

Appendix B Long List of Interventions

No.	Intervention	Description	Source	Theme	Sub-theme	JR scoring	RA Scoring	Average scoring
135	Cycle access improvements for Stroud town centre	Improvements to cycle infrastructure on the main arteries into Stroud, e.g. Merrywalks	CP	Infrastructure	Cycling	17	17	17
122	M5 pedestrian/ cyclist overbridge to Cam and Dursley station	A pedestrian and cycle only bridge over the motorway, providing a more direct access to Cam and Dursley station from the Wisloe development site	SPW	Infrastructure	active travel	16	16	16
123	Cycle route to Stroud from Sharpness development	Direct cycle route to Stroud, making use of off-road paths and providing infrastructure where necessary	SPW	Connectivity	Cycling	16	16	16
130	Dutch style cycle facilities to link all villages and major centres	Segregated off-road routes in towns, with a network linking to villages	STW	Infrastructure	Cycling	16	16	16
137	Cycle Access improvements between Eastington and Nailsworth	Cycle Access improvements between Eastington and Nailsworth	CP	Infrastructure	Cycling	16	16	16
60	Cantilever bridge off A4135 over railway	Pedestrian cantilever walkway as an extension to the existing railway bridge to bring footway up to standard	SPW	Connectivity	active travel	16	14	15
64	Time-limited Pedestrianisation in towns	Pedestrianisation of some roads in town centre to reduce number of vehicles and emissions. Pedestrianisation between 10am and 4pm	AECOM	Safety	active travel	15	14	15
117	Prioritise Greenway Corridors over highway solutions	Priority of off-road active travel solutions over highway modifications	STW	Infrastructure	active travel	15	15	15
118	Extension of Cam and Dursley Greenway	Extension of the Greenway north to Slimbridge and Cambridge, and south to Wotton, Charfield and Kingswood	AECOM	Infrastructure	active travel	15	15	15
119	Improvement to the Cam and Dursley Greenway	Cycle access improvements to Cam and Dursley Rail Station and to Uley	STW	Infrastructure	active travel	15	15	15
129	Purchase land for active travel routes	Additional land to increase opportunity for high quality walking and cycling infrastructure	STW	Cost	Cycling	15	15	15
133	Free e-bikes for 18 year olds	Provision of e-bikes to students to get to college	STW	Technology	Cycling	16	13	15
134	Introduce e-bikes with suitable charging facilities to overcome Stroud's topography	Public e-bike hire bike service	STW	Technology	Cycling	16	13	15
136	Cycle infrastructure improvements (countywide)	Cycle infrastructure improvements (countywide)	CP	Infrastructure	Cycling	15	15	15
139	Cycle Access improvements to national cycle route 45, Stroud	Improved access points onto NCN	CP	Infrastructure	Cycling	15	15	15
140	Cycle Access improvements for Cainscross roundabout, Stroud	Cycle crossing facilities at the roundabout to improve safety for cyclists	CP	Infrastructure	Cycling	15	15	15
141	Cycle access improvement Multi-Use Track - B4008 between Little Haresfield and Stonehouse	Widening of existing pavement to a multi-use track	CP	Infrastructure	Cycling	15	15	15
146	Improved walking and cycling links connecting with Cam and Uley	Extend the Cam and Dursley greenway to connect to Uley	SLP	Connectivity	active travel	15	14	15
147	Cycle training	Provision of free adult cycle training for all abilities	AECOM	Behaviour	Cycling	15	15	15
148	Separate cycle signal phase at traffic lights	To improve cyclists safety. Options include pre-signal to give cyclists a 5-secs head-start, or a separate signal phase for cyclists	AECOM	Infrastructure	Cycling	18	11	15
156	Improvements for A419 corridor, Stonehouse	Provision for pedestrians and cyclists on the A419	CP	Infrastructure	road	15	14	15
165	Active travel infrastructure in place before the new development is open before first occupation	Active travel infrastructure in place before the new development is open before first occupation to encourage active travel habits	AECOM	Policy	Cycling	14	15	15
166	Attractive, safe and direct active travel routes to local facilities and town centres	Desireable routes over journeys by car to local facilities	AECOM	Infrastructure	Cycling	15	15	15
171	Segregated cycling infrastructure in all new developments	Segregated cycling infrastructure in all new developments	AECOM	Policy	Cycling	15	15	15
20	Increase and prioritise government investment for active travel infrastructure and buses including hubs	Government to prioritise spending on sustainable transport measures	STW	Cost	Politics	10	18	14

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21	Political Will to prioritise development in sustainable travel modes	Support from SDC and GCC to prioritise spending on sustainable transport measures	STW	Cost	Politics	10	18	14
63	Pedestrian improvements to Market Street	Placemaking to enhance pedestrian safety and user experience	SLP	Infrastructure	active travel	15	13	14
138	Cycle Access improvements to Gloucester & Sharpness Canal towpath, Gloucester	Improved access points onto the canal network	CP	Infrastructure	Cycling	14	14	14
144	Improved cycle linkages to Cam & Dursley station	Improved cycle access to Cam and Dursley station	SLP	Connectivity	Cycling	14	14	14
145	Improvements to Stroud station; and investigate the potential for an integrated transport hub	Improvements to walking, cycling and bus links and infrastructure at the station	SLP	Infrastructure	rail	13	14	14
157	B4066 corridor improvements, Berkeley	Improvements dictated in the Safe and Sustainable Travel in Standish Report, 2017	CP	Safety	road	14	14	14
158	Highway safety improvement programme	Highway safety improvements for pedestrians and cyclists across the district	CP	Safety	road	14	14	14
162	A38 – Cross Keys Roundabout – upgrade of access;	Upgrade of pedestrian and cycling infrastructure to improve safety	SLP	Infrastructure	road	14	13	14
163	A419 corridor – Chipman’s Platt Roundabout upgrade;	Improvements to National Cycle Route through the installation of an off carriageway shared use cycle way from Spring Hill Road to Grove Lane	SLP	Infrastructure	road	15	13	14
3	Charging points for Ebikes	Public charging points for e-bikes	STW / GLTP	Infrastructure	Cycling	12	13	13
28	Create Cycle and Walking Strategy for area	Production of a Walking and Cycling Strategy to outline districts ambitions and financial resources available	STW	Policy	Politics	11	14	13
41	Ebley Road between Stroud and Stonehouse requires more sustainable infrastructure, including bus and active travel priority	Bus and Active travel priority on Ebley Road	STW	Infrastructure	sustainable transport	12	13	13
61	Pedestrian/ cycle access over A4135/box road junction	Facilities to allow pedestrians and cyclists to cross from Draycott development, including reducing entry radius of the bellmouth	SPW	Infrastructure	active travel	13	13	13
116	Maximise and prioritise use of towpath for active travel and Uley, Cam, Dursley Greenway	Provision of a high quality upgrades to the canal and greenway networks	STW	Behaviour	active travel	12	13	13
120	Cycle parking at key destinations	Provision of Sheffield stands at key retail, education, employment and healthcare destinations to encourage cycling	STW/AECOM	Infrastructure	Cycling	13	13	13
121	Secure cycle parking in new developments	Provision of secure cycle parking for all residents and visitors	AECOM	Policy	Cycling	13	13	13
124	Hire Bike Scheme	Scheme available to residents to use that have no access to a bicycle	SPW	Infrastructure	Cycling	13	13	13
142	Bikeability training in schools	Modern cycle training programme delivered across 3 levels to children	GLTP	Behaviour	Cycling	13	13	13
169	New developments to be near facilities within 10 minutes without the use of a car	Facilities available (or committed) within 10 minutes without a car? (including nursery, primary school, convenience store, cafe, small business service hub, community centre, GP practice, sport/leisure facilities, playground)	AECOM	Connectivity	sustainable transport	13	13	13
42	Sustainable 'Spine' through Wisloe - Cam - Stroud - Dursley promoting high quality sustainable transport	Creation of a high-quality, reduced travel-time route	STW	Infrastructure	sustainable transport	10	13	12
44	Shared space or 'drop the pace' campaign to reduce conflicts between pedestrians and cyclists	Signs on shared use path and greenways reminding users of etiquette	STW	Communication	other	12	11	12

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45	Improve existing active travel infrastructure	Improvements including lighting, road surfaces, widening, vegetation clearance	STW	Infrastructure	sustainable transport	11	12	12
47	Signage strategy for active travel users to improve wayfinding in the county. Applicable to existing and new infrastructure.	Consistent, recognisable wayfinding across the walking and cycling network	STW	Policy	other	13	11	12
72	Cam and Dursley Railway station enhancements	Improvements to walking, cycling and bus links and infrastructure at the station	CP	Infrastructure	rail	13	11	12
125	Prioritise the allocation of highway land to active travel users rather than motorised vehicles	Retrofitting of highway to cater for pedestrian and cycle schemes	STW	Behaviour	active travel	13	11	12
126	Complete a road audit of Sustrans NCN routes to align with current desire lines	Audits to understand quality of routes	STW	Communication	Cycling	13	11	12
132	Identify pinch points in canal towpaths	Establish areas of the towpath for improvement	STW	Safety	active travel	12	11	12
143	Linkages to Countywide cycle network	Strategic development sites to link into the cycling network	SLP	Connectivity	Cycling	12	12	12
155	Road safety improvements for cyclist to remove drains and have kerb stone inlets	improvements to the highway network to improve safety and transitioning between road/off-road infrastructure	STW	Infrastructure	Cycling	13	10	12
17	Ban parking in town centres	Restriction of parking in town centres, giving space back to pedestrians and cyclists	STW	Behaviour	Parking	11	11	11
29	Planning policy to promote connectivity and modal shift	Policy highlighting the aims and objectives of SDC to move towards a modal shift	STW	Policy	Politics	11	11	11
75	Stonehouse railway station enhancements	Improved facilities, including a more direct step-free access and sheltered cycle storage	CP	Infrastructure	rail	10	11	11
77	Railway Station Travel Plans	A strategy for encouraging sustainable travel options of customers going to and from the station	GLTP	Policy	rail	11	11	11
84	Easy to find bus information that is in one place	Instant up to date arrival information for each bus, including location of bus stops and frequency of services	STW	Communication	bus	10	11	11
105	Continued roll out of multi operator bus Smartcard ticket	Bus ticket that can be used on all services	GLTP	Technology	bus	11	10	11
110	Smart ticketing - contactless payments	Pay for tickets on buses using contactless payments	AECOM	Technology	bus	11	11	11
112	All developments should have mandatory provision infrastructure for active travel and EV charging points, following guidance provided by SDC	Developments to follow national and local design guidance to make developments sustainable	STW	Policy	development	10	11	11
128	Dedicated resources for developing off road, segregated cycle routes		STW	Cost	Cycling	11	11	11
131	Cycle racks for buses	Integrates bus and bikes	STW	Infrastructure	Cycling	12	9	11
6	Grants available for businesses for E-bikes	Grants available for businesses for E-bikes for business use	AECOM	Communication	Cycling	10	10	10
15	Active Travel Maintenance Strategy	A strategy to inform how to deliver maintenance programmes for active travel, referring to national guidance	AECOM	Policy	Maintenance	8	11	10
16	Neighbourhood enforcement to stop pavement parking	SDC to enforce a ban for vehicles parked on the pavement to give space back to intended users and reduce damage to pavements caused by vehicles.	STW	Behaviour	Parking	9	11	10
32	Positivity campaigning to promote public transport and active travel	Campaigns to promote public transport and active travel	STW	Communication	other	10	10	10
39	Increase and ring-fence funding for sustainable transport	keeping a proportion of funding solely for sustainable transport interventions	STW	Cost	Politics	9	11	10
43	Water tax between Sharpness and Gloucester	Water tax on River Severn/ Gloucester Canal	STW	Infrastructure	sustainable transport	11	8	10
49	Ongoing support for Thinktravel branding	Promotion of 'Thinktravel'; the brand name for Gloucestershire's smarter choices programme, designed to help people consider their travel choices and encourage use of more sustainable modes of transport	GLTP	Communication	other	9	11	10

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58	Road user awareness	Campaigns, such as the THINK cyclist campaign at bus stops, backs of buses etc	AECOM	Behaviour	other	10	9	10
113	Locate new developments where public transport solutions are possible	Development next to existing transport networks (rail, bus, cycle)	STW	Infrastructure	development	10	9	10
168	New developments to have walkable distances to bus stops and rail stations	All areas of new development to be within walking distance of bus stops (max 300m) and rail stations (max 800m)	AECOM	Connectivity	active travel	10	10	10
12	Encouraging the development of Last Mile delivery schemes (at suitable locations)	retiming of last mile deliveries as a positive tool to manage travel demand in town centres and locations where there are residential properties close by.	GLTP	Behaviour	HGV	9	9	9
14	Capital Maintenance Programme	Regular maintenance of highways, footways, cycleways and bus infrastructure	CP	Policy	Maintenance	9	9	9
25	Work with top 20 employers to create an active travel plan	Travel Plan initiatives to encourage employees to travel sustainably	STW	Policy	other	8	10	9
31	Business engagement with Gloucestershire County Council to promote and encourage active travel	Target for employers to produce an Active Travel Plan	STW	Policy	other	8	9	9
59	New junction design to be consistent	Design to follow Manual for Gloucestershire Streets and other relevant guidance	AECOM	Policy	other	9	9	9
88	Improvement connections between bus and rail	Improved transition at rail stations between rail and bus services	STW	Connectivity	bus	8	9	9
99	Bus corridor upgrade on Wotton-Kingswood-Charfield-Thornbury (developer funded)	Frequent, direct bus service between Wotton-under-Edge and Thornbury	STW	Infrastructure	bus	8	9	9
100	Real Time Indicators for bus and car parks, especially in hub locations	Real Time Information about bus services and real-time parking availability information	STW	Technology	bus	9	8	9
109	New bus service required to serve new strategic allocation at Sharpness & Cambridge	Existing bus services to connect into strategic housing development sites	SLP	Connectivity	bus	9	9	9
127	Promotion of new cycle routes to sustrans for where locals want to go	Advertisement of local routes via Thinktravel	STW	Connectivity	Cycling	9	9	9
167	Provision of frequent Public Transport services from first occupation	Provision of services to key destinations	AECOM	Connectivity	Bus	9	9	9
4	EV fleet for public/council organisations and companies	Fleet of Electric vehicles in organisations for business use	STW	Technology	EV	8	8	8
23	Travel Plan initiatives incorporated into residents welcome party	Travel Plan initiatives given directly to residents rather than via paper/ email communications	SPW	Behaviour	development	7	8	8
34	Promote alternative routes for different modes	Information readily available to residents and visitors on active travel and public transport networks	STW	Communication	other	8	8	8
55	High speed broadband	High speed broadband across the district to reduce the need to travel to work, in new and existing developments	AECOM	Technology	other	8	7	8
62	Daily walking clubs. Walks in small and large communities (and cycle clubs for different age groups)	Clubs to encourage health and fitness	STW	Behaviour	active travel	8	7	8
68	Tram or rail between Sharpness and Gloucester centre with the potential to connect to Cheltenham	Rail or Light rail line connecting Sharpness and Gloucester	STW	Infrastructure	rail	8	7	8
73	A new railway station(s) south of Gloucester, north of Bristol	New station allowing greater transport choice for new developments	CP	Infrastructure	rail	7	8	8
82	Bus Gate on Naas Lane	Bus gate to remove vehicular traffic (except buses) to prioritise sustainable travel along the most direct route to the business park	SPW	Infrastructure	bus	8	7	8
85	Improve bus frequency between Stroud, Stonehouse and Gloucester.	15-minute frequency from Stroud to Gloucester	STW	Connectivity	bus	8	8	8
86	Metrobus northern extensions	Extension of metrobus to Gloucester	STW	Connectivity	bus	8	8	8

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87	New bus services to rural areas and shuttle buses for commuters	Bus services to connect rural districts to town centre	STW	Connectivity	bus	8	8	8
90	Metrobus extension in Thornbury-Charfield-Wotton-M4 Junction 14 and Park and Ride	Metrobus extension to Wotton-under-Edge	STW	Connectivity	bus	8	8	8
96	Use of A38 to create a bus Express between Bristol North Fringe and Gloucester, including stops at Whitminster, Falfield and Wisloe. Local park and change	Limited stop service between Bristol and Gloucester in the peaks	STW	Infrastructure	bus	8	8	8
102	Bus stop and bus advantage improvements for Stroud - Gloucester corridor	Upgrades to bus stop infrastructure	GLTP	Infrastructure	bus	8	8	8
104	Ongoing bus stop improvement programme	Programme to bring all bus stops to the same standard in the District, including shelters, RTI	GLTP	Policy	bus	7	8	8
106	Bus service 12 - extension of existing service	Extension of the 12 service to link into strategic development sites	SLP	Connectivity	bus	8	8	8
107	Bus service 61 extension & increased frequency for access to Stroud.	Increased frequency to cater for demand	SLP	Connectivity	bus	8	8	8
108	Bus service frequency increase and better linkages to Cam & Dursley railway station	Provision of a more frequent bus service to/from Cam& Dursley station to cater for last-mile movements	SLP	Connectivity	bus	8	8	8
111	Bus priority	Retrofitting Bus priority measures on the highway to allow a time-advantage	AECOM	Infrastructure	bus	8	8	8
27	Support working from home/community working	Promote working from home within businesses	STW	Technology	other	7	7	7
33	Consult with communities to improve opportunities for partnership working	Consultation with communities when designing new sustainable measures	STW	Communication	other	7	7	7
50	Personalised Travel Plans for new developments	A method to encourage new residents to make more sustainable travel choices through the provision of information, incentives and motivation directly to individuals to help them voluntarily make more informed travel choices.	GLTP	Policy	development	7	7	7
51	Personalised Travel Plans for key corridors	A method to encourage residents and businesses on A38, A419, A4135, B4066 to make more sustainable travel choices through the provision of information, incentives and motivation directly to individuals to help them voluntarily make more informed travel choices.	GLTP	Policy	other	7	7	7
69	New railway station to Bristol from Stonehouse	Direct link from Stonehouse onto Bristol-Birmingham Line	STW	Infrastructure	rail	7	6	7
79	Extension of bus services into new development sites	Extension of bus services into all new developments from first occupation	SPW	Connectivity	bus	7	7	7
80	Bus gate on Grove Lane	Bus gate to reduce flow of traffic on that link	SPW	Infrastructure	bus	6	7	7
81	Rapid Bus/coach service to Bristol	Limited stop service to Bristol from Sharpness, stopping at North Fringe, MOD, and city centre	SPW	Connectivity	bus	7	7	7
92	Free public Transport	Public transport without charge	STW	Cost	bus	7	6	7
93	Public transport should be at a reduced cost	Subsidised bus network to reduce cost of fares	STW	Cost	bus	7	6	7
94	Identify bus only priority routes to help force use of park and rides	Park and ride connected via bus-only routes to be more attractive to use	STW	Infrastructure	bus	7	6	7
95	Interchange hubs for multi-modal onward travel		STW	Infrastructure	bus	5	8	7
170	New developments to have a standard bus stop infrastructure	Developments should be planned such that all bus stops are equipped with seating and a shelter	AECOM	Policy	bus	7	7	7
1	EV charging points at new developments	Charging points available for residents at new development sites	SPW	Policy	EV	6	5	6

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2	Communal EV charging points for existing communities	Public charging points available in the district for existing residents	STW	Infrastructure	EV	6	6	6
7	Promotion of car share with benefits dedicated to car share users	Promotion of car share to public and businesses, with car share spaces closer to destinations as an incentive	STW	Cost	sustainable transport	6	5	6
56	Travel Information - RTI on social media/ app	Use of big data between road, rail information, car park availability, and bus information to allow travellers to make an instant decision on which network to use with the least delay.	AECOM	Technology	sustainable transport	6	6	6
67	Utilise rail line at Sharpness	Use of the existing freight line to connect Sharpness to Cam and Dursley station	STW	Connectivity	rail	7	5	6
71	Invest in new routes such as light rail	New light rail routes in the district to combat accessibility issues	STW	Infrastructure	rail	6	6	6
74	Rail Junction and Capacity improvements (dynamic loops) to rail lines	To enable more trains to operate and more stopping services, including possible new stations	CP	Infrastructure	rail	6	5	6
78	Bus turning Circle at Cam and Dursley station	Turning Circle to benefit bus routes	SPW	Infrastructure	bus	6	5	6
83	Improve customer service on public transport	Enable customers to feedback information to public transport providers	STW	Behaviour	bus	5	7	6
89	Bus scheme similar to a "Rural Uber"	Call a bus scheme	STW	Connectivity	bus	6	6	6
97	New Stroud/Stonehouse Bus Depot	New Stroud/Stonehouse Bus Depot	STW	Infrastructure	bus	7	5	6
114	Mixed used development at Sharpness would help to reduce demand for travel	Encourage mixed used development for a level of containment to reduce number of trips	STW	Infrastructure	development	6	6	6
150	A38 Interchange	An interchange on the A38 to allow travellers to switch easily between modes	SPW	Infrastructure	road	5	6	6
172	Parking Controls on streets of new developments	Restrictions to stop/ reduce on-street and pavement parking in new developments	AECOM	Behaviour	Parking	6	6	6
173	Major employment available within 30 minutes by public transport from new developments	Major employment available within 30 minutes by public transport from new developments	AECOM	Connectivity	sustainable transport	6	6	6
5	Develop standards for road markings for AV	Set new standards for road markings at roadworks so that AV can travel safely	AECOM	Technology	AV	5	4	5
8	Freight Gateway management system	On-line mapping portal to ensure HGVs are guided to the safest most appropriate routes and facilities.	GLTP	Technology	HGV	4	5	5
40	Focusing improvements along valley bottom and A38 e.g. widen roads and increase bus corridors	Focus improvements on the main arteries rather than connecting country roads	STW	Infrastructure	road	5	5	5
65	Closure of level crossings on Bristol, Birmingham line	Level crossing closure to improve safety for active travel users	SPW	Safety	rail	5	5	5
70	Opening of halts as central hub	preserving land for future rail stations and masterplanning a local centre around this	STW	Infrastructure	rail	4	5	5
76	Electrification of Bristol to Birmingham main line	Electrification to improve speeds and air quality on the line	GLTP	Infrastructure	rail	5	5	5
91	Prioritise a Park and Ride to Stonehouse and Stroud	Park and ride off M5 J13 to Stroud and Stonehouse	STW	Infrastructure	bus	7	3	5
151	Transport Hub at M5 J13		SPW	Infrastructure	road	5	5	5
159	20 mph zones	20mph zones across urban areas and new developments	CP	Safety	road	5	4	5
161	A419 corridor – possible dualling from Chipman's Platt Roundabout;	Dualling to allow a bus lane on the A419	SLP	Infrastructure	road	5	4	5
13	Engage with police and senior representatives to enforce HGVs and good driver behaviour e.g. speeding	Increase safety on road for all users	STW	Behaviour	HGV	4	4	4
18	Smart parking - pre booking of parking spaces	Pre-booking of parking spaces to avoid driving round to find a space, or to see if there are spaces available before the journey is made	AECOM	Technology	Parking	4	3	4

No.	Intervention	Description	Source	Theme	Sub-theme	JR scoring	RA Scoring	Average scoring
26	Collate high quality travel data to understand peoples movement	Greater database of movement data (cycle counts, pedestrian counts, junction counts, traffic counts)	STW	Behaviour	other	3	5	4
35	Congestions charges in towns and cities	Charge for vehicles entering towns and cities	STW	Cost	other	3	5	4
36	Invest in renewable energy in the county	All council owned buildings to use energy made from renewable sources	STW	Cost	other	3	5	4
46	Use of solar and battery technology alongside transport structures e.g. solar panels on car parks and alongside electric rails	Additional sources of renewable energy	STW	Technology	other	4	3	4
48	Feasibility Study to consider the role of Intelligent Transport Systems	A study into how the use of technology can improve the transport network	GLTP	Technology	other	4	4	4
66	Rail Halt at Whaddon	Land set aside for future rail station	SPW	Infrastructure	rail	4	4	4
101	Local Park and Ride facilities	Local Park and Ride sites around the district - feasibility study required to determine sites	STW	Infrastructure	bus	4	3	4
103	Strategic Park and Ride expansion at Waterwells, Gloucester	Additional car parking spaces at the Waterwells Park and Ride to capture trips from A38 to Gloucester	GLTP	Infrastructure	bus	4	4	4
149	A4135 - slow traffic and encourage other modes	Reduction of speed on A4135 to 30mph at existing 40mph sections coupled with road narrowing	SPW	Safety	road	4	4	4
152	Peak spreading of trips	Reducing the proportion of traffic in the most congested time period, with measures such car sharing, public transport incentives, encouraging businesses to allow working from home and flexible working	SPW	Behaviour	road	4	3	4
153	Peak time management at road junctions and rail services	Peak spreading of journeys to reduce pressure on the network, including working from home to reduce demand	STW	Connectivity	road	4	3	4
10	Deployment of non enforceable average speed cameras	To monitor speeds of HGVs	GLTP	Safety	HGV	2	3	3
11	HGV Highway Safety promotions	Ensuring HGVs and other road users are interacting safely	GLTP	Safety	HGV	3	3	3
22	Rationalisation of school catchments	Ensuring that children go to their nearest school where possible to minimise vehicle school trips and encourage active travel	SPW	Behaviour	other	3	3	3
24	Integration of County Transport Policy, Energy Policy, Industrial Policy and Health & Wellbeing	Integration of all policies for consistency	STW	Policy	Politics	2	4	3
30	Reduce provisions for developments which cannot demonstrate certainty about the delivery of a travel plan		STW	Communication	development	3	2	3
38	Build up economy to reduce out-commuting (money and skills) from Stroud	continue to work towards becoming a high-value economy	STW	Cost	other	3	3	3
52	Inverse Charging	Road charging scheme that charges more for shorter journeys	AECOM	Cost	other	3	3	3
53	CHARM control system	Improving traffic management integration through controlling traffic signals and exchanging data with local authorities	AECOM	Technology	other	3	2	3
9	On street parking management schemes	Scheme to restrict parking of HGVs in unsuitable locations	GLTP	Safety	HGV	2	2	2
54	Low emission zone in town centres	Pollution charging scheme to reduce emissions in town centres	AECOM	Environment	other	1	3	2
57	Decriminalisation	Allow council to enforce parking bans, speed limits	AECOM	Communication	other	2	2	2
98	Less polluting, and higher quality buses	Electric buses	STW	Infrastructure	bus	1	3	2
154	Introduction of a tax per mile for vehicles to discourage short-distance trips	Higher tax per mile for shorter distance journeys, compared to longer distance	STW	Cost	road	2	2	2

No.	Intervention	Description	Source	Theme	Sub-theme	JR scoring	RA Scoring	Average scoring
164	Ramp metering on junction	Controlling access onto M5 junctions during peak congestion in order to manage demand, reduce overall delay and improve safety	AECOM	Infrastructure	road	3	0	2
37	Increase petrol and diesel costs	Increase in fuel costs could discourage some trips	STW	Cost	other	1	1	1
115	Don't build at Berkeley as it is poor for buses and services access	Consider potential for sustainable transport options at Berkeley	STW	Infrastructure	development	2	0	1
19	Residents Parking Zones	Residents parking zones to reduce commuter/shopper parking in residential streets	AECOM	Safety	Parking	1	-1	0
160	Junction improvement A38 / B4066 junction including a new roundabout, Berkley	Junction improvement to benefit freight movement	GLTP	Infrastructure	road	0	-4	-2

Appendix C Package of Interventions

A38
Water taxi between Sharpness and Gloucester
Use of modal filters to benefit sustainable travel modes
Rapid bus/coach service to Bristol
Improved frequencies of bus services, improvements in bus stop infrastructure, and where appropriate, bus
Northern Metrobus extension
B4066 corridor improvements, Berkeley
Safety improvements for pedestrians and cyclists at Cross Keys Roundabout

A419/ B4008
Cycle Access improvements between Eastington and Nailsworth
Cycle Access improvements to National Cycle Route 45, Stroud
Cycle Access improvements for Cainscross roundabout, Stroud
Improved provision for pedestrians and cyclists on the A419 Ebley Road corridor
Improved frequencies of bus services on A419/B4008 between Stroud, Stonehouse and Gloucester, including improvements in bus stop infrastructure, and where appropriate, bus priority
A419 corridor – Chipman’s Platt Roundabout upgrade;

A4135
Dedicated pedestrian and cycle provision at railway pinch-point
Improved pedestrian and cyclist access over A4135/Box Road junction
Increase in bus service frequency and bus stop infrastructure, with improved connections to Cam and Dursley railway station
Sustainable 'Spine' through Wisloe - Cam - Stroud - Dursley promoting high quality sustainable transport

Rail
Improvements to pedestrian, cyclist and bus access and facilities at Stroud station, investigating the potential for an integrated transport hub
Improvements to pedestrian, cyclist and bus access and facilities at Cam and Dursley Railway Station
Improvements to pedestrian, cyclist and bus access and facilities at Stonehouse Railway Station
Railway Station Travel Plans
Rail Junction and Capacity improvements (dynamic loops) to rail lines
A new railway station(s) south of Gloucester, north of Bristol
Utilisation of existing rail line at Sharpness for domestic travel
Closure of level crossings on Bristol, Birmingham line
Opening of halts as central hub in new developments, where applicable

Bus
New bus services connecting rural areas and shuttle buses for commuters
Extension of bus services into new development sites
Ongoing bus stop improvement programme
Real time bus information, readily available in one place
Continued roll out of multi operator bus Smartcard ticket

Active travel
Improvement of existing active travel infrastructure in the District as a result of active travel audits
Extension of Cam and Dursley Greenway
Improvements to Gloucester & Sharpness Canal towpath, including access
Cycle access improvements for Stroud town centre
Cycle access improvement Multi-Use Track - B4008 between Little Haresfield and Stonehouse
Strategic development sites to link into the cycling network, providing improvements where possible
Attractive, safe and direct active travel routes to local facilities and town centres
Pedestrian improvements to Market Street
Time-limited Pedestrianisation in towns
Hire Bike Scheme, including hire of e-bikes, for residents, schools/colleges and businesses
Cycle parking at key destinations
Free Cycle training for all ages and abilities

Behaviour/cultural Change
Travel Plan initiatives incorporated into residents welcome party
Personalised Travel Plans for key corridors and for residents in new developments
Shared space or 'drop the pace' campaign to reduce conflicts between pedestrians and cyclists
Daily walking clubs. Walks in small and large communities (and cycle clubs for different age groups)
Improve customer service on public transport
Promotion of car share with benefits dedicated to car share users
Encouraging the development of Last Mile delivery schemes (at suitable locations)
Ongoing support for Thinktravel branding, including positivity campaigning to promote public transport, active travel and road user awareness
Real Time travel information for all modes on social media/ app
High speed broadband, encouraging home/community working
Consult with communities, improving opportunities for partnership working
Business engagement with Gloucestershire County Council to promote and encourage active travel

Enabler (includes strategy)
Active Travel (Walking and cycling) Strategy for Stroud District, including maintenance, signage, safety and suggested infrastructure improvements
Political Will to prioritise development in sustainable travel modes
Planning policy to promote connectivity and modal shift
Increase and ring-fence funding for sustainable transport
Prioritise the allocation of highway land to active travel users rather than motorised vehicles, purchasing additional land where required
Neighbourhood enforcement to stop pavement parking
New junction design to be consistent
All developments should have mandatory provision infrastructure for active travel and EV charging points, following guidance provided by SDC
New developments to have walkable distances to bus stops and rail stations
Major employment available within 30 minutes by public transport from new developments
Interchange hubs for multi-modal onward travel
EV fleet for public and private organisations
Reduce cost of public transport fares
Restriction of parking in town centres
Cycle racks for buses

Appendix D Amended Local Plan Policy Text

Technical Note

Project:	Sustainable Transport Strategy, Stroud	Job No:	60598598
Subject:	Local Plan Policy – Review and Proposed Amends		
Prepared by:	Chris Carter (Associate Director)	Date:	08/10/2019
Checked by:	Jess Railton (Senior Consultant)	Date:	09/10/2019
Approved by:	Richard Adams (Associate Director)	Date:	10/10/2019

Introduction

This Technical Note sets out AECOM's proposed amendments to Local Plan Policy as part of the Sustainable Transport Strategy (STS). It directly copies existing Local Plan 2015 planning policies and highlights additions in **yellow**, and deletions in ~~strike through~~.

Core Policy CP13 Demand Management and Sustainable Transport Measures

Proposals for major schemes, as defined by the Town and Country Planning (Development Management procedure) (England) Order 2010, will be supported where they:

1. Provide for a variety of forms of transport as alternatives to the car to allow more sustainable choices
2. Improve the existing infrastructure network, including road, rail and bus, facilities for pedestrians and cyclists, including provision for those with reduced mobility, and other users
3. Mitigate any significant adverse effects upon the transport network that arise from the development proposed.

In all development cases, schemes shall:

- i) be located where there are, or will be, at the time of development, choices in the mode of transport available and which minimise the distance people need to travel
- ii) provide appropriate vehicular parking, having regard to car ownership and the Council's adopted standards
- iii) not be detrimental to and, where possible, enhance road safety; and
- iv) not cause or contribute to significant highway problems or lead to traffic related environmental problems.

Development proposals shall be consistent with and contribute to the implementation of the agreed transport strategy, set out in the Gloucestershire Local Transport Plan **and Stroud Sustainable Transport Strategy**. Any transport assessment needs will be consistent with the requirements set out in the Gloucestershire Local Transport Plan **or the relevant Government guidance and regulations**.

Delivery Policy EI12 Promoting transport choice and accessibility

Sustainability through design

All developments should be planned in line with the Sustainable Transport Hierarchy. In the first instance, opportunities to reduce the need to travel should be maximised, including through the provision of ancillary facilities on-site and through measures which enable people to work from home, such as high speed broadband. Development should be located in areas which are already well served by public transport and have access to a range of local facilities within walking and cycling distance. Masterplans should be designed to prioritise active travel modes, including emerging mobility options such as e-bikes and e-scooters, over private car usage. Residential streets should be designed to a 20mph speed limit to enhance pedestrian and cycle safety.

Bus permeability and associated facilities should be incorporated into development proposals, where appropriate, and pedestrian facilities should be provided to ensure people can access bus services, either on or off-site. Shared mobility opportunities should be explored and accommodated through design, with the aim of reducing car ownership whilst maintaining personal mobility.

Delivering Transport Infrastructure

Where appropriate, new developments will be required to connect into the surrounding infrastructure and contribute towards new or improved walking, cycling and rail facilities within the District and the provision of an integrated public transport network across the District. Walking, cycling and public transport facilities will be required to be put in place as early as possible in development proposals to ensure that opportunities for sustainable travel are available to support early occupiers in establishing sustainable travel patterns.

Developers must take account of the proposals included within Stroud Infrastructure Delivery Plan, the Stroud Sustainable Transport Strategy, and the Gloucestershire Local Transport Plan. In appropriate circumstances, new development will be required to contribute towards these schemes. Contributions, where reasonable and viable, will be sought towards these strategic transport infrastructure schemes from major development proposals throughout the plan period. Proposals which are likely to prejudice the future development of strategic transport infrastructure will not be permitted.

Enhancing Accessibility

All development proposals should have full regard to the transport impact on the local and strategic highway transport network. Major development proposals, or those that are likely to have a significant impact on the local and/or strategic transport network, will be required to submit a Transport Assessment as well as a Travel Plan, to demonstrate that they have fully considered safe and suitable access by all modes of transport.

The Transport Assessment will be required to establish the transport impact of the development proposals in the absence of mitigation. Where a severe impact is identified, mitigation will be required. Mitigation should be proposed in line with the sustainable transport hierarchy, with measures to reduce car trips through demand management viewed favourably. Measures which increase traffic capacity should not be seen as the default mitigation mechanism and will be accepted only where residual traffic impact remains severe, or where there is a risk to safety, after sustainable transport mitigation measures have been accounted for.

The Travel Plan shall set out targets and measures for addressing travel demand through a package of measures. This will include maximising accessibility by sustainable transport modes, minimising traffic generation and mitigating the effects of additional traffic through a package of multi-modal measures which minimise the distance people have to travel. Travel Plans will be expected to include the offer of Personalised Travel Planning to all residents or users of proposed development. Any planning permission will require full implementation of the Travel Plan.

Parking Standards

Vehicular parking standards and principles for new development should be provided in accordance with adopted standards, as set out in Appendix 2 of this Local Plan. This includes a requirement for, or where the developer can adequately justify their own parking provision with evidence accompanying any planning application. Evidence will need to demonstrate that the level would not have a detrimental impact on the local road network.

New Policy: District Wide Mode-Specific Strategies

Stroud District Council will work with key partners including Gloucestershire County Council and Highways England to develop District-wide strategies to enhance sustainable travel opportunities for all. This will integrate with patterns of growth coming forward in the District, as well as establishing conditions for existing movement patterns to be accommodated in as sustainable a way possible. Strategies will include:

- District-Wide Walking and Cycling Strategy: To identify and accommodate both local and strategic movement patterns and opportunities, and prioritise investment in improvement

schemes to create a connected network. This Strategy should take account of technology such as e-bikes, providing opportunities for longer distance cycling to become available for a wider range of people, and plan for investment accordingly. The Walking and Cycling Strategy should inform Highways Maintenance programmes, as carriageway in a poor state of repair can disproportionately impact on cyclists.

- Shared Mobility Strategy: Establish a Shared Mobility Strategy with a goal of enabling a transition to a shared mobility transport system. The strategy should support a shift to reduce individual vehicle ownership and stimulate shared access of a cleaner, lower carbon, vehicle fleet and other sustainable transport options.
- Interchange Strategy: Opportunities may exist for a range of Interchange Hubs to be established on the edge of settlements and/or at strategic road connections, such as M5 Junctions and where the A38 meets distributor roads such as the A4135. Interchange Hubs would need to offer seamless multi-modal connectivity, facilitated by technology. Opportunities to develop such Interchange Hubs into Strategic Sites should be considered, although the relative merits of each option would need to be considered on a site-specific basis and in consultation with Highways England and Gloucestershire County Council. Interchange and Shared Mobility Strategies should be integrated.
- District-Wide Parking Strategy: This should consider both the charging and availability of public parking across the District. The primary objective should be to use parking as a policy lever to discourage car trips where viable sustainable alternatives exist. However, the strategy will need to recognise the rural context of parts of the District and the disparity in availability of sustainable alternatives across the District. The Strategy should consider all available tools, including parking charges, supply of off-street parking, and control of on-street parking. The Parking Strategy should extend to consider the impact of pavement parking on vulnerable pedestrians. This should include potential solutions to address this problem, including the use of Traffic Regulation Orders to enable enforcement by Local Authority.
- Public Transport Bus Corridor Strategy: This Strategy will identify and prioritise express bus corridors to deliver direct and attractive, limited stop services to key destinations, including rail stations. It should propose a programme of measures to include high frequency bus services, bus stop locations to tie into population centres and form focal points for rural area, and bus priority measures where necessary. Pump-prime funding for these measures will be sought from developer contributions. These corridors will provide an express movement function designed to be attractive in comparison with private car use for the same journey. The corridors would integrate with interchange hubs, and link with more local bus services and community transport.

Appendix 2 Parking Standards for Vehicles and Cycles

Vehicle parking:

1. The standards relate to uses defined in the Town and Country Planning (Use Classes Order) 1987.

2. For any use not included in the standards below, 1. General vehicle parking standards for Planning Use Classes are not specified by the SDC Local Plan. The number of parking spaces will be a matter for negotiation and assessed according to individual circumstances. The standards represent SDC's Policy position for parking levels for developments. Where a departure from Policy is sought, the proposed provision will need to be demonstrated to be suitable based on the following

- The accessibility of the development.
- The type, mix and use of the development.
- The availability of and opportunities for public transport.
- Local car ownership levels; and
- The need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.

2. Opportunities to improve the sustainable accessibility of the site, and for shared mobility solutions to reduce local car ownership, will be prioritised ahead of provision of parking above Policy levels as measures to accommodate travel demand for new development. Provision of excessive parking levels at new development will not be supported due to the risk of encouraging unnecessary car travel where viable sustainable alternatives exist.

3. All standards are based on gross floor area by external measurement unless stated to the contrary.

3. All car parking spaces (except disabled) shall be a minimum of 2.4m x 4.8m, with a minimum aisle width of 6m.

4. When required, lorry parking spaces will range between 13.5m x 6.3m to 17.5m x 7.4m depending on the types of vehicles anticipated.

5. Parking levels for mixed use developments will be assessed as a sum of the parking requirements of the individual elements of the scheme based on the standards, with consideration of the potential for linked trips, i.e. one trip accessing two or more parts of the development, to reduce the overall parking demand.

This also applies to ancillary uses such as an office use within an industrial development, or a bar open to non-residents within a hotel.

6. Parking Management Plans will be required for mixed use developments to demonstrate how the parking resource will be managed across the whole site to ensure that excess levels of parking are not available to an individual land use which could provide an incentive for private car use over sustainable travel. An appropriate balance will be sought between unallocated and allocated parking with the aim of minimising the level of parking required for the development overall.

7. The requirement to provide appropriate levels of parking apply standards apply to new developments or extensions and to changes of use. When considering an extension to an existing use the opportunity to for reduced operational minimum parking levels standards will be considered.

8. For residential development the allocated parking spaces shall be provided within easy walking distance of the dwellings they intend to serve.

9. The abbreviation FTE means 'full time equivalent' where used in these standards.

Disabled car parking bays:

(a) Disabled parking bays (dpb) should be provided in relation to publicly accessed parking at a ratio of 1 dpb per 10 conventional parking bays.

(b) Disabled parking bays should be large enough to facilitate access by wheelchair users, i.e. 3.6m x 4.8m, especially in public car parks. Only where space is limited will a smaller space (minimum 3.0m x 4.8m) or two adjoining spaces (of 2.4m x 4.8m each with a shared space between of 1.2m) be acceptable. A standard of 2.4m x 4.8m can be provided where the long side is left open for access.

(c) The disabled car parking bays should be located close to an entrance to the building, with the route from the space to the building capable of use by a disabled person. This may require the provision of ramps (maximum gradient 1:20) and convenient handrails.

(d) For pedestrian areas, bays should be within 50m of the destination.

(e) Each bay should have a zone for transfer from car to wheelchair.

(f) Each transfer zone should either serve two bays or be positioned in the corner of a parking area to avoid abuse by other drivers.

(g) Bays and transfer zones should be clearly marked and should display the British Standard "Disabled" symbol, both on the road surface and on a discreet, but clearly visible, signpost or wall.

(h) The bay should be level, without camber or flanking upstand kerbs.

(i) No bay, or access to it, should be so restricted in height as to make it inaccessible for cars carrying wheelchairs on roof racks.

Ultra Low Emissions Vehicles (ULEV)

The Office of Low Emissions Vehicles started a consultation in July 2019 on policies for electric charging points for residential and non-residential properties. At the time of writing, these policies are not adopted by the Government. Stroud District Council seeks to maximise opportunities to secure ULEV infrastructure through planning policy to assist meeting carbon neutrality objectives. ULEV policy will be whichever is the greater requirement of adopted government policy, or:

- Every new **residential** building with an associated car parking space will have a chargepoint. This also applies to buildings undergoing a material change of use to create a dwelling.

- Every **residential** building undergoing major renovation with more than 10 car parking spaces to have cable routes for electric vehicle chargepoints in every car parking space.
- Every new **non-residential** building and every **non-residential** building undergoing major renovation with more than 10 car parking spaces to have one chargepoint and cable routes for an electric vehicle chargepoint for one in five spaces.
- Every existing **non-residential** building with more than 20 car parking spaces should have at least one chargepoint from 2025

To be classified as a chargepoint for the purpose of policy compliance, each chargepoint must be a minimum 7kW and be at least Mode 3 or equivalent. It is recognised that innovations are coming to market that use different types of chargers and charging speeds, such as wireless and ultra-rapid charging, although these are unlikely to be used in residential settings. Policy specifically allows for equivalence with Mode 3 chargepoints to allow for future innovation to not be excluded where it provides an equal or better facility.

Cycle parking:

A minimum of 2 cycle parking spaces must be provided at any new non-residential development, however small. Transport Assessments will need to demonstrate that levels of cycle parking are appropriate to the development being proposed.

In addition to the required level of parking provision (which should be under cover and secure), strategically significant developments (i.e. those included in Table A) should also provide showers and lockers for cyclists.

The Council may also seek shower and/or locker facilities in other developments that generate large numbers of employees.

In town centres developers have the option of paying commuted sums in lieu of the required provision, for public cycle parking to be provided by the District Council, although there must be a demonstrable solution to the required level of spaces being provided prior to grant of planning permission.

The location of cycle stands shall be as close as possible to the destination served, in secure positions or open positions where surveillance by staff or the general public is a deterrent to theft. At any site where 10 or more spaces are provided, the stands should be located under cover, be lit and appropriately signed. The detailed design and lighting of such facilities must have regard to the locality and to the proposed development. In residential development garages and rear garden space (for sheds etc.) will be acceptable as cycle storage provision. In flats developments secure communal space should be provided. Where, due to specific circumstances, e.g. small development, access restrictions etc., the amount of car parking is reduced or waived, no reduction shall be made in the number of cycle spaces to be provided.

Table A:

Car parking standards for strategically significant land uses

This table will be deleted.

Table B:

Car parking standards for other land uses

This table will be deleted.

Table C:

Minimum cycle and motorcycle parking standards

This table will be retained.

Land Use	Car parking
A1 Food retail	1/60 sq m
A1 Non-food retail	1/120 sq m
A2 Professional services	1/166 sq m
A3 Public House/Restaurant	1/26 sq m
B1 (a) and (b) Office and R&D	1/166 sq m
B1 (c) /B2 Industrial	1/330 sq m
B8 Warehousing/distribution	1/330 sq m
C1 Hotel	0.15/employee
C1 Hostel	0.15/employee
C2 Hospital	0.15/employee
C2 Nursing Home	0.15/employee
C2 Boarding School	0.15/employee + 0.15/student
C3 Dwelling houses/flats	1/dwelling
C3 Sheltered Housing	0.15/employee
D1 Doctor's/Vet's Surgery/Health Centre	0.15/employee
D1 School/Crèche/Day Centre	0.15/employee + 0.15/student
D1 Higher/Further Education	0.15/employee + 0.15/student
D1 Art Gallery, museum, library	1/300 sq m public area + 0.15/employee
D1 Public Hall/Place of Worship	1/20 seats or 1/26 sq m
D2 Cinema, Concert Hall, Night Club	1/20 seats or 1/26 sq m
D2 Leisure/Sports Centre/Fitness Club	1/66 sq m

Definitions:

- Floorspace figures (in sq m) refer to Gross Floor Area.
- Employees refers to the total of full-time equivalent employees, e.g. a person employed half-time would count as 0.5.

Appendix E STS Interventions Mode Shift Framework

	Ref.	Proposed Sustainable Travel Interventions	Scale of Cost (1-Lowest to 5-Highest)	Development				Background				
				Trip Type	Percentage reduction in car trips		Notes	Trip Type	Percentage reduction in car trips		Notes	
					Min. (For Modelling)	Max. (Target, where different)			Min. (For Modelling)	Max. (Target)		
Strategic Sites												
All Strategic Sites	A	Travel Planning, internalisation, reducing the need to travel and facilitating home working. The combination of these measures will differ between sites, with each site expected to demonstrate how they will achieve a blanket mode shift/traffic reduction in addition to targeted measures as below.	1	All Development Trips	6%	10%	To be applied to trip matrices before the targetted measures set out below.				Some measures will benefit surrounding residential areas such as reducing distances to facilities could increase propensity for active travel. However no reduction has been applied to background trips.	
Land at Whaddon - 2,500 dwellings (Gloucester Fringe)	1	Provision of a multi-modal transport hub adjacent to the A4173 to allow interchange between sustainable modes	4	Trips to/from Gloucester City Centre. E.g. 2km from westgate st.	15%		Improved opportunities for sustainable travel into Gloucester	Trips past Whaddon towards Gloucester (A4173)	5%		This would be reliant on disincentive for driving in Gloucester	
	2	Local Measures: Modal filter on Naas Lane, pedestrian/cycle connection improvements, bus route through site.	2	Local trips to/from Waterwells area.	10%.		Priority for sustainable modes over car trips for local journeys.				Whilst there may be some local benefits it is not considered robust to apply background trip reductions.	
South of Hardwicke - 1,200 dwellings (Gloucester Fringe)	3	Contributions to sustainable transport measures on the A38 corridor, including improvements to strategic bus services	2	Trips to/from Gloucester city centre, and to/from destinations along the A38 and A419 within Stroud District. Include buffer 800m and city centre definition.	5%/10%		Higher % reduction in trips to/from Gloucester than south on A38. 10% reduction to Gloucester City Centre, 5% on trips elsewhere				See corridor package - not stated here to avoid double counting	
Eco Park M5 Junction 13 - 10ha (Stonehouse Cluster)	4	Contributions and support to sustainable transport measures on the A38 and A419 sustainable transport corridors	2	Included in "bus services" below	Included below		Included below.				See corridor package - not stated here to avoid double counting	
	5	Dedicated shuttle bus service between site and Cam and Dursley and Stonehouse rail stations	3	Trips to/from Gloucester, Cheltenham, Bristol, Yate and Swindon. 2km buffer from rail stations.	5%		Mode shift from car to rail for longer distance trips. 5% applied due to number of interchanges	None			Minimal potential to pick up background trips	
	6	Improvements to bus services to connect the site with Stonehouse, Stroud, Gloucester and other destinations	2	Commuter trips from Stonehouse, Stroud and Gloucester, and intermediary locations along the A38 and A419. buffers and define destinations	10%, with 5% for agreed partial zones ("Yellow")			Mode shift from car to sustainable modes on these corridors.				See corridor package - not stated here to avoid double counting
		Measures need to be accompanied with robust approach to parking management which limits access to parking for those who do not "need" to drive.										
Stonehouse North West (Standish within Stonehouse Cluster) - 650 dwellings	7	Contributions and support to sustainable transport measures on the A38 and A419 sustainable transport corridors	2	Included below							See corridor package - not stated here to avoid double counting	
	8	Contributions to enhanced bus service frequencies to key destinations including Stroud, Stonehouse, Gloucester, and Cam and Dursley Station	2	Trips to/from Stonehouse, Stroud and Gloucester, and intermediary locations along the A38 and A419	8%, 4% for "Yellow" zones.		Slightly lower than other corridor sites due to distance from the corridor and split of provision between LWoS spine road and A419.				See corridor package - not stated here to avoid double counting	

New settlement at Wisloe, Slimbridge - 1,500 dwellings & 5ha (Berkley cluster)	9	Contributions and support to public transport measures on the A38, potentially including diversion into the site.	2	Trips along the A38 including to/from Gloucester City Centre	10%		Intended to support high frequency express services				See corridor package - not stated here to avoid double counting
	10	Pedestrian/cycle connections to Cam and Dursley station	3	Trips to/from Gloucester, Cheltenham, Bristol, Yate. 2km buffer from rail stations.	10%	20%	Supports access to Rail for longer distance trips. Max target would depend on significant improvement to provision.	Trips between local area west of M5 e.g. Cambridge/Slimbridge and Gloucs, Chelt, Bristol, Yate and Swindon	5%		Likely to benefit a relatively low number of trips due to sparsely populated origin
	11	Sustainable 'spine' through Wisloe - Cam - Dursley i.e. A4135 corridor measures	2	Local Trips to/from Cam and Dursley	10%, 5% for "Yellow" zones.		Opportunity to capture local leisure/employment trips				
Cam North West - 700 dwellings (Cam & Dursley cluster)	12	Contributions and support to sustainable transport measures on the A38, notably bus services	2	Trips along the A38 including to/from Gloucester City Centre	6%, 3% for "yellow" zones		Intended to support high frequency express services. Less %reduction than Wisloe due to distance from A38				
	13	Contributions towards A4135 corridor measures	2	Local Trips to/from Cam and Dursley	10%		Opportunity to capture local leisure/employment trips				
New settlement at Sharpness - 2,400 dwellings & 10ha (Berkley Cluster)	14	Direct public transport services to key destinations, including Bristol, Gloucester and employment nodes	3	Trips to/from central bristol, central gloucester	20%	30%	Service would need to be established early and be direct. This would need to be an exemplary service and the modelled value incorporates potential for the rail service to be delivered.	Trips between Sharpness and Bristol / Gloucester	15%	20%	Lower proportion as trip patterns established and home locations further from central pick up point.
	15	Potential re-opening of the Sharpness railway branchline for passenger services (including to Gloucester)	5	Trips to/from central gloucester	Not to be included in model - feasibility	40%	NB this would supersede the direct public transport services measure above.	Trips between Sharpness and Gloucester	Not to be included in model -	30%	Lower proportion as trip patterns established and home locations further from central pick up point.
	16		Trips to/from Bristol, Stroud, Cheltenham, and longer distance cities	Not to be included in model - feasibility	30%	Creates direct access to longer distance rail services, likely with a	Trips to/from Bristol, Stroud, Cheltenham, and	Not to be included in model -	20%	Lower proportion as trip patterns established and home locations further from central pick up point.	
	17	Cycle route to Stroud from Sharpness development	3	trips to/from Stroud and intermediary destinations e.g. Stonehouse	0%	5%	Distance is likely to be a barrier, although ebikes have the potential to be an enabler	Trips between Stroud and Sharpness	0%	5%	Distance is likely to be a barrier, although ebikes have the potential to be an enabler

Movement Corridors											
A38		Modal filters	4								
		Rapid bus / coach services to key destinations such as Bristol	3								
		Improved bus frequency, bus stop infrastructure and bus priority	3								
		Northern MetroBus extension	5								
	18	Low Investment	2						Trips using A38	5%	
	19	Medium Investment	3						Trips using A38	10%	
20	High Investment	4						Trips using A38	15%	Model 15% to reflect High investment scenario and potential interchange with other corridors.	
A419 / B4008		Cycle access improvements between Eastington and Chalford	2						Trips between Eastington and Chalford using A419		
		Cycle access improvements to NCR 45, Stroud	2						Trips to Stroud (and Nailsworth) using A419 and A46		
		Cycle access improvements for Cainscross roundabout, Stroud	2						Trips through Cainscross Roundabout		
		Improved provision for pedestrians and cyclists on the A419 Ebley Rd corridor	2						Trips using Ebley Road (through Ebley)		
		Improved bus frequency on A419 / B4008 between Stroud, Stonehouse and Gloucester (and, where appropriate, bus stop improvements and bus priority)	3						Trips between Stroud, Stonehouse and Gloucester (using A419 and B4008)		
	21	Low Investment	2						Trips using A419	5%	
	22	Medium Investment	3						Trips using A419	10%	
23	High Investment	4						Trips using A419	15%	Model 15% to reflect High investment scenario and potential interchange with other corridors.	
A4135		Completion of Cam - Dursley - Uley Greenway	2						Trips between Cam, Dursley and Uley using A4135		
		Removing pedestrian and cycle pinchpoints along full-length of corridor	2						Trips on A4135		
		Increase in bus frequency and improved stop infrastructure, including improved connections to Cam and Dursley railway station	3						Trips on A4135 between Cam, Dursley and Railway Station		
		Bus priority measures along the corridor	3						Trips on A4135 between Cam, Dursley and Railway Station		
		Multi-modal interchange facilities at the A38 and Cam and Dursley Station	3						Trips on A38 and towards Cam and Dursley Railway Station		
	24	Low Investment	2						Trips using	5%	
	25	Medium Investment	3						Trips using A4135	10%	
26	High Investment	4						Trips using A4135	15%	Model 15% to reflect High investment scenario and potential interchange with other corridors.	

Stroud / Stonehouse - Bristol.	27	Improved public transport services between Stroud, Stonehouse and Cam and Dursley Station	3						Trips between Stroud/Stonehouse and Bristol, Gloucester, Yate and Cam and Dursley	5%		2 stage journey with bus and rail. This option has been modelled in STS Scenario
	28	Express bus services between Stroud and Bristol (with a potential interchange in the vicinity of M5 Junction 13)	3						Trips between Stroud/Stonehouse and Bristol	10%		No interchange but limited catchment
	29	New rail station south of Stonehouse on the Bristol to Birmingham line (note: a number of options are being considered as part of a wider aspiration to provide such a station between Bristol and Gloucester)	5						Trips between Stroud/Stonehouse and destinations on Bristol to Birmingham line including Bristol, Cheltenham	10%		Potential to include destinations further afield, e.g. Exeter and Manchester, but likely to be limited numbers
Towns												
Stroud	30	Improvements to Stroud station, including potential for an integrated transport hub	4						Trips to / from Stroud to existing rail destinations e.g. Swindon, Gloucester, Reading, London	5%		Improved access to rail.
	31	Walking and cycling improvements in Stroud Town Centre	3						Local trips in Stroud	5%		Mode shift for local trips
Cam and Dursley	32	M5 pedestrian / cycle overbridge to Cam and Dursley Station	4					Included in Measures above	Trips to / from Cam and Dursley Station			Included in A4135 corridor measures
	33	Extension and improvement to Cam and Dursley greenway	2					Included in Measures above	Trips between Cam, Dursley and Uley using A4135			Included in A4135 corridor measures
	34	Improved walking and cycling links connecting with Cam and Uley	2					Included in Measures above	Trips between Cam and Uley			Included in A4135 corridor measures
General												
	35	Policy Interventions Package	2	All Development	0%	2%	In addition to measures above	Trips within Stroud DC			0%	Limited potential to influence existing trips
	36	Mobility Behaviours	2	All Development	0%	2%	In addition to measures above	Trips within Stroud DC			1%	
	37	Public Transport packages, e.g. RTI, smart ticketing	3	All Development	0%	1%	In addition to measures above	Inter and intra-urban trips within Stroud and to/from Bristol/Gloucester			1%	
	38	Rail service improvements	4					Long distance trips			1%	
	39	Cycle access improvements to Gloucester & Sharpness Canal towpath, Gloucester	2					Potential to benefit Sharpness and Hardwicke residents but arguably could be included in the PT mode shift.	Trips between Sharpness and Gloucester (including destinations along the canal route)			2%

Additional Notes

Trip rates used for each development have accounted for internalisation due to complementary land uses and sustainability benefits relating to location.

No additional reductions are proposed for "standard" measures such as Travel Planning and masterplans laid out to encourage sustainable travel.

This is not an exhaustive list of measures included in the STS but is designed as an exercise to reasonably identify the potential for mode shift to occur as a result of key measures or packages of measures.

This framework has been developed iteratively and been compared against the actual numbers of trips that these would relate to, through the SATURN exercise.

Measures need to be considered in combination with disincentive for driving, e.g. parking charges, congestion, parking availability etc

Two rates of percentage reduction have been defined. The minimum reduction represents a robust assumption and should be used for modelling purposes. The maximum reduction represents the potential mode shift that could be achieved by an intervention and can be considered a target if implemented.

Percentage reductions have been agreed with MM, SDC, HE, &GCC.

Trip types have been defined with reference to Mott MacDonalds SATURN model zones.

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