e.g. Singapore.

2.4. Road Layout in the Town Centre

The Town Centre Master Plan is an opportunity to reshape the current gyratory system in the Town Centre.

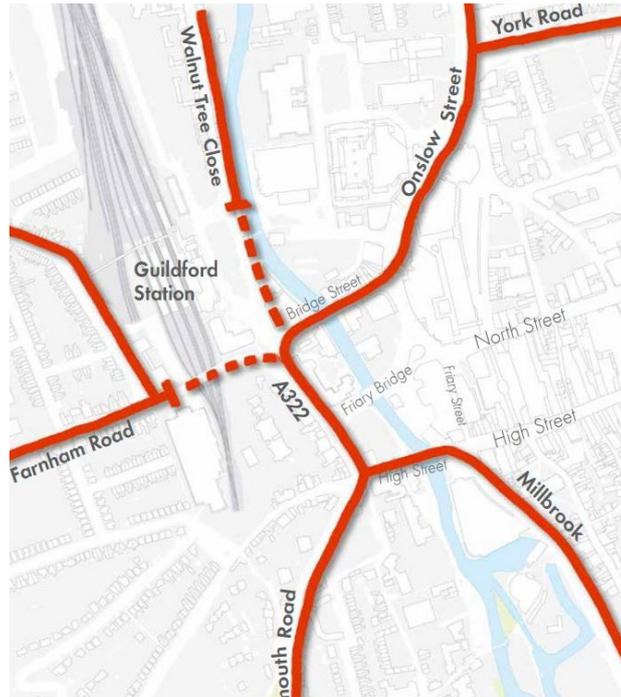
The Society believes we will have to accept that Traffic Management Schemes and promotion of Modal Shift is necessary to manage traffic volumes down to acceptable levels.

Several proposals have been proposed for the gyratory system including Tunnels, New Bridges etc. These have all had considerable costs and in some case are difficult to build without bring the centre of the town to a halt.

Ideally Guildford would have a southern bypass e.g. Dunsfold to Milford on the A3, or possible Peasmarsh to Compton avoiding Compton village. However, it should be remembered that the bulk of Guildford Traffic is LOCAL across the immediate Urban area thus being a candidate for modal shift.

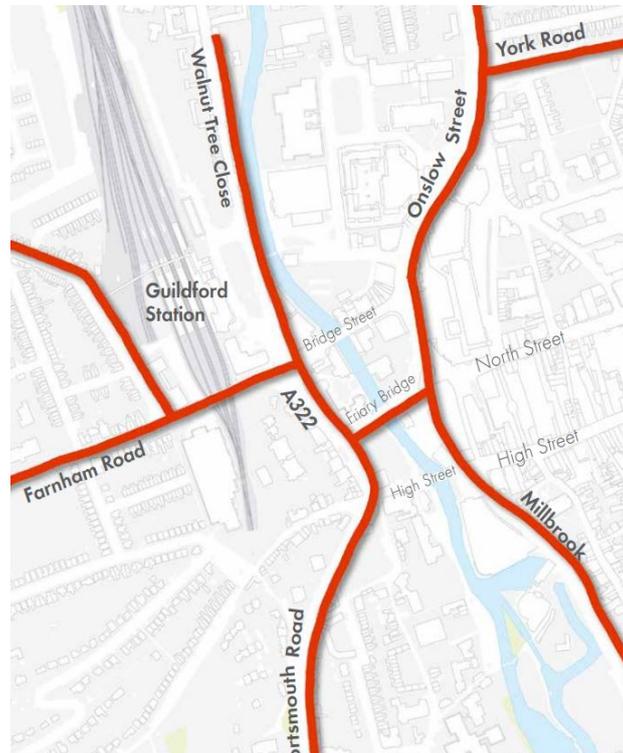
Provided proper traffic management is put in place the Society believes the current gyratory could be redesigned as was suggested by Allies and Morrison Study in its Draft Town Centre Masterplan 2015.

Allies and Morrison examined a series of options and proposed a revision of the gyratory system to revert to a two-way layout. Allies and Morrison preferred option was to route all traffic in a 'C' shape via Bridge Street and a rebuilt High Street Bridge.



'C' Route via Bridge Street	
PRO's	CON's
<ol style="list-style-type: none"> 1. Allows expansion to rear of existing Friary Street units to create a more attractive environment on Onslow Street. 2. Although comprehensive regeneration of Onslow Street is an aspiration, this option should not require the removal of the recently refurbished Friary Court office space as a pre-requisite for the gyratory intervention subject to more detailed feasibility work. 3. Creates largely traffic free space at western end of North Street. 4. New park created on Portsmouth Road car park as an early win alongside the retained public house. 	<ol style="list-style-type: none"> 1. Careful consideration required in relation to the impact on the High Street. 2. Further investigation required in relation to potential impact on existing junction / roads and adjacent buildings (including some with townscape merit) at the junction of High Street, Portsmouth Road and Park Street. 3. Likely to require alterations to High Street bridge to accommodate projected vehicle movements. 4. Significant traffic reductions (circa 57% at the worst performing junction) are likely to be necessary to support this scenario from a highway capacity perspective which could be achieved as an example by closing Farnham Road and Walnut Tree Close to through traffic during peak periods.

The alternative proposed was a 'H' shaped layout based on using Friary Bridge for two way traffic.



'H' Route Via Friary Bridge.	
PRO's	CON's
<ol style="list-style-type: none"> 1. Allows enhancement of central riverside area including Bridge Street. 2. Creates largely traffic free space adjacent to the proposed Bedford Wharf area north of Bridge Street. 3. New park created on Portsmouth Road car park as an early win alongside the retained public house. 4. No impact on buildings at junction of High Street, Portsmouth Road and Park Street. 5. Lower reductions in traffic flow required 	<ol style="list-style-type: none"> 1. Careful consideration required in relation to impact on Friary Court and the southern part of the existing units at Friary Street. Significant interventions required to Onslow Street. 2. Onslow Street remains as a barrier to movement between the historic town centre / North Street and the River Wey.

The Society on current information has the view that the 'H' option could be a contender solution for the town centre.

The 'C' option is predicated on a very significant reduction in traffic. The Society is concerned the massive reduction under this option would place pressure on surrounding roads e.g. traffic through Compton. Also, A&M had an unwillingness to tackle Friary Court, this land might be an opportunity to move Millbrook to the east and build over the road with a modern development cascading down to the River. Bridge Street could provide a very viable connection for all modes of transport to the station. Finally, we are concerned at the impact

using the Town Bridge could have on views down the High Street and St Nicholas Church (Listed at Grade II*).

We also believe the 'H' option can be improved by using Bridge Street as the access to the Station, with Walnut Tree Close being used as restricted access North of the Station.

We await more details on options and thinking from the TCMP team with interest.

3. Parking

The Society believes the P&R network needs more sights and have already proposed a site at Shalford, there is a opportunity potential to have one in the Worplesdon area as well. The Society also proposes Park and Ride Buses provide a cross town service e.g. you should be able to park at Artington and get to the research Park by the P&R bus. P&R costings also need to set to encourage use relative to town centre parking.

Making P&R sites connected to the Town Centre by an Active Travel Corridor should be considered. Facilities such as Bike Hire, Click and Collect lockers should also be considered.

As changes take place to transport patterns there may be a case for reviewing car centre parks and reallocating space to local dwelling to remove on street parking or service to a degree new housing.

4. Active Travel

A phrase that promotes the use of Cycling, Walking etc for short journeys. This has been accompanied by the promotion of these travel modes health benefits. The key enabler for Active Travel is proper provision of walkways, cycle paths etc. integrated into public transport and car parking.

Proper Sustainable Movement Corridors are also critical, we need proper plans to reach into and across the Town Centre. Too often Pedestrians and cyclists are treated as second class citizens e.g. some very uninviting pedestrian underpasses in the town centre, cycle lanes that consist of narrow painted lanes on pavements and roads (the cycling provision outside the Park and Ride at Artington is an exemplar on how not to spend money).

The Society also believes the Wey River Path should not be considered as the basis for a proper Active Travel Corridor. To encourage cycling proper provision as laid out by recent government standards should be adopted. <https://www.guildfordsociety.org.uk/eBikesub.html>

There needs to be a recognition that real money is needed to enable this active travel infrastructure.

As an example, the Guildford Bike User Group (GBUG) have been developing options for one or more Active Travel Bridges in the Town centre to link Pedestrian and Cycling Routes. A rough sketch is shown below of a scheme to cross Onslow St. It is recognised there are many other options related to potential changes in Bedford Wharf to a rebuild of the Town Bridge. A revamp of Bedford Wharf might include a elevated cycle way from the Walnut Tree Bridge and across into the town centre. The import aspect is to separate vehicles for pedestrians and bikes.

Onslow St Flyover 4
Route Option 2



5. Public Transport

Public Transport needs improvement where there are several modes and operators badly integrated. The aspiration should be to produce a seamless and easy to use network. Many cities in Europe, including London, have made great progress in this area and much could be learned.

5.1. Buses

Guildford has several opportunities to improve public transport

The new government policy for buses (Bus Back Better) provides an opportunity to manage buses more effectively in the future as regards routes, frequency, and integration of services. It should also make it easier to implement a proper smart ticketing system (see below para 6).

The Society believes a review of the bus network is needed to open-up cross-town services and provide new services to the strategic sites.

The society assumes Electric, or Hydrogen Buses will become the norm. It is noted that old Trolley Buses are very efficient as they don't carry heavy batteries and are very simple mechanically. Many continental Towns and Cities are using Trolley Buses with Batteries to provide flexibility to operate beyond the wires.

Hydrogen needs a new fuel distribution network and very cheap electricity to produce (producing Hydrogen is an inefficient process).

Any Bus Stands in the town centre will need to be designed to allow for opportunity charging, see a recharging station in operation at Schiphol airport below, can also be combined at a bus stop.



Hybrid Buses should be equipped with Geo-Fencing to enforce electric operation, this is already in operation in Brighton.

Bus lanes are a major issue in Guildford the Society believes two new routes might be worth considering

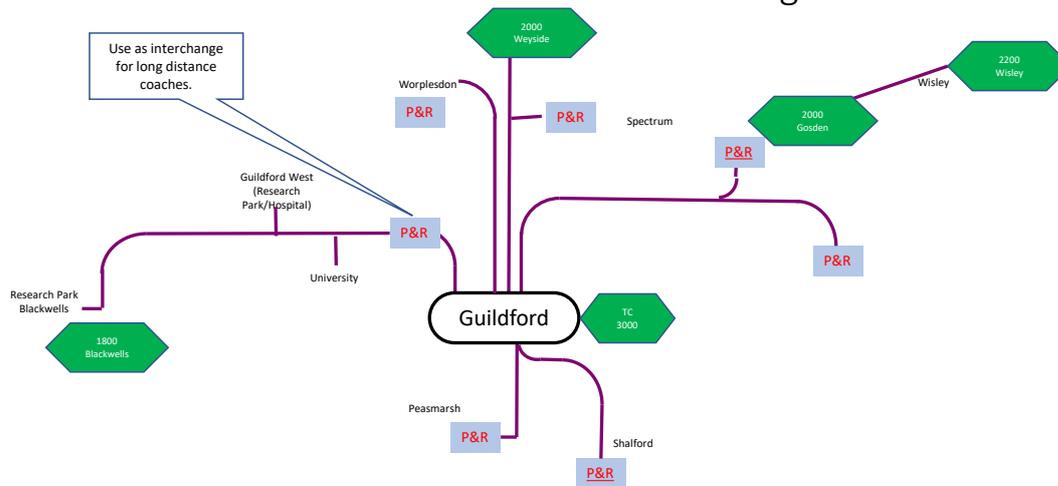
- From the South look at a Bus Lane along border of Shalford Park?
- From North investigate as part of Weyside Scheme a bus lane across the Wey and Stoke Park?

In addition, some areas have signalled bus lanes with 2-way buses on one lane. This could open opportunities in Guildford.

Zurich provides some interesting examples of modern bus operation

<https://www.guildfordsociety.org.uk/TrolleybusZurich.html>

Guildford Rail – Bus links to P&R and Strategic Sites



P&R Services

- Extend to cross the town from one P&R to another?
- Extend P&R services to Weyside and Blackwells Park, and up A3 to Wisley?
- New P&R in Shalford, Worplesdon, Gosden?
- Use Onslow P&R as interchange to long distance coach services on A3?
- Are there other local bus services that could interchange at P&R?

5.2. Rail

There are already plans for Guildford East and West Stations. Plans for a Heathrow Southern Link may come forward later in 2021 as a private sector initiative. Note as the Heathrow Southern Link has wider benefits across the region in terms of connectivity, compared with the Heathrow western link which has now been paused, it is probably still a project that may progress.

It should be noted that rail in the Guildford area has substantial spare capacity with signalling upgrades making capacity increases possible. As an example, automatic train operation can increase capacity e.g. 24TPH one way on Thameslink, 33TPH Piccadilly Line

Technological evolution is also producing rolling stock capable of running on multiple power sources (we may see this on the Gatwick Route with new units capable of Diesel, Third Rail and 25Kv operation)

The boundaries between Trains and Trams are being broken by Tram Trains which can operate as either a tram or train using multiple power sources.



Tram Train Unit in operation in Sheffield

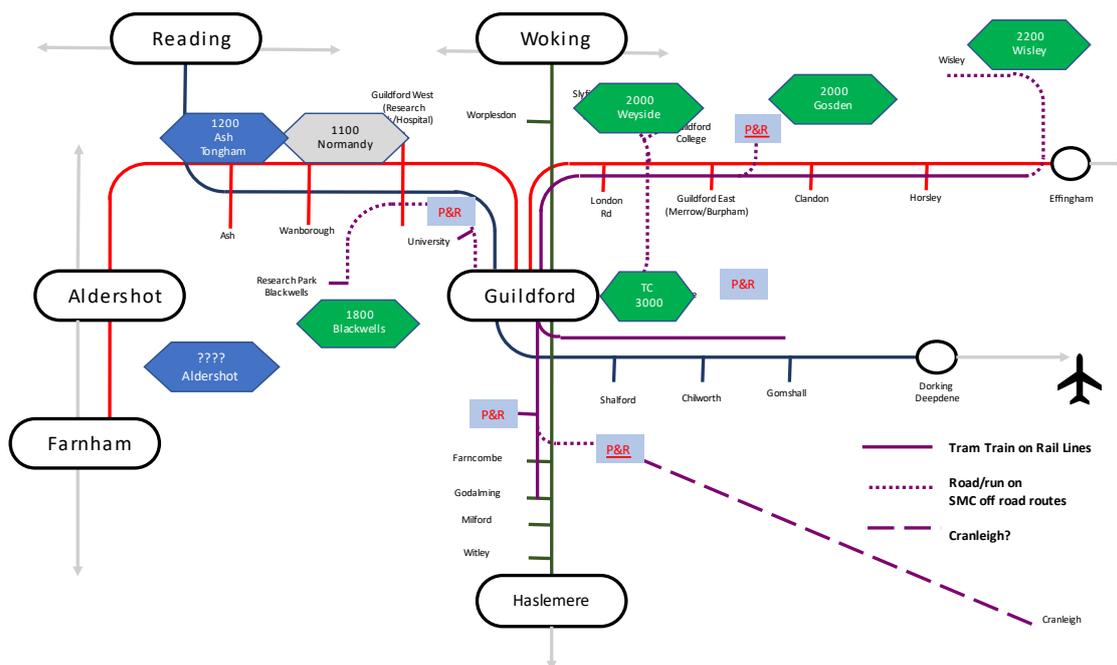
It is very unlikely that Guildford could support a case for a Tram network, but Tram Trains might be a solution to:

- Add minor extensions of the existing rail network with light rail extensions. Examples could include Park and Ride and Strategic Sites, as well as supplementing local rail services. The technology could even aid the re-opening of the old Cranleigh Rail line
- Use spare capacity on rail network to supplement or replace key road routes e.g. more services to more destinations through St Catherine's Tunnels.

Tram Trains have all the advantages of a conventional tram being able to climb hills, handle sharp corners, have fast acceleration, and are proven technology using Battery, OHL, 3rd Rail.

Trams are also known to be attractive to users and promote modal shift.

Guildford Rail –Tram Train could serve Strategic Sites



6. Promoting Change - Smart Ticketing and Road Pricing

A Guildford area Smart Card (similar in concept to Oyster) would be a useful way to encourage use of public transport and manage demand. Ideally the system would cover Rail, Buses, Car Parking, Bike Hire, and Taxis.

Properly managed the system could provide pricing options to encourage behaviours e.g. Guildford Urban residents might be given one free parking day in the Town centre a month. Park and Ride vs. central parks could be dynamically priced to encourage leaving cars on the periphery. Hotels could give out temporary travel cards for visitors to use on local buses and rail to reach parts of the borough. All these techniques are in use in Europe.

20-4-2021