

## Appendix 3 – The Cost of Congestion

### Forecast levels and the cost of congestion in Reigate & Banstead

The traffic impacts of potential development sites, identified as part of Reigate & Banstead Borough Council's submission draft Local Plan, were assessed in 2017 using Surrey County Council's strategic highway model for the forecast year 2031.

The strategic highway assessment represents a robust "worst case" in terms of transport demand and supply assumptions. This study is a highway only assessment and is based on observed vehicular trip rates obtained from other similar development sites. As such it does not take into account the opportunity for further mode shift should there be increased investment in sustainable modes.

Links and junctions within the borough which have been forecasted to be under stress, where drivers will be subject to increased delay, have been defined as 'hotspots'. The list of hotspots has been used to inform the development of the County's Local Transport Strategy Forward Programme as well as the Borough's Proposed Submission Development Plan Infrastructure Delivery Plan (IDP) and Community Infrastructure Levy (CIL), as it is these locations which are likely to require mitigation to reduce the impact of any development in the local area.

#### Network Hotspots and Mitigation

To summarise the traffic impacts identified in this study, Table 4.16 lists the junction and sections of road which would experience large vehicle delay, termed 'hotspots'. The hotspots are shown geographically in Figure 4.16.

Hotspots are areas of stress where drivers are subject to considerable delay and are likely to require mitigation to facilitate any development in the local area. This could be 'hard' or 'soft' measures, or most likely a combination of both. Hard engineering measures could involve increasing the number of lanes of the carriageway or introducing a cycle lane for example, whilst soft measures could be the implementation of a travel plan to encourage travel by sustainable modes.

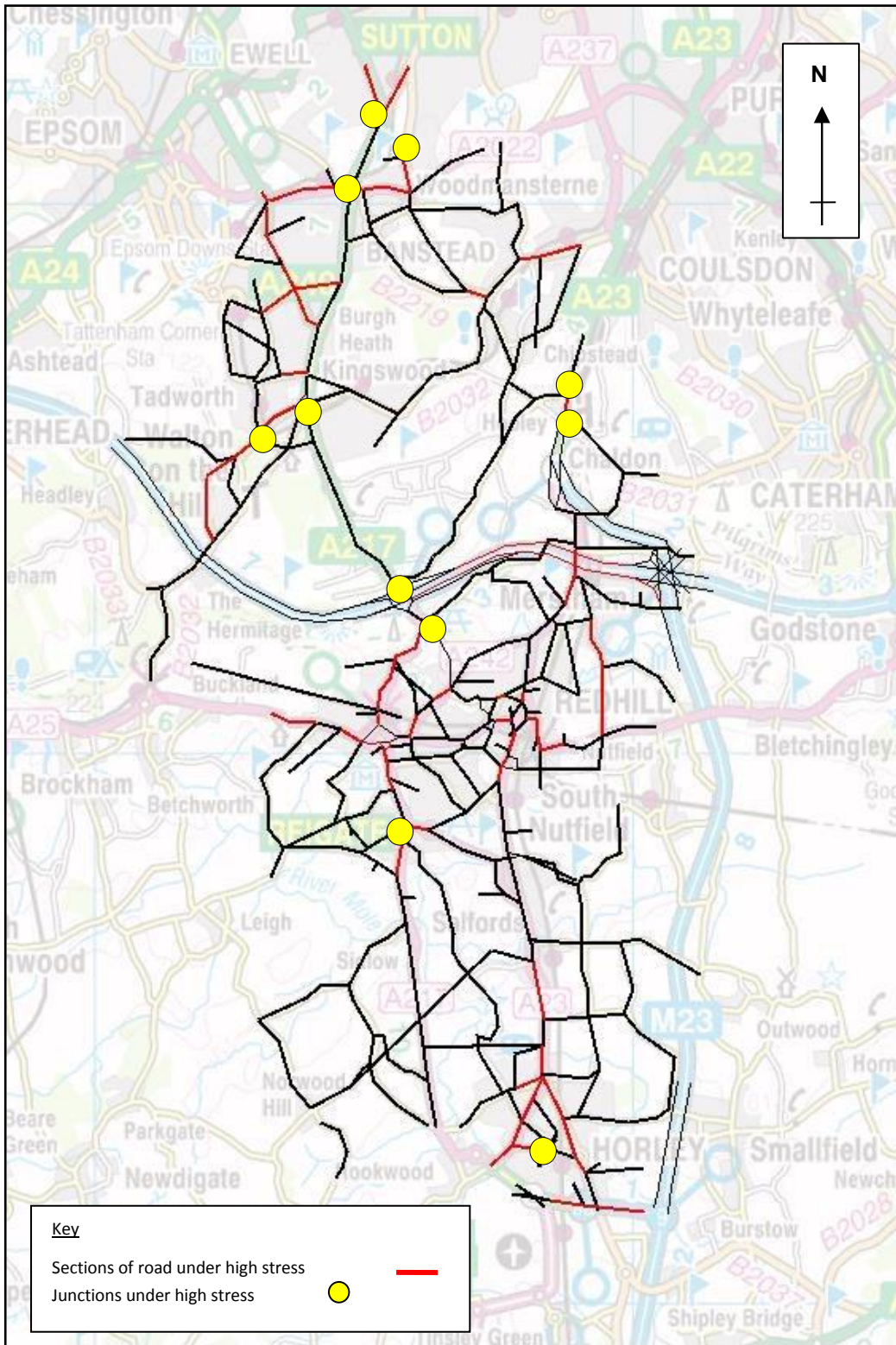


Figure 4.16: Network hotspots modelled 2017

<b>Links</b>	
Banstead	A217 Belmont Rise
	A2022 Fir Tree Road
	A2022 Winkworth Road
	A240 Reigate Road
	B2218 Sutton Lane
	B2219 Lower Park Road
	B2221 Tattenham Way / Great Tattenhams
	B2230 Brighton Road
Chipstead	B2032 Chipstead Valley Road
Tadworth	B2220 Tadworth Street
	B2220 Chequers Lane
	D1106 Shelveys Way
Merstham	A23 London Road North
Redhill	A23 Brighton Road
	A25 Nutfield Road
	A25 Redstone Hill
	A25 Station Road
	C224 Linkfield Lane
	D1263 Cormongers Lane
Reigate	A217 Reigate Hill
	A2044 Woodhatch Road
	A217 Bell Street / Cockshot Hill
	A217 Dovers Green Road
	A242 Croydon Road / Gatton Park Road
	A25 Buckland Road
	A25 West Street
Earlswood	A23 Horley Road
Horley	A23 Airport Way
	A23 Bonehurst Road
	A23 Brighton Road
	B2036 Balcombe Road
	C64 Massetts Road
	D336 Horley Row
Highways England	M25 mainline anticlockwise junction 8 to 7
	M25 clockwise off slip at junction 7 for the M23
	M25 mainline clockwise junctions 7 to 8
	M23 mainline southbound junction 9 to 10

	M23 northbound off slip at junction 8 for M25
	A23 Brighton Road between Church lane and Star Lane
<b>Junctions</b>	
Banstead	A2022 Winkworth Road / Croydon Lane roundabout junction with B2218 Sutton Lane and B2217 Sutton Lane
	A217 Belmont Rise roundabout junction with B2230 Brighton Road
	A217 Brighton Road signalled junction with A2022 Fir Tree Road and A2022 Winkworth Road, Banstead Crossroads
Tadworth	B290 Station Approach Road signalled junction with B2220 Tadworth Street
	A217 Brighton Road signalled northbound approach arm to Bonsor Drive roundabout
Hooley	A23 London Road signalled junction with Star Lane
	A23 Brighton Road priority junction with Dean Lane
Reigate Hill	A217 Reigate Hill priority junction with Gatton Bottom
	A217 Reigate Hill Interchange (M25 J8)
Woodhatch	A217 Cockshot Hill signalled junction with A2044 Woodhatch Road and Prices Lane
Horley	C64 Massetts Road signalled junction with Victoria Road

Table 4.17: Network hotspots modelled 2017

### The cost of congestion

Impact on the highway network of proposed development can also be viewed in terms of existing levels of congestion. Congestion during peak hours is an existing issue of concern at some key locations in the borough. The congestion modelling described above identified key areas where the highest congestion is felt. The cost of congestion can be experienced through several impacts including journey time delay and unreliability, increased emissions and associated costs (fuel, maintenance for example).