

Appendix B – New Road Strategy for Hereford Traffic Flows Summary

Introduction

The Hereford Transport Model (HTM) has been used to assess the impacts of the following potential highway schemes, in terms of traffic flows and journey time changes on the surrounding network compared to a Do Nothing Scenario (where no changes to the road network are assumed).

- Eastern River Crossing (ERiC)
- The Hereford Western Bypass (HWB) - Southern Link Road (SLR) & Western Bypass (WB)

Schematic maps have been produced to demonstrate more visually the impacts of the schemes on the network. Maps have been produced showing traffic flow and journey time changes based on the following scenarios using the 2032 model:

- ERiC (AM & PM peak) compared to the Do Nothing
- HWB - SLR & Western Bypass (AM & PM peak) compared to the Do Nothing

The HTM provides outputs by direction for a number of links across Herefordshire. To aid with the mapping and visual interpretation, the directional outputs have been averaged to provide one figure (either % change in traffic flows or journey time change) for each link.

Traffic flow changes with both the implementation of ERiC and the implementation of the SLR & Western Bypass scheme in the AM Peak are set out in Table 1 and displayed in map format in Figure 1 and Figure 2. The lettered references included in Table 1 against each link correspond with the letters displayed on the map.

Traffic flows are reported as vehicles per hour in the direction described.

Any changes are reported as a change in vehicles per hour compared to the Do Nothing Scenario and also as a percentage change.

The changes in traffic flows in Figures 1, 2, 3 and 4 are for the average change for both directions of traffic combined, as shown in Tables 1 and 2.

Table 1 - Traffic flows changes: ERiC v Do Nothing and HWB v Do Nothing (AM Peak)

Ref.	Description	Direction	Do Nothing	ERiC	Difference	% Change by Direction	Average % Change (Directions Combined)	HWB (SLR+WB)	Difference	% Change by Direction	Average % Change (Directions Combined)
A	A49, Victoria Street	Northbound	1794	1665	-129	-7%	-17%	1451	-343	-19%	-29%
A	A49, Victoria Street	Southbound	1635	1189	-446	-27%	-17%	998	-637	-39%	-29%
B	Eastern River Crossing	Northbound	n/a	782	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B	Eastern River Crossing	Southbound	n/a	1012	n/a	n/a	n/a	n/a	n/a	n/a	n/a
C	Southern Link Road	Eastbound	n/a	n/a	n/a	n/a	n/a	626	n/a	n/a	n/a
C	Southern Link Road	Westbound	n/a	n/a	n/a	n/a	n/a	436	n/a	n/a	n/a
D	B4399 Rotherwas Link	Eastbound	314	611	297	95%	168%	640	326	104%	128%
D	B4399 Rotherwas Link	Westbound	116	396	280	241%	168%	292	176	152%	128%
E	B4399, Holme Lacy Road	Eastbound	454	190	-264	-58%	-56%	482	28	6%	10%
E	B4399, Holme Lacy Road	Westbound	530	246	-284	-54%	-56%	606	76	14%	10%
F	B4399, Bridge Road	Eastbound	588	183	-405	-69%	-68%	553	-35	-6%	0%
F	B4399, Bridge Road	Westbound	584	188	-396	-68%	-68%	618	34	6%	0%
G	B4224, Eign Road	Westbound	514	534	20	4%	8%	468	-46	-9%	1%
G	B4224, Eign Road	Eastbound	218	246	28	13%	8%	242	24	11%	1%
H	B4224, Hampton Bishop	Eastbound	383	326	-57	-15%	-12%	303	-80	-21%	-21%
H	B4224, Hampton Bishop	Westbound	650	590	-60	-9%	-12%	519	-131	-20%	-21%
I	A49, Ross Road	Northbound	675	581	-94	-14%	-14%	522	-152	-23%	-30%
I	A49, Ross Road	Southbound	549	473	-76	-14%	-14%	349	-201	-37%	-30%
J	Holme Lacy Road	Eastbound	721	614	-107	-15%	11%	482	-239	-33%	-25%
J	Holme Lacy Road	Westbound	301	414	113	37%	11%	248	-53	-18%	-25%
K	A465, Belmont Road	Northbound	655	608	-47	-7%	-6%	527	-128	-19%	-17%
K	A465, Belmont Road	Southbound	660	621	-39	-6%	-6%	568	-91	-14%	-17%

Ref.	Description	Direction	Do Nothing	ERIC	Difference	% Change by Direction	Average % Change (Directions Combined)	HWB (SLR+WB)	Difference	% Change by Direction	Average % Change (Directions Combined)
L	Minor Road, Near Callow	Northbound	69	105	36	52%	98%	5	-64	-93%	-92%
L	Minor Road, Near Callow	Southbound	36	89	53	145%	98%	4	-33	-90%	-92%
M	A465, Allensmore	Northbound	333	307	-26	-8%	-10%	554	221	66%	69%
M	A465, Allensmore	Southbound	305	268	-37	-12%	-10%	522	217	71%	69%
N	B4349, Clehonger	Eastbound	239	246	7	3%	5%	390	152	63%	63%
N	B4349, Clehonger	Westbound	187	199	12	7%	5%	305	118	63%	63%
O	B4348, Winnal	Eastbound	106	117	11	11%	21%	46	-60	-57%	-41%
O	B4348, Winnal	Westbound	91	120	29	31%	21%	69	-22	-25%	-41%
P	B4349, Kingstone	Eastbound	126	124	-2	-2%	-7%	155	28	22%	30%
P	B4349, Kingstone	Westbound	87	77	-10	-12%	-7%	120	33	37%	30%
Q	B4352, Madley	Eastbound	241	226	-15	-6%	-2%	172	-69	-29%	-31%
Q	B4352, Madley	Westbound	247	252	5	2%	-2%	163	-84	-34%	-31%
R	A438, Sugwas Pool	Eastbound	397	378	-19	-5%	-6%	313	-85	-21%	-25%
R	A438, Sugwas Pool	Westbound	291	268	-23	-8%	-6%	207	-84	-29%	-25%
S	A438, Kings Acre Road	Eastbound	675	693	18	3%	3%	628	-46	-7%	-4%
S	A438, Kings Acre Road	Westbound	487	505	18	4%	3%	479	-8	-2%	-4%
T	A4103, Stretton Sugwas	Eastbound	648	624	-24	-4%	-5%	572	-76	-12%	-13%
T	A4103, Stretton Sugwas	Westbound	464	436	-28	-6%	-5%	399	-65	-14%	-13%
U	A4110, Canon Pyon Road	Northbound	235	224	-11	-5%	-3%	156	-78	-33%	-19%
U	A4110, Canon Pyon Road	Southbound	338	332	-6	-2%	-3%	324	-14	-4%	-19%
V	A49, Pipe and Lyde	Northbound	616	616	0	0%	-1%	701	85	14%	14%
V	A49, Pipe and Lyde	Southbound	847	837	-10	-1%	-1%	974	127	15%	14%
W	A465, Eau Withington	Northbound	164	192	28	17%	11%	174	10	6%	1%
W	A465, Eau Withington	Southbound	294	309	15	5%	11%	284	-10	-4%	1%

Ref.	Description	Direction	Do Nothing	ERIC	Difference	% Change by Direction	Average % Change (Directions Combined)	HWB (SLR+WB)	Difference	% Change by Direction	Average % Change (Directions Combined)
X	A4103, Withington	Eastbound	454	524	70	15%	10%	473	19	4%	4%
X	A4103, Withington	Westbound	626	660	34	5%	10%	645	19	3%	4%
Y	A438, Lugwardine	Eastbound	436	676	240	55%	46%	440	4	1%	0%
Y	A438, Lugwardine	Westbound	680	930	250	37%	46%	669	-10	-2%	0%
Z	A438, Ledbury Road	Eastbound	219	225	6	3%	0%	212	-7	-3%	-2%
Z	A438, Ledbury Road	Westbound	656	639	-17	-3%	0%	654	-2	0%	-2%
AA	A465, Withington Marsh	Northbound	216	295	79	37%	25%	221	5	2%	1%
AA	A465, Withington Marsh	Southbound	386	437	51	13%	25%	382	-4	-1%	1%
AB	A4103, Whitestone	Eastbound	405	457	52	13%	17%	418	13	3%	2%
AB	A4103, Whitestone	Westbound	462	562	100	22%	17%	469	7	1%	2%
AC	A438, Dormington	Eastbound	497	433	-64	-13%	-11%	496	-1	0%	0%
AC	A438, Dormington	Westbound	690	629	-61	-9%	-11%	693	3	0%	0%
AD	Clay Hill Pit, Dormington	Northbound	274	80	-194	-71%	-67%	269	-5	-2%	0%
AD	Clay Hill Pit, Dormington	Southbound	357	134	-223	-62%	-67%	366	8	2%	0%
AE	A49, Ross Road, Callow	Northbound	715	845	130	18%	21%	695	-20	-3%	-9%
AE	A49, Ross Road, Callow	Southbound	509	630	121	24%	21%	430	-79	-16%	-9%
AF	Western Bypass (South)	Northbound	n/a	n/a	n/a	n/a	n/a	906	n/a	n/a	n/a
AF	Western Bypass (South)	Southbound	n/a	n/a	n/a	n/a	n/a	997	n/a	n/a	n/a
AG	Western Bypass (North)	Northbound	n/a	n/a	n/a	n/a	n/a	789	n/a	n/a	n/a
AG	Western Bypass (North)	Southbound	n/a	n/a	n/a	n/a	n/a	695	n/a	n/a	n/a

Traffic flow change maps are shown overleaf.

Figure 1 – Average traffic flow changes - ERiC vs Do Nothing (AM Peak)

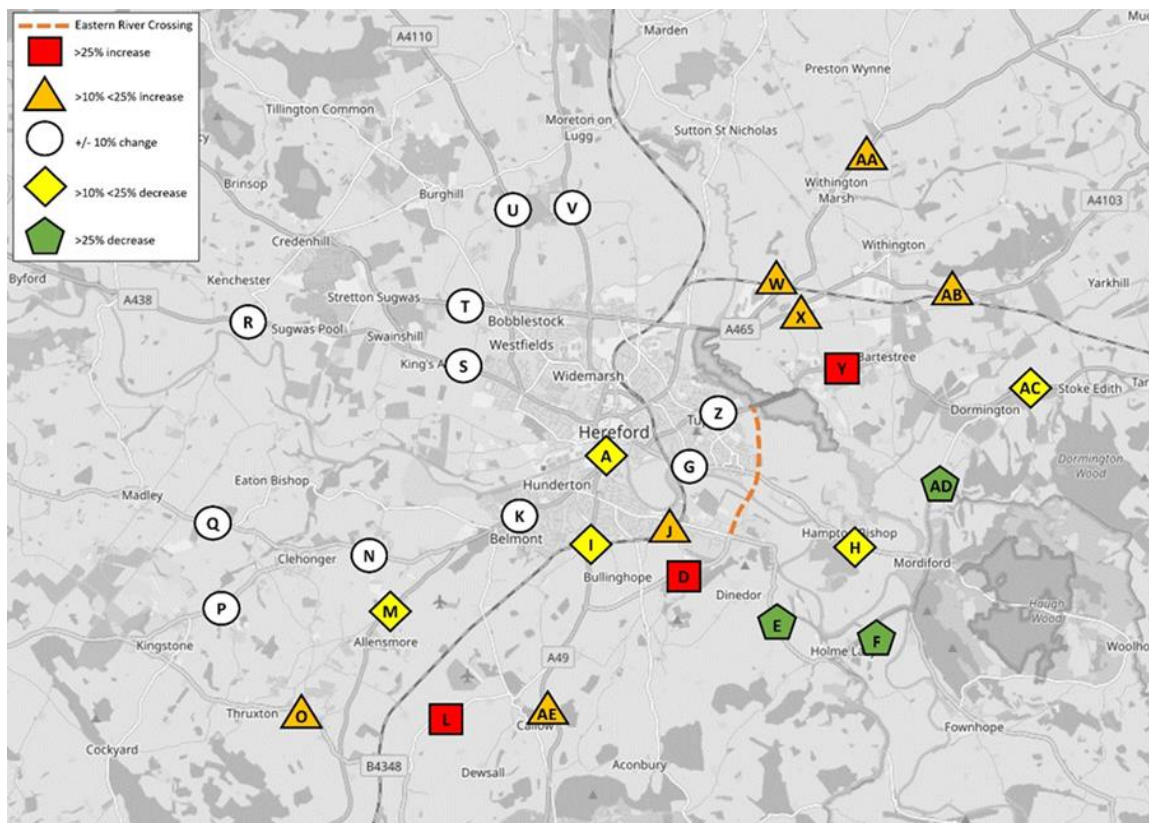
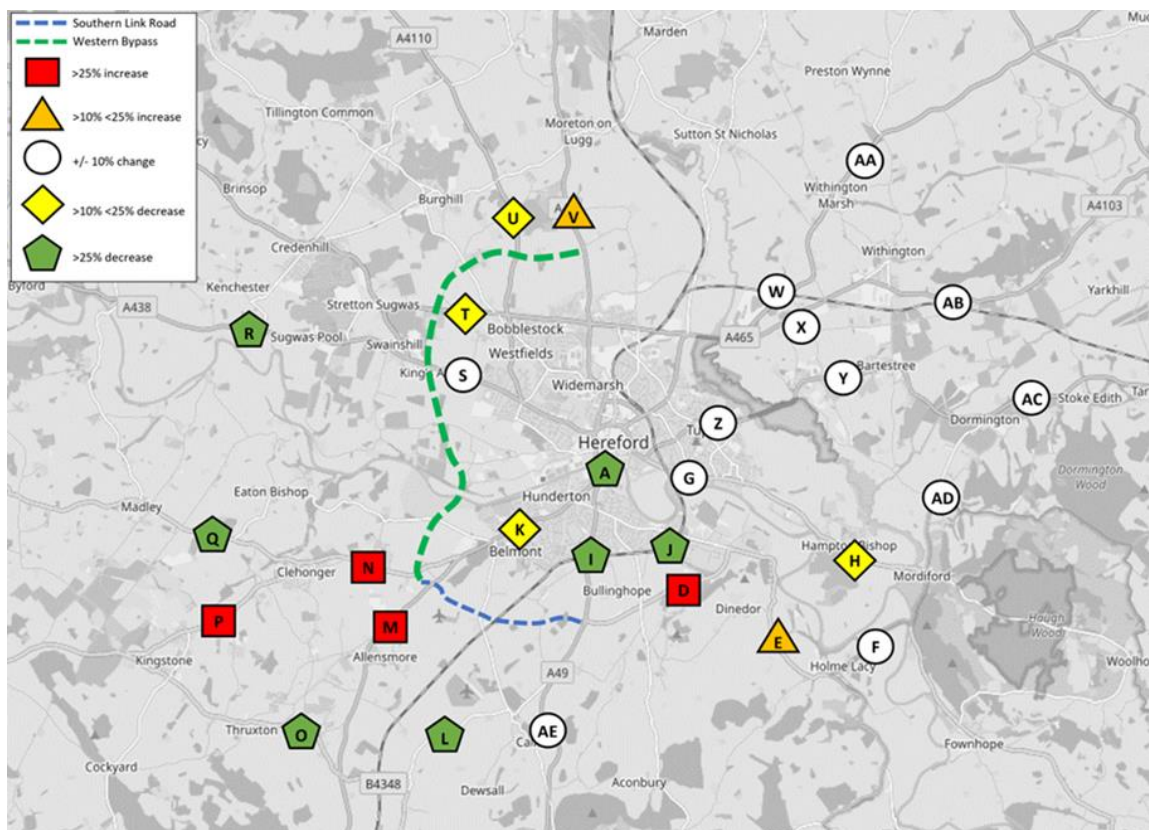


Figure 2 – Average traffic flow changes - HWB vs Do Nothing (AM Peak)



Traffic flow changes associated with the schemes in the PM Peak are set out in **Table 2** and displayed in map format in **Figure 3** and **Figure 4**.

Table 2 - Traffic flow changes: ERiC vs Do Nothing and HWB vs Do Nothing (PM Peak)

Ref.	Description	Direction	Do Nothing	ERiC	Difference	% Change by Direction	Average % Change (Directions Combined)	HWB (SLR+WB)	Difference	% Change by Direction	Average % Change (Directions Combined)
A	A49, Victoria Street	Northbound	1753	1430	-323	-18%	-15%	1163	-590	-34%	-30%
A	A49, Victoria Street	Southbound	1915	1702	-213	-11%	-15%	1425	-490	-26%	-30%
B	Eastern River Crossing	Northbound	n/a	904	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B	Eastern River Crossing	Southbound	n/a	632	n/a	n/a	n/a	n/a	n/a	n/a	n/a
C	Southern Link Road	Eastbound	n/a	n/a	n/a	n/a	n/a	399	n/a	n/a	n/a
C	Southern Link Road	Westbound	n/a	n/a	n/a	n/a	n/a	641	n/a	n/a	n/a
D	B4399 Rotherwas Link	Eastbound	117	420	303	260%	154%	276	159	137%	99%
D	B4399 Rotherwas Link	Westbound	443	656	213	48%	154%	716	273	61%	99%
E	B4399, Holme Lacy Road	Eastbound	551	233	-318	-58%	-50%	589	38	7%	14%
E	B4399, Holme Lacy Road	Westbound	406	237	-169	-42%	-50%	493	87	21%	14%
F	B4399, Bridge Road	Eastbound	605	183	-422	-70%	-62%	611	6	1%	7%
F	B4399, Bridge Road	Westbound	485	223	-262	-54%	-62%	547	62	13%	7%
G	B4224, Eign Road	Westbound	204	220	16	8%	3%	190	-14	-7%	-4%
G	B4224, Eign Road	Eastbound	343	336	-7	-2%	3%	339	-4	-1%	-4%
H	B4224, Hampton Bishop	Eastbound	448	457	9	2%	-6%	388	-60	-13%	-16%
H	B4224, Hampton Bishop	Westbound	443	377	-66	-15%	-6%	360	-83	-19%	-16%
I	A49, Ross Road	Northbound	623	549	-74	-12%	-13%	389	-234	-38%	-31%
I	A49, Ross Road	Southbound	643	558	-85	-13%	-13%	491	-152	-24%	-31%
J	Holme Lacy Road	Eastbound	318	374	56	18%	12%	242	-76	-24%	-22%
J	Holme Lacy Road	Westbound	605	643	38	6%	12%	478	-127	-21%	-22%
K	A465, Belmont Road	Northbound	710	634	-76	-11%	-6%	607	-103	-15%	-20%
K	A465, Belmont Road	Southbound	665	656	-9	-1%	-6%	500	-165	-25%	-20%

Ref.	Description	Direction	Do Nothing	ERIC	Difference	% Change by Direction	Average % Change (Directions Combined)	HWB (SLR+WB)	Difference	% Change by Direction	Average % Change (Directions Combined)
L	Minor Road, Near Callow	Northbound	43	111	68	159%	101%	2	-41	-95%	-95%
L	Minor Road, Near Callow	Southbound	73	105	32	43%	101%	4	-69	-95%	-95%
M	A465, Allensmore	Northbound	416	358	-58	-14%	-10%	541	125	30%	43%
M	A465, Allensmore	Southbound	340	317	-23	-7%	-10%	531	191	56%	43%
N	B4349, Clehonger	Eastbound	192	199	7	4%	4%	352	160	84%	71%
N	B4349, Clehonger	Westbound	256	265	9	4%	4%	408	152	59%	71%
O	B4348, Winnal	Eastbound	153	187	34	22%	15%	127	-26	-17%	-22%
O	B4348, Winnal	Westbound	168	182	14	8%	15%	122	-46	-28%	-22%
P	B4349, Kingstone	Eastbound	99	92	-7	-7%	-5%	155	56	57%	58%
P	B4349, Kingstone	Westbound	108	105	-3	-2%	-5%	170	62	58%	58%
Q	B4352, Madley	Eastbound	206	212	6	3%	0%	177	-29	-14%	-20%
Q	B4352, Madley	Westbound	227	221	-6	-2%	0%	166	-61	-27%	-20%
R	A438, Sugwas Pool	Eastbound	369	353	-16	-4%	-4%	297	-72	-20%	-19%
R	A438, Sugwas Pool	Westbound	470	454	-16	-3%	-4%	381	-89	-19%	-19%
S	A438, Kings Acre Road	Eastbound	508	523	15	3%	2%	505	-3	-1%	-2%
S	A438, Kings Acre Road	Westbound	673	678	5	1%	2%	652	-21	-3%	-2%
T	A4103, Stretton Sugwas	Eastbound	504	478	-26	-5%	-4%	412	-92	-18%	-12%
T	A4103, Stretton Sugwas	Westbound	583	568	-15	-3%	-4%	547	-36	-6%	-12%
U	A4110, Canon Pyon Road	Northbound	413	397	-16	-4%	-2%	381	-32	-8%	-11%
U	A4110, Canon Pyon Road	Southbound	214	216	2	1%	-2%	182	-32	-15%	-11%
V	A49, Pipe and Lyde	Northbound	687	661	-26	-4%	-2%	912	225	33%	23%
V	A49, Pipe and Lyde	Southbound	719	712	-7	-1%	-2%	809	90	12%	23%
W	A465, Eau Withington	Northbound	289	260	-29	-10%	-7%	299	10	3%	5%
W	A465, Eau Withington	Southbound	208	200	-8	-4%	-7%	221	13	6%	5%
X	A4103, Withington	Eastbound	509	665	156	31%	19%	517	8	2%	2%
X	A4103, Withington	Westbound	536	580	44	8%	19%	549	13	2%	2%
Y	A438, Lugwardine	Eastbound	541	791	250	46%	46%	546	5	1%	-1%

Ref.	Description	Direction	Do Nothing	ERIC	Difference	% Change by Direction	Average % Change (Directions Combined)	HWB (SLR+WB)	Difference	% Change by Direction	Average % Change (Directions Combined)
Y	A438, Lugwardine	Westbound	464	673	209	45%	46%	448	-16	-4%	-1%
Z	A438, Ledbury Road	Eastbound	395	392	-3	-1%	-6%	390	-5	-1%	-3%
Z	A438, Ledbury Road	Westbound	375	333	-42	-11%	-6%	360	-15	-4%	-3%
AA	A465, Withington Marsh	Northbound	309	372	63	21%	20%	316	7	2%	3%
AA	A465, Withington Marsh	Southbound	256	308	52	20%	20%	267	11	4%	3%
AB	A4103, Whitestone	Eastbound	446	498	52	12%	8%	449	3	1%	1%
AB	A4103, Whitestone	Westbound	477	499	22	5%	8%	481	4	1%	1%
AC	A438, Dormington	Eastbound	567	528	-39	-7%	-6%	568	1	0%	1%
AC	A438, Dormington	Westbound	499	476	-23	-5%	-6%	503	4	1%	1%
AD	Clay Hill Pit, Dormington	Northbound	290	97	-193	-67%	-66%	283	-7	-2%	2%
AD	Clay Hill Pit, Dormington	Southbound	261	90	-171	-65%	-66%	277	16	6%	2%
AE	A49, Ross Road, Callow	Northbound	526	637	111	21%	17%	491	-35	-7%	-6%
AE	A49, Ross Road, Callow	Southbound	740	831	91	12%	17%	705	-35	-5%	-6%
AF	Western Bypass (South)	Northbound	n/a	n/a	n/a	n/a	n/a	967	n/a	n/a	n/a
AF	Western Bypass (South)	Southbound	n/a	n/a	n/a	n/a	n/a	816	n/a	n/a	n/a
AG	Western Bypass (North)	Northbound	n/a	n/a	n/a	n/a	n/a	680	n/a	n/a	n/a
AG	Western Bypass (North)	Southbound	n/a	n/a	n/a	n/a	n/a	753	n/a	n/a	n/a

Traffic flow change maps are shown overleaf.

Figure 3 – Average traffic flow changes - ERiC vs Do Nothing (PM Peak)

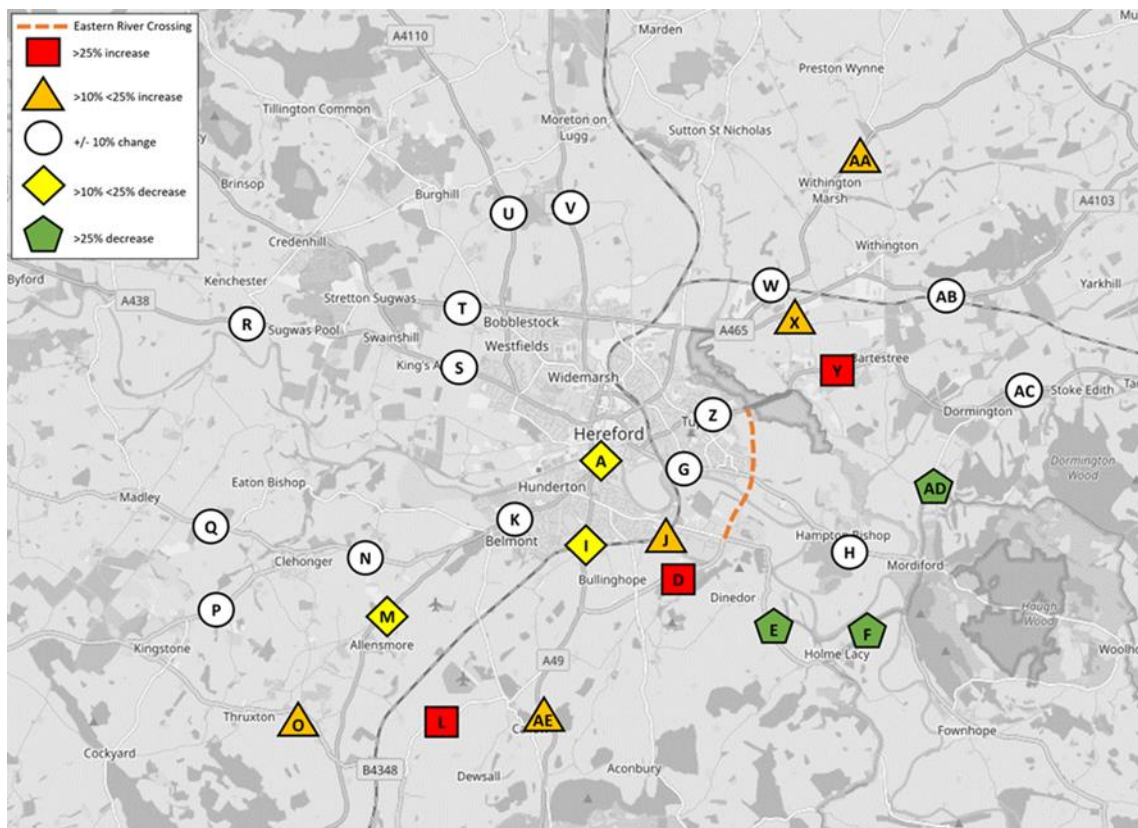


Figure 4 – Average traffic flow changes - HWB vs Do Nothing (PM Peak)

