

_EXAMINATION OF THE STROUD DISTRICT LOCAL PLAN REVIEW

INSPECTORS' MATTERS, ISSUES AND QUESTIONS

Response of Tritax Symmetry (Gloucester) Limited

Matter 11 Infrastructure Provision and Viability

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Issue 11 – Does the Plan set out a positively prepared strategy for infrastructure provision to meet the Plan’s development strategy and is this justified, effective and consistent with national policy? Are the policies relating to infrastructure sound? Is infrastructure provision viable?

Matter 11a Infrastructure – general questions

Infrastructure and Developer Contributions – Core Policy CP6

The policy seeks ‘to ensure that infrastructure will be in place at the right time to meet the needs of the District and to support the development strategy.’

Matter 11b Transport

Since the submission of the Plan and the production of the Council’s Transport Topic Paper (EB6), technical updates on transport and viability have been published.

Delivery and viability

1. Does the viability evidence supporting the Plan make realistic assumptions about costs?
2. The Transport Funding and Delivery Plan (July 2022) (TFDP) identifies three transport mitigation packages. These are:

M5 Junction 12:

- improvements to M5 J12 (a new grade-separated junction);
- Improvements to the A38 / A430 / B4008 ‘Crosskeys’ Roundabout; and
- Improvements to the B4008 / Stonehouse junction.

Are these mitigation measures necessary and justified? Do they represent a comprehensive set of mitigation measures required to support the levels of growth set out in the Plan?

3. As regards the proposed dualling of the B4008 and new park and ride:
 - a. Should these be included in the M5 J12 mitigation package?
 - b. Is it reasonable and realistic to expect the dualling of the B4008 to be delivered as part of the Javelin Park extension site? Has a scheme been identified and costed to deliver this piece of infrastructure? Are there any implications for the delivery of the Javelin Park extension site? For example, is it necessary for this scheme to be delivered at a particular stage of the development and is that achievable?
- 11.1 Any potential queue increase on the B4008 arm will be as a result of new trips on the network and capacity constraints of the roundabout. Traffic levels on the B4008 are not solely generated by PS43 Javelin Park Extension. All new development and growth in traffic will be responsible for any increase in queue length experienced on the B4008 arm itself. Traffic on the B4008 will experience reduced opportunity to ‘gap-accept’ at J12, due to increased traffic flow (generated by all planned growth in the local area) around the circulatory carriageway of the roundabout.
- 11.2 There is a distinct inter-relationship (in capacity terms) between the volume of priority-receiving, vehicular trips orbiting the circulatory carriageway of the roundabout and the total traffic flow on the approach arm, which will be required to pick an appropriate gap before entering the junction. Any increased queue on the B4008 arm can, therefore, be attributed to every draft SDLP allocation site that distributes trips through J12 (regardless of whether they travel around the circulatory carriageway in isolation or originate from south of the intersection and use the B4008 approach). Any upgrade to the B4008 arm of the roundabout should be considered as part of the overall M5 J12 Mitigation Package and all allocated development should pay a proportionate contribution based on the

- share of additional trips made for works required to offset the impact of that development.
- 11.3 The submitted transport evidence base (EB61 Traffic Forecasting Report, March 2021) which underpins the SDLP initially considered the traffic generating potential of a 9Ha allocation for B1/B2/B8 development upon PS43 Javelin Park Extension and concluded that no dualling scheme on the B4008 was necessary to support the 266 two-way trips (peak hour average) which would use the highway link.
- 11.4 An updated version of the same technical report (EB98 Traffic Forecasting Report Addendum, April 2022) then gave further consideration the traffic generating potential of a 27Ha allocation for B1/B2/B8 development upon PS43 Javelin Park Extension and concluded that a dualling scheme on the B4008 may be necessary to support the 796 two-way trips (peak hour average) forecast to use the highway link in that scenario. The evidence base did, however, acknowledge that further modelling work would be required to confirm this position, once more refined details of any potential allocation were known in the future.
- 11.5 The live planning application for development of site PS43Javelin Park Extension seeks to deliver up to 105,000sq.m of B8 floorspace across the 27Ha parcel of land, which is forecast to generate some 111 two-way trips (peak hour average) and is significantly below the original threshold at which no dualling scheme was considered necessary by Stroud District Council. This position has been discussed with Highway Officers of the Gloucestershire County Council, who have confirmed their opinion that the traffic impact of a development of this scale and nature does not justify the requirement to provide a dual carriageway upgrade to the B4008 corridor between the PS43 Javelin Park Extension site and M5J12 intersection in order to support its allocation within the draft SDLP.
4. The TFDP sets out indicative costs for the three schemes (page 5). For the M5 J12 scheme this is £9,437,500; the M5 J14 scheme is £27,246,837; and the A38 package is £3,812,500. Are these indicative costs realistic and do they provide a reasonable basis upon which to consider the viability of delivering the growth set out in the Plan?
5. The TFDP states that following discussions with National Highways, neither the M5 J12 or M5 J14 schemes are likely to attract funding from the Road Infrastructure Strategy (RIS) in the foreseeable future. Is that assumption still valid? Have all external sources of national funding for these schemes been fully explored?
6. In the absence of national funding being available, the TFDP sets out a proposed apportionment methodology which would seek to take account of external growth from neighbouring authorities (including Gloucester, Cheltenham, Tewkesbury and South Gloucestershire). The TFDP goes on to explain that at this stage, the scale, location and nature of growth in these Districts is uncertain due to their respective Plan's being at an earlier stage of development. Nevertheless, modelling assumptions have been made in order to take account of growth from neighbouring Districts.
- a. The TFDP distributes the growth apportioned for Stroud District to 12 site allocations. Is the scale and distribution of costs reasonable? Is there agreement that the costs set out are reasonably accurate? Have viability considerations been appropriately considered?
- b. The TFDP states that sites delivering over 150 dwellings were considered capable of contributing towards strategic mitigation packages. How was this threshold set? Is it justified?
- c. Are any allocations or development reliant on the delivery of any of these schemes at a particular point during the plan period? For example we note comments from National Highways that improvements to Junctions 12, 13 and 14 of the M5 are likely

to be required early in the plan period. If so, is a lack of identified funding likely to affect delivery assumptions in the Plan?

- 11.6 WSP were appointed by Tritax Symmetry (Gloucester) Limited to advise on a reasonable, justified, and lawful contribution to off-site highway works, including the M5 Junction 12 Mitigation Package, as a result of their planning application, S.21/2579/OUT, for 105,000sqm of B8 warehouse or distribution use. The site PS43 Javelin Park allocated for office, B2 and B8 employment.
- 11.7 The Transport Assessment (as amended) submitted in support of the planning application has been accepted by National Highways (NH). The TA found that the proposed development would have negligible impact on M5 Junction 12 and that no works were required to mitigate impact on strategic network highway assets.
- 11.8 NH have withdrawn their holding objection to the planning application and are recommending conditions which protect their soft estate. In making their recommendation NH accept “the development in isolation will not result in unacceptable traffic impact” on J12 and the TA is “robust” as it excluded the MOVA control mitigation, and traffic growth is based on pre-covid and therefore “worst case”.
- 11.9 NH say that if the planned growth in the SDLPR comes forward strategic improvement to M5 Junction 12 would be required and the development of Symmetry Park Gloucester should provide a “proportionate contribution”.
- 11.10 As part of the preparation of the Technical Note (TN) the following documents supporting the Stroud District Local Plan Review (SDLPR) have been reviewed:
- EB61 – Traffic Forecasting Report (March 2021);
 - EB98 – Traffic Forecasting Report Addendum (April 2022);
 - EB109 – Transport Funding and Delivery Plan (July 2022); and
 - EB110 – Infrastructure Delivery Plan (IDP) Addendum Report (August 2022).
- 11.11 The policies map has also been reviewed to obtain an understanding of other sites allocated within the Draft SDLPR.
- 11.12 Much of the evidence base, prepared to inform the SDLPR, has been prepared on the basis of the draft allocation for the Symmetry Park, Gloucester site, which was allocated under policy PS43:
- “Land at Javelin Park (27 hectares), as identified on the policies map, is allocated for office, B2 and B8 employment uses.”*
- 11.13 The development proposal at Symmetry Park, Gloucester (upon the PS43 Javelin Park site) does not include office or B2 land use and is for a:
- “Hybrid planning application for employment development for B8 (Storage or Distribution) Uses, ancillary offices, energy centre, landscaping, fitness trail and amenity areas and new access. i) Outline for whole site (with all matters reserved except access) ii) Full application for Units 1, 2 for B8 (Storage or Distribution) Uses and the energy centre (all matters submitted).”*

Local Plan Evidence Base

M5 Junction 12 Local Plan Funding Requirements

- 11.14 Document EB109 ‘Transport Funding and Delivery Plan’ (TFDP) comprises part of the SDLPR evidence base and identifies funding sources for major transport mitigation within the region. These mitigation schemes include the package deemed necessary at the M5 Junction 12 which includes:
- Improvements to M5 J12, comprising a new grade separated junction;
 - Improvements to the A38 / A430 / B4008 ‘Crosskeys’ roundabout; and
 - Improvements to the B4008 / Stonehouse junction.

- 11.15 The indicative costs of these schemes, as detailed in Document EB110, Infrastructure Delivery Plan (IDP) EB110, which supports the SDLPR are set out in Table 1 below. Within the TFDP/EB109 it is set out 38% of the funding should be from SDLPR allocations, with the remainder contributed by development in neighbouring Authority catchments.

Table 3: IDP/EB110 M5 J12 Scheme Costs

Mitigation Package	Mitigation Item	Scheme Cost	Source
M5 J12	New Grade Separated Junction	£6,250,000	IDP/EB110
	Cross keys Roundabout Improvements	£3,125,000	IDP/EB110
	Improvements to B4008 / Stonehouse	£62,500	IDP/EB110
	Total	£9,437,500	IDP/EB110

- 11.16 The TFDP/EB109 goes on to state that only developments which deliver over 150 dwellings or 5ha of employment land are considered capable of contributing to the mitigation packages. These developments mainly comprise of the top 10 trip generating SDLPR sites based on calculations undertaken within EB98 'Traffic Forecasting Report Addendum' which includes trip generation and distribution forecasts (discussed further in this report). Smaller sites and their trip generation are not expected to make any contribution to mitigation of their impact.
- 11.17 The impacts of each of the considered developments on the M5 Junction 12 (as detailed within the TFDP/EB109) is summarised in Table 2 below.

Table 4: SDLPR Allocations, TFDP/EB109 M5 J12 contributions

Ref	Development	SDLPR Allocations	M5 J12 Impact	M5 J12 - Sifted	Proportion of SDLPR funding
G1	South of Hardwicke	1,350 dwellings, 3FE primary school (incorporating early years' provision)	22%	26%	9.80%
G2	Land at Whaddon	At least 3,000 dwellings, 8 plots for travelling showpeople 3FE primary school 2FE primary school (both incorporating early years' provision) site for a new surgery	13%	15%	5.60%
PS19a	Northwest of Stonehouse	700 dwellings, 8 plots for traveling showpeople 5 hectares of office, B2 and B8 employment land and ancillary uses to reflect the identified	2%	0%	0%

		sectoral needs of the District and local area; 1.5 form entry primary school (incorporating early years' provision)			
PS20	M5 J13 (Eco Park)	Sports stadium, 10 hectares of business uses office, B2, B8 and ancillary uses, Care village	6%	7%	2.50%
PS24	West of Draycott	900 dwellings, 2 form entry primary school (incorporating early years' provision) o	1%	0%	0%
PS25	East of River Cam	180 dwellings	1%	0%	0%
PS30	Hunts Grove Extension	750 dwellings, local centre of sufficient scale to meet the day-to-day needs of the Hunts Grove new community as a whole, incorporating local retail and community uses, primary school of sufficient scale to meet the needs of the Hunts Grove new community	18%	21%	8%
PS34	Sharpness Docks	7 hectares employment uses, a mix of tourism, leisure and recreational uses, 300 dwellings, hotel, holiday lodges and fixed camping uses, expanded marina basin including ancillary retail and food and drink uses, tourism and recreational related facilities, including a community football pitch, community gardens, informal green space and equestrian development	2%	0%	0%
PS36	New Settlement at Sharpness	2,400 dwellings, 10 hectares of B1, B2 and B8 employment land and ancillary employment uses, 7FE primary school (incorporating early years' provision)	5%	0%	0%

PS37	New Settlement at Wisloe	1,500 dwellings, 5 hectares of office, B2 and B8 employment land and ancillary employment uses, 3FE primary school (incorporating early years' provision).	3%	0%	0%
PS43	Javelin Park	27 hectares office, B2 and B8 employment uses	27%	32%	12.10%
PS47	Land West of Renishaw New Mills	10 hectares for office, B2 and B8 employment uses	1%	0%	0%

Allocations in blue do not contribute to infrastructure.

- 11.18 As previously mentioned, the table above does not include sites allocated within the SDLPR which comprise fewer than 150 dwelling or 5ha or less of employment space.
- 11.19 As shown in the table, allocations which have more than 150 dwellings or 5ha of employment but have less than a 5% impact on the M5 Junction 12 have been removed and trip generation reassigned to allocations with a greater than 5% impact. Approximately 21% of the overall financial contribution has been moved to SDLPR allocations with an impact greater than 5% in total. This represents a significant level of capital funding which is being requested from development sites to mitigate impact arising from other development.
- 11.20 Based upon the methodology adopted within the SDLPR evidence base, the following allocation sites, which include employment, are not expected to contribute to M5 Junction 12 funding,
- Northwest of Stonehouse - Approximately 5 hectares of office, B2 and B8 employment land and ancillary uses
 - Sharpness new settlement - 10 ha employment
 - Sharpness Docks South - 7 hectares industrial and distribution uses
 - Wisloe new settlement - 5 ha employment
 - Renishaw New Mills - 10 hectares office, B2 and B8 employment uses
- 11.21 It is noted that PS32 Quedgeley East Extension was not included within the original evidence base contribution calculations towards M5 Junction 12 Mitigation Package. While PS32 refers to an allocation of 5ha, the site measures some 12ha in size. Based upon the developable proportion of land likely to be achievable and trip rates agreed for the existing development at Quedgeley East, it is evident that any future development of the extension site is likely to generate a significant volume of trips which will directly impact M5 Junction 12. The site should therefore be considered within the funding calculations for future mitigation works. The TN however assesses PS32 based on the 5ha allocation.
- 11.22 The following section considers the methodology used to determine the above contributions and whether the SDC calculated contribution of 12.1% assigned to PS43 Javelin Park is appropriate.

Trip Generation

- 11.23 The funding calculations undertaken in the TFDP/EB109 adopt the trip generations for each development assumed within the Traffic Forecasting Report (EB61), which assumes that the PS43 Javelin Park development will comprise an even split of B1/B2/B8 floorspace. It therefore, significantly overestimates the number of trips which will be generated from a B8 development.
- 11.24 The trip generation figures assumed within the calculations (as taken from EB98 – Traffic Forecasting Report Addendum (April 2022)) are shown in Table 3 below.

Table 5 Allocation Assumed Trip Generation SDLPR TFDP/EB109

Development	AM Peak			PM Peak		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
PS43 Javelin Park B1, B2, B8) trip gen	694	176	870	120	602	722

- 11.25 For comparison the trip generation figures presented within the submitted Symmetry Park, Gloucester TA (based upon a maximum possible floorspace of 105,000sqm GFA) are shown in Table 4 below.

Table 6: B8 Planning Application Trip Generation

Development	AM Peak			PM Peak		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
TA - B8 accepted trip rates,	0.066	0.040	0.106	0.029	0.076	0.105
TA – BA accepted trip gen	69	42	111	30	80	110

- 11.26 It should be noted the trip rates within the Symmetry Park Gloucester TA are higher than those in the Traffic Forecasting Report/EB61, which underpins the evidence base of the SDLPR. The trip rates adopted for B8 development in the Traffic Forecasting Report/EB61 and the trip generation this would result in for Symmetry Park, Gloucester are summarised in Table 5 below.

Table 7: SDLPR Trip Rates - Symmetry Park Gloucester Trip Generation

Development	AM Peak			PM Peak		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
PS43 Javelin Park – B8 SDLPR trip rates	0.072	0.026	0.098	0.032	0.087	0.119

PS43 Javelin Park – SDLPR trip gen	76	27	103	34	91	125
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11.27 Table 6 shows the previously forecast number of trips generated by each SDLPR allocation site regardless of size. To ensure consistency with the other sites, the trip rates from the SDLPR forecasting report have been adopted for PS43 Javelin Park.

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Table 8: B1/B2/B8 Javelin Park / All B8 Javelin Park

443					Revised SDLPR forecast correctly based upon B8 at Javelin Park				
Ranking	Site Ref	Site	Peak Average	% SDLPR Trips	Ranking	Site Ref	Site	Peak Average	% SDLPR Trips
1	G2	Land at Whaddon	1731	18.1%	1	G2	Land at Whaddon	1731	19.5%
2	PS36	New settlement at Sharpness	1627	17.0%	2	PS36	New settlement at Sharpness	1627	18.3%
3	PS37	New settlement at Wisloe	904	9.5%	3	PS37	New settlement at Wisloe	904	10.2%
4	G1	South of Hardwicke	805	8.4%	4	G1	South of Hardwicke	805	9.1%
5	PS43	Javelin Park	796	8.3%	5	PS20	M5 Junction 13	644	7.3%
6	PS20	M5 Junction 13	644	6.7%	6	PS19a	Northwest of Stonehouse	558	6.3%
7	PS19a	Northwest of Stonehouse	558	5.8%	7	PS24	West of Draycott	505	5.7%
8	PS24	West of Draycott	505	5.3%	8	PS30	Hunts Grove extension	448	5.1%
9	PS30	Hunts Grove extension	448	4.7%	9	PS34	Sharpness Docks	435	4.9%
10	PS34	Sharpness Docks	435	4.6%	10	PS47	Land west of Renishaw New Mills	266	3.0%
11	PS47	Land west of Renishaw New Mills	266	2.8%	11	PS32	South of M5 / J12	148	1.7%
12	PS32	South of M5 / J12	148	1.5%	12	PS43	Javelin Park	114	1.3%
13	PS25	East of River Cam	101	1.1%	13	PS25	East of River Cam	101	1.1%
14	PS02	Brimscombe Port	88	0.9%	14	PS02	Brimscombe Port	88	1.0%
15	PS33	Northwest of Berkeley	74	0.8%	15	PS33	Northwest of Berkeley	74	0.8%
16	PS05	East of Tobacconist Road	47	0.5%	16	PS05	East of Tobacconist Road	47	0.5%
17	PS06	The New Lawn, Nailsworth	47	0.5%	17	PS06	The New Lawn, Nailsworth	47	0.5%
18	PS10	Railway land / car parks, Cheapside	45	0.5%	18	PS10	Railway land / car parks, Cheapside	45	0.5%

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19	PS35	Land at Focus School, Wansell	43	0.5%	19	PS35	Land at Focus School, Wansell	43	0.5%
20	BERO 16/17	Land at Lynch Road, Berkeley	37	0.4%	20	BERO 16/17	Land at Lynch Road, Berkeley	37	0.4%
21	PS38	South of Wickwar Road	28	0.3%	21	PS38	South of Wickwar Road	28	0.3%
22	PS12	Police station / Magistrates court, Parliament Street	26	0.3%	22	PS12	Police station / Magistrates court, Parliament Street	26	0.3%
23	PS01	Brimscombe Hill	24	0.3%	23	PS01	Brimscombe Hill	24	0.3%
24	PS44	Northwest of Whitminster Lane	19	0.2%	24	PS44	Northwest of Whitminster Lane	19	0.2%
25	PS46	Land west of School Lane	19	0.2%	25	PS46	Land west of School Lane	19	0.2%
26	PS11	Merrywalks Arches, Merrywalks	15	0.2%	26	PS11	Merrywalks Arches, Merrywalks	15	0.2%
27	PS16	South of Leonard Stanley Primary School	15	0.2%	27	PS16	South of Leonard Stanley Primary School	15	0.2%
28	PS41	Washwell Fields	12	0.1%	28	PS41	Washwell Fields	12	0.1%
29	STRO 65	Beeches Green, Stroud	12	0.1%	29	STRO 65	Beeches Green, Stroud	12	0.1%
30	PS42	Land off Dozule Close	9	0.1%	30	PS42	Land off Dozule Close	9	0.1%
31	PS45	Land west of Upton's Gardens	6	0.1%	31	PS45	Land west of Upton's Gardens	6	0.1%
32	HARO 17	Land at Sellars Road, Hardwicke	6	0.1%	32	HARO 17	Land at Sellars Road, Hardwicke	6	0.1%
33	PS17	Magpies site, Oldends Lane	6	0.1%	33	PS17	Magpies site, Oldends Lane	6	0.1%
34	PS28	Land off Prospect Place	6	0.1%	34	PS28	Land off Prospect Place	6	0.1%

11.28 As shown by Figure 1 below, a number of major sites within the SDLPR are within the locality of M5 Junction 12, which include:

- PS32 South of M5 / J12 – 5Ha of B1/B2/B8 at Quedgeley East;
- PS30 Hunts Grove Extension – additional 750 dwellings at Hunts Grove;
- G1 South of Hardwicke – 1,350 dwellings and associated amenities;
- G2 Land at Whaddon – 3,300 dwellings and associated amenities;
- PS19a Northwest of Stonehouse – 700 dwellings and associated amenities; and
- PS20 M5 Junction 13 - mixed use development; 10ha B1/B2/B8, Sports Stadium (including hotel), Care Village.

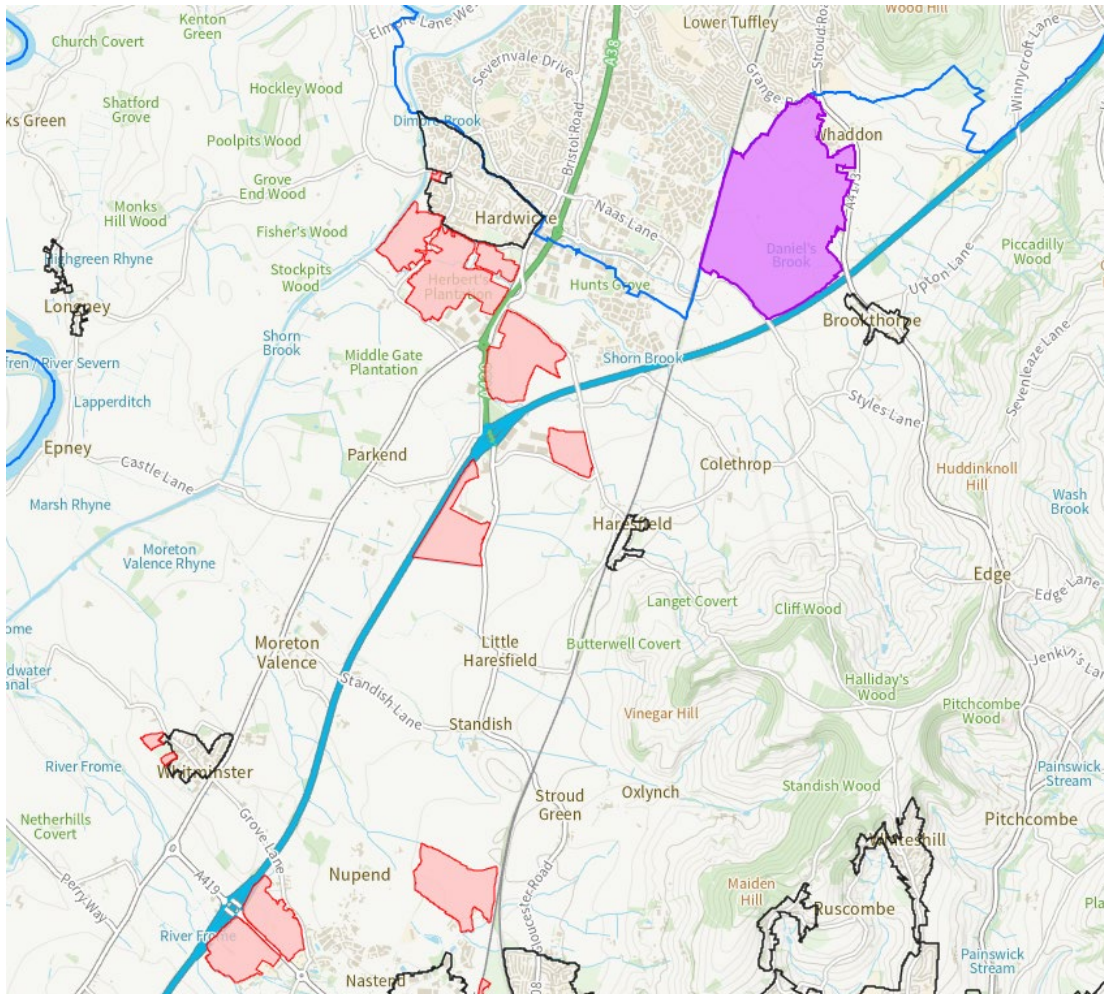


Figure 1: M5 J12 SDLPR Allocations

11.29 The trip generation for each of these developments, based on the SDLPR trip rates, are summarised in Table 7 below.

Table 91: M5 J12, SDLPR Allocations Trip Generation

Site Ref	Site	Peak Average	% SDLPR Trips
G2	Land at Whaddon	1731	39%
G1	South of Hardwicke	805	18%

PS20	M5 Junction 13 Eco Park	644	14%
PS19a	Northwest of Stonehouse	558	13%
PS30	Hunts Grove extension	448	10%
PS32	South of M5/J12 Quedgeley East Ext	148	3%
PS43	Javelin Park	114	3%
Total Values		4446	100%

11.30 The Symmetry Park, Gloucester B8 development will generate a small proportion of new trips within the locality of the M5 Junction 12. Based on the values summarised in Table 7 the Symmetry Park Gloucester development will not even be the highest trip generator served off the B4008 to the south of M5 Junction 12. Based on site PS32, South of M5/J12 (Quedgeley East Extension), applying B1/B2/B8 floorspace (which would be consistent with the existing approved Quedgeley East development site) PS32 would likely generate more vehicular trips.

Trip Distribution

11.31 The contributions for the M5 Junction 12 package detailed within the TFDP/EB109 are based on the amount of traffic generated by each development through the intersection, with these figures then 'sifted' for developments with less than 5% of the impact. The unamended impacts were shown previously in Table 2.

11.32 The 'unsifted' figures provide a direct representation of all trips through M5 Junction 12 generated by all development based on the trip generation and distribution profiles adopted within the SDLPR. For the most part the impact seems reasonable, however, two points have been considered in more detail (in addition to the trip generation issues with PS43 Javelin Park previously discussed):

- PS32 South of M5/J12 (Quedgeley East Extension) not being included in the contribution table; and
- The seemingly low impact of PS19a Northwest of Stonehouse.

PS32, M5/J12 Quedgeley East Extension

11.33 For PS32, the distribution agreed in the neighbouring Quedgeley East development (as part of planning ref:16/1724/OUT) has been applied to the SDLPR trip generation for PS32 to consider the trips likely to pass through M5 Junction 12.

11.34 The trip distribution for Quedgeley East is summarised in Table 8 below, as well as the total number of PS32 trips passing through M5 Junction12 this would equate to.

Table 10: PS32 South of M5/J12 Trip Generation

	AM Arrivals	AM Departures	AM 2-way	PM Arrivals	PM Departures	PM 2-way	Peak Average
Total PS32 Trips	129	33	162	22	111	133	148

Quedgeley East M5 J12 Trips	83.3%	71.8%	-	83.3%	71.8%	-	-
PS32 M5 J12 Trips	107	24	131	18	80	98	115

11.35 As shown by the above table, the Traffic Forecasting Report/EB61 estimated the PS32 allocation will generate 162 trips in the AM Peak and 133 trips in the PM Peak. Applying the distribution for the original Quedgeley East application results in a total of 131 trips in the AM Peak and 98 trips in the PM Peak passing through the M5 Junction 12 giving a peak average of 115. This is higher than the total number of trips generated by PS43 Javelin Park as demonstrated in Table 10.

PS19a, Northwest of Stonehouse

11.36 To distribute SDLPR trips associated with PS19a the same methodology used within the Traffic Forecasting Report has been adopted with 'Place of Residence and Place of Work' 2011 Census data used to determine where people who live in Stonehouse usually work. Google Maps software has then been used to distribute these trips on the network at peak times.

11.37 Based upon the gravity model used it is expected that people working in Gloucester, Tewkesbury, Cotswold, Cheltenham, Forest of Dean and Wychavon would travel via M5 Junction 12 from the site location of PS19a. This represents 31% of trips from the development; this is summarised in Table 9 below.

Table 112: PS19A Northwest of Stonehouse Trip Generation

	AM Arrivals	AM Departures	AM 2-way	PM Arrivals	PM Departures	PM 2-way	Peak Average
Total PS19s Trips	227	318	545	300	270	570	558
PS19a M5 J12 Trips	31%	31%	31%	31%	31%	31%	31%
PS19a M5 J12 Trips	69	97	167	92	83	174	171

11.38 As shown by the above table, the Traffic Forecasting Report/EB61 estimated the PS19a allocation will generate 545 trips in the AM Peak and 570 trips in the PM Peak. Using a first principles method to distribute traffic (2011 Census Data and mapping software), it is estimate 167 and 174 of these trips will use the M5 Junction 12 in the AM and PM peak respectively. Based upon the impacts estimated in Table 11 of this report, this is higher than the number of trips considered within the TFDP/EB109.

Trip Disribution Summary

11.39 Table 10 summarises the trips generated through the M5 Junction 12 by PS32 and P19a based on the estimated traffic distribution. The total number of trips generated by the Symmetry Park Gloucester planning application development are also summarised in the table which assumes all trips generated by the site will pass through M5 Junction 12. This is unlikely in reality, with the Symmetry Park Gloucester TA estimating 16% of car drivers would approach via the B4008 from the south.

Table 3: Trip Distribution Summary

	AM Arrivals	AM Departures	AM 2-way	PM Arrivals	PM Departures	PM 2-way	Peak Average
PS32 M5 J12 Trips	107	24	131	18	80	98	115
PS19a M5 J12 Trips	69	97	167	92	83	174	171
PS43 Javelin Park Trips	76	27	103	34	91	125	114

11.40 It is estimated that the developments at PS32 and P19a will generate more trips through the M5 Junction 12 than the total number of trips generated by Symmetry Park, Gloucester (based on the SDLPR trip rates). The number of trips shown for PS43, Javelin Park, are the highest possible number of trips that the development could generate through M5 Junction 12 (based upon the SDLPR trip rates), however the trips generated through the junction by PS32 and PS19a could increase as highway conditions alter.

SDLPR Allocations

- 11.41 To allow the impact of Symmetry Park, Gloucester to be fully considered, as part of the preparation of this report the distribution of each of the SDLPR development allocation sites (and, therefore, trips through M5 Junction 12) has been re-considered by going back to first principles.
- 11.42 The trip distribution was undertaken in the Traffic Forecasting Report/EB61 supporting the SDLPR evidence base, which stated that “the development of distributions was informed by Census Journey to Work data and made use of professional judgement.”
- 11.43 For trips generated by Symmetry Park, Gloucester the distribution agreed within the Symmetry Park Gloucester TA has been used to estimate trips through M5 Junction 12. This distribution assumed 14 trips would travel south from the site in AM and PM peak hours, as the trip rates used within the Symmetry Park Gloucester TA are lower than those in the SDLPR reducing the total PS43 Javelin Park by 14 is a robust assessment of trips through the M5 Junction 12.

Funding Contributions

- 11.44 To determine a fair and reasonable funding contribution towards the M5 Junction 12 package to be attributed to PS43 Javelin Park allocation including an even split of offices, B2 and B8 uses, the ‘unsifted’ contribution table has been recreated using the re-considered gravity model created in preparing this TN and including PS32 South of M5/J12.

11.45 The resultant contributions are shown in Table 11 and present percentages associated with the proportion of the total scheme cost assigned to allocation sites contained within the SDLPR.

Table 13: Adjusted M5 Junction 12 contribution

Ref	Development	Peak Average Trips M5 J12	Contribution of SDLPR funding		
			TFDP/ EB109*	PS43 Allocation**	Symmetry Park Application***
G1	South of Hardwicke	514	21.1%	20.2%	26.7%
G2	Land at Whaddon	209	8.6%	8.2%	10.9%
PS19a	Northwest of Stonehouse	171	7.0%	6.7%	8.9%
PS20	M5 J13 Eco Park	170	7.0%	6.7%	8.8%
PS24	West of Draycott	55	2.3%	2.2%	2.9%
PS25	East of River Cam	11	0.5%	0.4%	0.6%
PS30	Hunts Grove Extension	291	12.0%	11.4%	15.1%
PS34	Sharpness Docks	34	1.4%	1.3%	1.8%
PS36	New Settlement at Sharpness	146	6.0%	5.7%	7.6%
PS37	New Settlement at Wisloe	99	4.1%	3.9%	5.2%
PS43	Javelin Park/Symmetry Park	772/96****	29.7%	28.3%	5.0%
PS47	Land West of Renishaw New Mills	11	0.5%	0.4%	0.6%
PS32	South of M5/J12 Quedgeley East Extension	114		4.5%	6.0%

*Excludes PS32 **With PS32 ***B8 only ****Through J12

11.46 Based upon the PS43 Javelin Park allocation site, it is evident that the originally calculated requirement for a 32% contribution is incorrect. Table 11 clearly demonstrates, based upon the information available within the SDLPR evidence base and the application of gravity modelling using first principles, that a 27% contribution would be a fair and reasonable contribution towards the M5 Junction 12 Mitigation Package proposed by Stroud District Council.

Table 14: Symmetry Park, Gloucester - Suggested Contribution

Total scheme cost M5 J12 ⁽¹⁾	SDLPR Allocations Contribution ⁽²⁾	PS43 contribution ⁽³⁾	Symmetry Park Gloucester B8 proposal contribution ⁽³⁾
100%	38%	27%	5%
£9,437,500	£3,586,250	£2,529,539	£179,313

Ref 1: EB110 2: EB109 3: WSP TN

11.47 Paying more than required to mitigate the impact does not fairly and reasonably relate to the scale and kind of the proposed B8 development and would fail the test of the Community Infrastructure Levy Regulations 2010. The Regulations state,

“Planning obligations assist in mitigating the impact of unacceptable development to make it acceptable in planning terms. Planning obligations may only constitute a reason for granting planning permission if they meet the tests that they are necessary to make the development acceptable in planning terms. They must be:

- *necessary to make the development acceptable in planning terms;*
- *directly related to the development; and*
- *fairly and reasonably related in scale and kind to the development.”*

11.48 All schemes that impact on infrastructure must make a proportionate contribution to that infrastructure.

11.49 Traffic generation leading to any impact must be based on development permitted.