

WHAT THE COUNCIL'S TRAFFIC MODEL SAYS

The council's own traffic model forecasts that the Southern Link Road (Bypass Phase One) adds 10–48% more traffic to the C1098 in its opening year, on top of growth already expected, and nearly doubles traffic on the B4352 at the Clehonger end of Madley. The figures were released on 21 September 2026 under environmental information request EIR2026/01918. Until now there were no published figures for the road.

SUMMARY

- **C1098 south of the A438, 2028:** +19% in the PM peak hour and +48% between the peaks, compared with no scheme. Against 2023 the PM peak and inter-peak are both up about 65%.
- **B4352, Clehonger end of Madley, 2028:** +91% in the PM peak hour (213 to 406 vehicles) compared with no scheme.
- **HGVs:** up by about a third on the C1098 – a road signed as unsuitable for them – and roughly doubled on the B4352 east of Madley.
- **The effect is permanent.** The uplift is still there in 2043 and 2061. The forecasts contain no western bypass and no mitigation on the C1098.
- **The model's authors flagged this road.** AECOM's validation report names “the Bridge Sollars to Madley Road” as needing more detailed consideration if the model is used there, records that HGVs already use it “to avoid Hereford (extent unknown)”, and recommends a local review before any DfT business case.

Findings F14–F19 continue the numbering of Evidence Note 2 (F1–F13). Every figure below is the council's own model output; the method and caveats are set out at the end.

FINDINGS

F14

Forecast traffic on the C1098 south of the A438

With the scheme, the council's model puts 340 vehicles an hour on the C1098 in the 2028 PM peak, against 285 without it and 206 in 2023. This is model site 7, “C1098 N of C1191”, the link running south from the A438 junction over Bridge Sollers Bridge. Figures are two-way, all vehicles, per modelled hour.

SITE 7, C1098 SOUTH OF THE A438 – TWO-WAY VEHICLES PER HOUR

Period	Base 2023	No scheme 2028	With scheme 2028	Scheme effect 2028	No scheme 2043	With scheme 2043	No scheme 2061	With scheme 2061
AM peak hour (08:00– 09:00)	253	287	316	+29 (+10%)	342	374	389	432
Inter-peak average hour (09:00– 15:00)	126	141	208	+67 (+48%)	223	266	264	307
PM peak hour (16:00– 17:00)	206	285	340	+55 (+19%)	366	425	409	476
Saturday (11:00– 12:00)	150	220	267	+47 (+21%)	274	314	302	345

- **Against today.** With the scheme, 2028 flows are 25% (AM), 65% (inter-peak), 65% (PM) and 78% (Saturday) above 2023.
- **All day, not just the peaks.** The largest proportional effect is between the peaks: across the six inter-peak hours the scheme adds about 400 vehicles a day (roughly 850 to 1,250).
- **Fifteen years early.** The with-scheme 2028 PM flow (340) is close to the no-scheme level for 2043 (366).
- **It does not fade.** The PM scheme effect is +55 in 2028, +59 in 2043 and +67 in 2061. By 2061 the PM flow is 2.3 times the 2023 level.
- **Direction.** The biggest PM increase is southbound (160 to 194), consistent with A438 traffic cutting south to the new road.
- The southern end of the road (site 11, north of the B4352) shows the same pattern: PM 255 to 311 (+22%), inter-peak 122 to 189 (+55%).

Forecast link flows by vehicle class, Link Flows.csv, released under EIR2026/01918

F15

Forecast traffic on the B4352 through Madley

The scheme nearly doubles traffic on the B4352 at the Clehonger end of Madley and adds about a fifth at the C1098 end. Madley village lies between model site 14 (“B4352 W of B4349”) and site 12 (“B4352 E of C1098”). Figures are two-way vehicles per hour.

SITES 14 AND 12, B4352 EITHER SIDE OF MADLEY – TWO-WAY VEHICLES PER HOUR

Site and period	Base 2023	No scheme 2028	With scheme 2028	Scheme effect 2028	No scheme 2043	With scheme 2043
Site 14, Clehonger end, AM	214	235	359	+124 (+53%)	269	404
Site 14, Clehonger end, inter-peak	142	153	272	+119 (+78%)	190	324
Site 14, Clehonger end, PM	194	213	406	+193 (+91%)	247	467
Site 14, Clehonger end, Saturday	160	187	338	+151 (+81%)	219	369
Site 12, C1098 end, AM	214	245	279	+34 (+14%)	297	334
Site 12, C1098 end, inter-peak	113	127	195	+68 (+54%)	207	252
Site 12, C1098 end, PM	185	264	320	+56 (+21%)	341	403
Site 12, C1098 end, Saturday	131	198	249	+51 (+26%)	250	294

- **The corridor.** The scheme effect runs B4349 east of Clehonger (+205 in the 2028 PM peak, +39%), B4352 (+193 falling to +56), C1098 (+55). The A438 east of the C1098 falls by 39 (–5%) while the A438 to the west rises by 19 (+3%). Traffic between the A438 west and the new road stops going through Hereford and uses the bridge instead.
- **Everything turns onto the C1098.** The model has only about 10 vehicles an hour on the B4352 west of the C1098 junction, so flows at site 12 and on the C1098 are almost identical in every scenario.
- **Open point.** About 137 of the extra 193 PM vehicles at site 14 join or leave the B4352 between the two sites. Whether that is east or west of the school and parish hall depends on where the side roads sit in the model network. The council's location maps should settle it.
- Roads further west (C1185, Bredwardine, C1191) change by 0–3%.

Forecast link flows by vehicle class, Link Flows.csv and Location Summary.csv, released under EIR2026/01918

F16

HGVs

The model sends more HGVs down both roads with the scheme, and none at all would be added without it on the B4352 east of Madley. Figures are two-way HGVs per modelled hour.

HGVS PER HOUR, TWO-WAY						
Location	Period	Base 2023	No scheme 2028	With scheme 2028	With scheme 2043	With scheme 2061
C1098 south of A438 (site 7)	AM	6	7	9	10	13
C1098 south of A438 (site 7)	Inter- peak	6	7	9	11	12
C1098 south of A438 (site 7)	PM	3	3	5	7	8
B4352 Clehonger end (site 14)	AM	4	4	8	9	10
B4352 Clehonger end (site 14)	Inter- peak	4	4	8	10	10
B4352 Clehonger end (site 14)	PM	3	3	7	7	8

- **C1098:** across the three weekday hours HGVs rise from 17 to 23 with the scheme in 2028 (+35%), and to 33 by 2061, about double 2023. This is the road the council itself signs as unsuitable for HGVs.
- **B4352 east of Madley:** without the scheme HGVs stay flat at 3–4 an hour in every forecast year. With it they double or more. The whole increase is caused by the scheme.
- **West end of Madley:** HGV numbers on the B4352 at the C1098 junction match those on the C1098 in every scenario. Every HGV at that end of the village is going to or from the bridge.
- **Vans** on the C1098 rise from 15 to 20 (AM) and 18 to 22 (PM) with the scheme in 2028.
- **Unit caveat.** The model assigns HGVs at 2.5 passenger car units each. The council's column description file was a duplicate of the data file, so it is not confirmed whether the HGV column is vehicles or PCUs. If PCUs, divide the HGV figures by 2.5. The percentage changes are unaffected.
- **Known local generator:** the council's uncertainty log includes 1,860 m² of warehousing at the Brightwells site, Stoney Street, Madley, rated near certain.

Link Flows.csv; HSTM Phase 1 uncertainty logs, 19 August 2026 – released under EIR2026/01918

F17

What the council's consultants wrote about the road

AECOM's Highway Local Model Validation Report (v2.0, August 2024) singles out the Bridge Sollers road by name. Paragraph references are to that report unless stated.

AECOM ON THE C1098 AND B4352	
Ref	What it says

Ref	What it says
9.2.7	Two locations where the HGV restriction coding “should be considered in more detail if the model is used in those areas”: Holme Lacy Road and “the Bridge Sollars to Madley Road”.
9.2.9	The road “is signed as unsuitable for HGVs to allow access to a site at Lulham. Count data and local knowledge indicate that this route is used by HGVs, either for local access or to avoid Hereford (extent unknown), despite the low standard of the route for large vehicles.”
9.3.8	“A notable feature is an avoidance of Hereford in the busier peak hours”, with vans in the base model routeing “via the A49, Tram Inn and Bridge Sollars” (Figure 9.6). The Hereford-avoiding run over the bridge exists in the 2023 model, before the new road.
9.2.5	Restricted roads get a time penalty of one second per metre to deter through HGVs. Figure 9.2 maps them, including an “Unsuitable for HGV” category. Whether the C1098 carries the penalty could not be confirmed from the compressed copy.
Data Collection Report 5.2.2 and 5.2.4	“Route 12: Bridge Sollars/A438 junction to A465/B4349 junction via the B4352” is one of 25 journey-time validation routes, chosen as “all main routes into and out of Hereford including routes to the Wye bridges at Bridge Sollars and Mordiford”.
Validation report Table 5.2	Observed Route 12 journey times: about 13.5 to 14.5 minutes for 11.1 km in every period, roughly 30 mph, with almost no peak-hour penalty.

The council’s modellers treat the C1098 and B4352 as a main route into Hereford, know that HGVs use it to avoid the city, and said in 2024 that its treatment needs a closer look before the model is relied on there.

AECOM, HSTM Highway Local Model Validation Report v2.0 and HSTM Data Collection Report v2.0, August 2024 – supplied with the EIR2026/01918 response

F18

How far the model can be trusted here

The forecasts are the council’s own and the direction of change is clear, but the model has had no independent local check around the C1098 or Madley. That cuts both ways: the council cannot dismiss the figures, and it cannot claim they are precise.

- **One count in the corridor.** The count site list shows a single 2023 two-week count at Bridge Sollars Bridge (Wye screenline). There is no count anywhere on the B4352, so every Madley figure is an unvalidated model output.
- **Fitted, not tested.** The adopted model used all screenlines in matrix estimation (12.2.8). The bridge count was matched by design, so the 100% pass on the Wye screenline is not independent validation.
- **Independent counts fall short.** The 60 held-back validation counts pass at 77% (AM), 85% (inter-peak), 77% (PM) and about 70% (Saturday) against an 85% guideline. None is near the C1098. Failures “usually indicate a deficit of traffic in the model” (11.7.6).
- **AECOM’s own caveats.** Counts in the south-west of the county “are limited” (Data Collection Report 3.8.3). Performance “has not been assessed locally or in areas where observed data was limited” (12.4.4). A “more detailed review of the model performance in the vicinity of any proposed

future scheme is recommended if a highway scheme is taken forward as a business case to the DfT” (12.4.5, also 2.1.3).

- **Rat-running was constrained by hand.** Manual counts on minor roads were used “to aid route calibration (avoiding modelling excessive rat-running)” (Data Collection Report 3.6.2). Whether that was done on or near the C1098 is unknown.
- **Local trips are largely synthetic.** Demand comes from mobile phone data at large rural zones, which the report says under-records trips under about 10 km. HGV demand comes from a regional National Highways model.
- **Saturday is the weakest period.** AECOM cites “more uncertainty in both demand ... and in the network” (11.7.4), and no-scheme Saturday growth to 2028 is 22–50% at every site. Lead with weekday figures.
- **Journey times are right.** Modelled Route 12 times are within –3% to +6% of observed on weekdays, so the route’s attractiveness is realistically represented.
- **Two oddities to query.** No-scheme PM growth on the C1098 from 2023 to 2028 is +38%, against +1% to +8% on the A438 beside it, and the housing log (Madley 45 homes, Clehonger 95, Kingstone 18) does not explain it. The B4352 west of the C1098 carries about 10 vehicles an hour in the model, against 85–135 on the same road near Bredwardine.

Count Site List.csv; AECOM validation and data collection reports, August 2024

F19

What is and is not in the forecasts

The with-scheme forecasts are the Southern Link Road on its own, to 2061, with nothing protecting the C1098. Source: the HSTM Phase 1 uncertainty logs dated 19 August 2026.

- **No Phase 2.** The highway schemes log lists the Southern Link Road (“More than likely”, first forecast year 2027). It lists no western bypass, no second river crossing and no measure on the C1098 or B4352. The traffic increase therefore never unwinds in the council’s own forecasts.
- **Belmont Road restriction not listed.** The HGV restriction required by planning condition 21 does not appear as a separate entry. Whether it is coded into the with-scheme network is not stated. If it is not, westward HGV displacement towards the C1098 has not been tested.
- **Major Hereford housing left out.** Three Elms (1,200 of 1,550 homes) and Holmer North (900) are classed hypothetical and excluded. More growth and congestion in Hereford would push more traffic to the bridge, so the forecasts are arguably conservative for the C1098.
- **Local growth is small.** Included housing near the corridor totals about 45 homes in Madley, 95 in Clehonger and 18 in Kingstone. The scheme effect is not a development effect.
- **A possible double count.** Hawthorn Rise, Peterchurch appears twice (planning refs 132707 and 201441) for 148 homes on an 89-home site. Minor, but it goes to the care taken with the inputs.
- **Already coded:** the Bridge Sollers 40 mph limit (TRO, complete 2024), which probably explains a node change on the A438 east of the C1098 in the forecast networks.

WHAT THIS MEANS FOR THE MABSTAG ASK

The release strengthens each part of the three-part ask and fills the gap this site described, until now, as “no published figures”.

- **Act now.** The council’s consultants confirm HGVs already use the road to avoid Hereford, and the model shows the scheme adding a third more. The 2018 reason for refusing a weight limit was the lack of an alternative route. The new road is that alternative, and the model shows traffic choosing the C1098 over it unless something deters it.
- **Monitor openly.** There is one count in the corridor and none on the B4352. AECOM itself recommends a local review and further data collection before business-case use. Before-and-after monitoring is the minimum its own report implies.
- **Escalate automatically.** The forecasts give ready-made thresholds. The council’s no-scheme figures (for example 285 vehicles in the 2028 PM peak hour on the C1098, 213 on the B4352 at Clehonger) are the level the road was going to reach anyway. Anything above them is scheme impact the council has itself predicted.
- **The assessment criteria.** Cabinet’s April 2026 criteria require a list of routes with increased traffic flows, and scrutiny resolution 8 requires a section on communities experiencing adverse effects. These figures show the C1098 and B4352 belong on that list by the council’s own numbers.

QUESTIONS FOR THE COUNCIL

Two sets: short questions for Cabinet on 24 September (as a public question if the deadline allows, otherwise through the ward member or a scrutiny member), and a follow-up information request.

For Cabinet, 24 September

The council’s own traffic model, released under EIR2026/01918, forecasts that Bypass Phase One will increase traffic on the C1098 Bridge Sollers road by 19% in the evening peak and 48% between the peaks in 2028, nearly double traffic on the B4352 at Madley, and increase HGVs on both, with the effect persisting to 2061. The council’s consultants wrote in 2024 that this road needs more detailed consideration if the model is used there, and that HGVs already use it to avoid Hereford. Will Cabinet make approval of the Full Business Case conditional on a funded package of measures and published monitoring for the C1098 and B4352, in place before the new road opens?

Main question

Supplementary options

- AECOM's validation report recommends a more detailed local review of model performance near any scheme taken to a DfT business case. Was that review carried out for the C1098 and B4352 corridor, and will it be published?
- The April assessment criteria require a list of routes with increased traffic flows. Are the C1098 and B4352 on that list in the Assessment Report, with these figures?
- In 2018 a weight limit on the C1098 was refused solely because no suitable alternative route existed. Does the Cabinet Member accept that the Southern Link Road is that alternative, and will the 2018 decision now be revisited?

Follow-up information request (EIR)

1. The correct "Column Description" file for the forecast link flows. The file supplied is a duplicate of the link flow data. Please confirm whether flows are in vehicles or PCUs.
2. Modelled and observed 2023 flows at the Bridge Sollers Bridge count site, by direction, time period and vehicle class, from both the initial and final calibration runs.
3. Any local model review, present-year validation or recalibration note produced for the Phase One business case, as recommended in paragraphs 2.1.3 and 12.4.5 of the validation report. If none exists, please say so.
4. Whether the C1098 is coded with the "unsuitable for HGVs" time penalty in the base and forecast networks, and if not, why not.
5. Whether the Belmont Road HGV restriction (planning condition 21) is coded in the Do Something networks, and any test of HGV re-routing resulting from it.
6. Select link analysis for the C1098 south of the A438 in the 2028 Do Minimum and Do Something, all periods, showing origins and destinations of traffic using the link.
7. Any reference flows or routing constraints applied on or near the C1098 or B4352 during route calibration (Data Collection Report paragraph 3.6.2).
8. The network plot and link list for the B4352 between the B4349 and the C1185, including an explanation of the very low flow west of the C1098 junction.
9. The explanation for 2023 to 2028 Do Minimum growth of 38% in the PM peak on the C1098, compared with 1–8% on the adjacent A438.
10. The link-level distributional impact assessment (traffic, noise, air quality) referred to in the 20 July scrutiny minutes, for links covering the C1098 and the B4352 through Madley.
11. The HSTM Highway Coding Manual and the forecasting report for the Phase One model runs, including the Do Something network changes.

SOURCES, METHOD AND CAVEATS

All figures come from Herefordshire Council's response to EIR2026/01918 (21 September 2026) and the two AECOM reports supplied with it.

SOURCE DOCUMENTS	
Source	Used for
Forecast link flows by vehicle class – Link Flows.csv (896 rows, 16 sites, 7 scenarios)	F14–F16
Forecast link flows – Location Summary.csv	Site names and locations
Count Site List.csv	F18, count coverage
HSTM_Phase1 Uncertainty Logs 2026-08-19 v1 (highway schemes, housing, employment, TAG uncertainty)	F16, F19
AECOM, HSTM Highway Local Model Validation Report v2.0, August 2024	F17, F18
AECOM, HSTM Data Collection Report v2.0, August 2024	F17, F18, time period definitions
mabstag.org.uk	The three-part ask and Cabinet date

- **Method.** Two-way flows are the sum of both directions of HGV, LGV and car for each site, period and scenario. “Scheme effect” is Do Something minus Do Minimum in the same year. Percentages are rounded to whole numbers.
- **Scenarios.** Base is 2023. Do Minimum is the future without the scheme. Do Something is the future with the Southern Link Road. Forecast years are 2028, 2043 and 2061.
- **Time periods.** AM and PM are single peak hours, inter-peak is an average hour, Saturday is 11:00–12:00. The model does not produce daily totals, so none are quoted. The 2016 count of about 2,290 vehicles a day is not directly comparable.
- **Not read.** The council's response letter (RTF) and three map PDFs (image only) could not be read by the tools used for this analysis. They should be checked by eye against F15 and F17.
- **Validation report.** Read from a compressed copy. Quotations were taken from its text layer and should be checked against the original before publication.

Documents released under environmental information request have no public web link – the group holds copies for anyone who wants to see them. Corrections on notification of error are welcomed: the group's interest is in the accuracy of the evidence base, which is precisely what it asks of the council.