

07:45 - 08:00

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	1223	306	1246	1320	0.927	1217	721	9.2	10.6	33.451	D
2 - James Towers Way (A6) South	1304	326	270	2438	0.535	1304	2194	1.2	1.2	3.374	A
3 - Whittingham Lane (B5269) West	302	75	1360	920	0.328	302	213	0.5	0.5	6.208	A
4 - James Towers Way (A6) North	1135	284	832	1528	0.743	1135	830	2.9	2.9	9.407	A

08:00 - 08:15

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	999	250	1024	1465	0.682	1032	590	10.6	2.3	9.398	A
2 - James Towers Way (A6) South	1064	266	228	2469	0.431	1066	1827	1.2	0.8	2.735	A
3 - Whittingham Lane (B5269) West	246	62	1116	1058	0.233	247	179	0.5	0.3	4.740	A
4 - James Towers Way (A6) North	927	232	681	1624	0.571	933	682	2.9	1.4	5.403	A

08:15 - 08:30

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	836	209	854	1576	0.531	841	494	2.3	1.2	5.190	A
2 - James Towers Way (A6) South	891	223	186	2500	0.357	892	1509	0.8	0.6	2.383	A
3 - Whittingham Lane (B5269) West	206	52	932	1161	0.178	207	147	0.3	0.2	4.022	A
4 - James Towers Way (A6) North	776	194	570	1694	0.458	778	569	1.4	0.9	4.046	A

2031 + 280 Dev No Connection, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Whittingham Lane / James Towers Way	Standard Roundabout		1, 2, 3, 4	13.98	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031 + 280 Dev No Connection	PM	ONE HOUR	16:00	17:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Whittingham Lane (B5269) East		ONE HOUR	✓	1020	100.000
2 - James Towers Way (A6) South		ONE HOUR	✓	1880	100.000
3 - Whittingham Lane (B5269) West		ONE HOUR	✓	260	100.000
4 - James Towers Way (A6) North		ONE HOUR	✓	1009	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	1 - Whittingham Lane (B5269) East	2 - James Towers Way (A6) South	3 - Whittingham Lane (B5269) West	4 - James Towers Way (A6) North
1 - Whittingham Lane (B5269) East	0	789	120	111
2 - James Towers Way (A6) South	847	0	101	932
3 - Whittingham Lane (B5269) West	116	140	0	4
4 - James Towers Way (A6) North	105	896	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Whittingham Lane (B5269) East	2 - James Towers Way (A6) South	3 - Whittingham Lane (B5269) West	4 - James Towers Way (A6) North
From	1 - Whittingham Lane (B5269) East	0	8	3	25
	2 - James Towers Way (A6) South	4	0	4	1
	3 - Whittingham Lane (B5269) West	5	5	0	10
	4 - James Towers Way (A6) North	0	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Whittingham Lane (B5269) East	0.81	14.82	4.5	B	936	1404
2 - James Towers Way (A6) South	0.85	9.81	5.5	A	1725	2588
3 - Whittingham Lane (B5269) West	0.56	16.57	1.3	C	239	358
4 - James Towers Way (A6) North	0.86	20.21	5.9	C	926	1389

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	768	192	782	1623	0.473	764	801	0.0	1.0	4.546	A
2 - James Towers Way (A6) South	1415	354	179	2505	0.565	1410	1367	0.0	1.3	3.353	A
3 - Whittingham Lane (B5269) West	196	49	1417	888	0.221	195	172	0.0	0.3	5.449	A
4 - James Towers Way (A6) North	760	190	827	1531	0.496	756	785	0.0	1.0	4.662	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	917	229	935	1523	0.602	914	958	1.0	1.6	6.420	A
2 - James Towers Way (A6) South	1690	423	214	2479	0.682	1687	1636	1.3	2.2	4.637	A
3 - Whittingham Lane (B5269) West	234	58	1696	731	0.320	233	205	0.3	0.5	7.599	A
4 - James Towers Way (A6) North	907	227	989	1428	0.635	904	939	1.0	1.7	6.899	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	1123	281	1134	1393	0.806	1113	1167	1.6	4.2	13.514	B
2 - James Towers Way (A6) South	2070	517	261	2445	0.847	2057	1986	2.2	5.3	9.228	A
3 - Whittingham Lane (B5269) West	286	72	2068	521	0.550	283	250	0.5	1.2	15.729	C
4 - James Towers Way (A6) North	1111	278	1206	1290	0.861	1096	1145	1.7	5.5	17.511	C

16:45 - 17:00

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	1123	281	1148	1385	0.811	1122	1175	4.2	4.5	14.823	B
2 - James Towers Way (A6) South	2070	517	263	2443	0.847	2069	2007	5.3	5.5	9.813	A
3 - Whittingham Lane (B5269) West	286	72	2080	514	0.557	286	252	1.2	1.3	16.568	C
4 - James Towers Way (A6) North	1111	278	1214	1285	0.865	1109	1152	5.5	5.9	20.210	C

17:00 - 17:15

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	917	229	955	1510	0.607	928	969	4.5	1.7	6.860	A
2 - James Towers Way (A6) South	1690	423	217	2477	0.682	1703	1665	5.5	2.2	4.846	A
3 - Whittingham Lane (B5269) West	234	58	1713	721	0.324	237	208	1.3	0.5	7.858	A
4 - James Towers Way (A6) North	907	227	1000	1421	0.639	924	949	5.9	1.8	7.537	A

17:15 - 17:30

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	768	192	789	1619	0.474	771	806	1.7	1.0	4.645	A
2 - James Towers Way (A6) South	1415	354	181	2504	0.565	1419	1380	2.2	1.3	3.414	A
3 - Whittingham Lane (B5269) West	196	49	1427	882	0.222	197	173	0.5	0.3	5.521	A
4 - James Towers Way (A6) North	760	190	833	1527	0.497	763	790	1.8	1.0	4.771	A

2031 + 280 Dev 50% WL , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Whittingham Lane / James Towers Way	Standard Roundabout		1, 2, 3, 4	14.44	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2031 + 280 Dev 50% WL	AM	ONE HOUR	07:00	08:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Whittingham Lane (B5269) East		ONE HOUR	✓	1111	100.000
2 - James Towers Way (A6) South		ONE HOUR	✓	1183	100.000
3 - Whittingham Lane (B5269) West		ONE HOUR	✓	271	100.000
4 - James Towers Way (A6) North		ONE HOUR	✓	1031	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Whittingham Lane (B5269) East	2 - James Towers Way (A6) South	3 - Whittingham Lane (B5269) West	4 - James Towers Way (A6) North
From	1 - Whittingham Lane (B5269) East	0	866	138	107
	2 - James Towers Way (A6) South	487	0	54	642
	3 - Whittingham Lane (B5269) West	91	175	0	5
	4 - James Towers Way (A6) North	77	953	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Whittingham Lane (B5269) East	2 - James Towers Way (A6) South	3 - Whittingham Lane (B5269) West	4 - James Towers Way (A6) North
From	1 - Whittingham Lane (B5269) East	0	6	6	0
	2 - James Towers Way (A6) South	10	0	4	4
	3 - Whittingham Lane (B5269) West	10	5	0	5
	4 - James Towers Way (A6) North	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Whittingham Lane (B5269) East	0.93	32.95	10.5	D	1019	1529
2 - James Towers Way (A6) South	0.53	3.37	1.2	A	1086	1628
3 - Whittingham Lane (B5269) West	0.32	6.18	0.5	A	249	373
4 - James Towers Way (A6) North	0.74	9.36	2.9	A	946	1419

Main Results for each time segment

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	836	209	846	1581	0.529	832	492	0.0	1.2	5.030	A
2 - James Towers Way (A6) South	891	223	184	2501	0.356	888	1494	0.0	0.6	2.372	A
3 - Whittingham Lane (B5269) West	204	51	928	1164	0.175	203	145	0.0	0.2	3.993	A
4 - James Towers Way (A6) North	776	194	565	1698	0.457	773	566	0.0	0.9	3.986	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	999	250	1013	1473	0.678	995	588	1.2	2.2	7.876	A
2 - James Towers Way (A6) South	1063	266	220	2475	0.430	1063	1787	0.6	0.8	2.711	A
3 - Whittingham Lane (B5269) West	244	61	1110	1061	0.230	243	173	0.2	0.3	4.692	A
4 - James Towers Way (A6) North	927	232	676	1627	0.570	925	677	0.9	1.3	5.255	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	1223	306	1237	1326	0.922	1196	720	2.2	9.1	25.095	D
2 - James Towers Way (A6) South	1303	326	265	2442	0.533	1301	2168	0.8	1.2	3.352	A
3 - Whittingham Lane (B5269) West	298	75	1357	922	0.324	298	209	0.3	0.5	6.141	A
4 - James Towers Way (A6) North	1135	284	828	1531	0.742	1129	827	1.3	2.8	9.084	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	1223	306	1243	1322	0.925	1218	721	9.1	10.5	32.950	D
2 - James Towers Way (A6) South	1303	326	270	2438	0.534	1302	2191	1.2	1.2	3.371	A
3 - Whittingham Lane (B5269) West	298	75	1360	920	0.324	298	212	0.5	0.5	6.176	A
4 - James Towers Way (A6) North	1135	284	829	1530	0.742	1135	830	2.8	2.9	9.357	A

08:00 - 08:15

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	999	250	1021	1467	0.681	1031	590	10.5	2.3	9.330	A
2 - James Towers Way (A6) South	1063	266	228	2469	0.431	1065	1824	1.2	0.8	2.731	A
3 - Whittingham Lane (B5269) West	244	61	1116	1058	0.230	244	178	0.5	0.3	4.723	A
4 - James Towers Way (A6) North	927	232	678	1626	0.570	933	682	2.9	1.4	5.389	A

08:15 - 08:30

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	836	209	852	1578	0.530	841	494	2.3	1.2	5.181	A
2 - James Towers Way (A6) South	891	223	186	2500	0.356	891	1507	0.8	0.6	2.382	A
3 - Whittingham Lane (B5269) West	204	51	932	1161	0.176	204	146	0.3	0.2	4.013	A
4 - James Towers Way (A6) North	776	194	568	1696	0.458	778	569	1.4	0.9	4.041	A

2031 + 280 Dev 50% WL , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Whittingham Lane / James Towers Way	Standard Roundabout		1, 2, 3, 4	13.88	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2031 + 280 Dev 50% WL	PM	ONE HOUR	16:00	17:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Whittingham Lane (B5269) East		ONE HOUR	✓	1020	100.000
2 - James Towers Way (A6) South		ONE HOUR	✓	1877	100.000
3 - Whittingham Lane (B5269) West		ONE HOUR	✓	258	100.000
4 - James Towers Way (A6) North		ONE HOUR	✓	1009	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Whittingham Lane (B5269) East	2 - James Towers Way (A6) South	3 - Whittingham Lane (B5269) West	4 - James Towers Way (A6) North
From	1 - Whittingham Lane (B5269) East	0	789	120	111
	2 - James Towers Way (A6) South	847	0	98	932
	3 - Whittingham Lane (B5269) West	116	138	0	4
	4 - James Towers Way (A6) North	105	896	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Whittingham Lane (B5269) East	2 - James Towers Way (A6) South	3 - Whittingham Lane (B5269) West	4 - James Towers Way (A6) North
From	1 - Whittingham Lane (B5269) East	0	8	3	25
	2 - James Towers Way (A6) South	4	0	4	1
	3 - Whittingham Lane (B5269) West	5	5	0	10
	4 - James Towers Way (A6) North	0	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Whittingham Lane (B5269) East	0.81	14.75	4.4	B	936	1404
2 - James Towers Way (A6) South	0.85	9.73	5.4	A	1722	2584
3 - Whittingham Lane (B5269) West	0.55	16.41	1.3	C	237	355
4 - James Towers Way (A6) North	0.86	20.07	5.9	C	926	1389

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	768	192	780	1624	0.473	764	801	0.0	1.0	4.541	A
2 - James Towers Way (A6) South	1413	353	179	2505	0.564	1408	1365	0.0	1.3	3.346	A
3 - Whittingham Lane (B5269) West	194	49	1417	888	0.219	193	169	0.0	0.3	5.438	A
4 - James Towers Way (A6) North	760	190	825	1532	0.496	756	785	0.0	1.0	4.656	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	917	229	934	1524	0.602	914	958	1.0	1.6	6.406	A
2 - James Towers Way (A6) South	1687	422	214	2479	0.681	1684	1634	1.3	2.2	4.621	A
3 - Whittingham Lane (B5269) West	232	58	1696	731	0.317	231	203	0.3	0.5	7.561	A
4 - James Towers Way (A6) North	907	227	988	1429	0.635	904	939	1.0	1.7	6.884	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	1123	281	1132	1395	0.805	1113	1167	1.6	4.2	13.502	B
2 - James Towers Way (A6) South	2067	517	261	2445	0.845	2054	1984	2.2	5.3	9.163	A
3 - Whittingham Lane (B5269) West	284	71	2068	521	0.545	281	247	0.5	1.2	15.599	C
4 - James Towers Way (A6) North	1111	278	1204	1291	0.860	1096	1145	1.7	5.5	17.415	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	1123	281	1146	1386	0.810	1122	1175	4.2	4.4	14.746	B
2 - James Towers Way (A6) South	2067	517	263	2443	0.846	2066	2005	5.3	5.4	9.729	A
3 - Whittingham Lane (B5269) West	284	71	2080	514	0.553	284	249	1.2	1.3	16.412	C
4 - James Towers Way (A6) North	1111	278	1212	1286	0.864	1109	1152	5.5	5.9	20.066	C

17:00 - 17:15

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	917	229	953	1512	0.607	928	969	4.4	1.7	6.843	A
2 - James Towers Way (A6) South	1687	422	217	2477	0.681	1700	1663	5.4	2.2	4.827	A
3 - Whittingham Lane (B5269) West	232	58	1712	721	0.322	235	205	1.3	0.5	7.827	A
4 - James Towers Way (A6) North	907	227	999	1422	0.638	923	949	5.9	1.8	7.517	A

17:15 - 17:30

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	768	192	788	1620	0.474	771	806	1.7	1.0	4.639	A
2 - James Towers Way (A6) South	1413	353	181	2504	0.564	1417	1378	2.2	1.3	3.406	A
3 - Whittingham Lane (B5269) West	194	49	1427	882	0.220	195	171	0.5	0.3	5.508	A
4 - James Towers Way (A6) North	760	190	831	1528	0.497	763	790	1.8	1.0	4.765	A

2031 + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Whittingham Lane / James Towers Way	Standard Roundabout		1, 2, 3, 4	12.16	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 + Committed	AM	ONE HOUR	07:00	08:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Whittingham Lane (B5269) East		ONE HOUR	✓	1110	100.000
2 - James Towers Way (A6) South		ONE HOUR	✓	1168	100.000
3 - Whittingham Lane (B5269) West		ONE HOUR	✓	218	100.000
4 - James Towers Way (A6) North		ONE HOUR	✓	1030	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Whittingham Lane (B5269) East	2 - James Towers Way (A6) South	3 - Whittingham Lane (B5269) West	4 - James Towers Way (A6) North
From	1 - Whittingham Lane (B5269) East	0	866	137	107
	2 - James Towers Way (A6) South	487	0	39	642
	3 - Whittingham Lane (B5269) West	90	127	0	1
	4 - James Towers Way (A6) North	77	953	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Whittingham Lane (B5269) East	2 - James Towers Way (A6) South	3 - Whittingham Lane (B5269) West	4 - James Towers Way (A6) North
From	1 - Whittingham Lane (B5269) East	0	6	6	0
	2 - James Towers Way (A6) South	10	0	4	4
	3 - Whittingham Lane (B5269) West	10	5	0	5
	4 - James Towers Way (A6) North	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Whittingham Lane (B5269) East	0.90	26.04	8.3	D	1019	1528
2 - James Towers Way (A6) South	0.53	3.32	1.2	A	1072	1608
3 - Whittingham Lane (B5269) West	0.26	5.67	0.4	A	200	300
4 - James Towers Way (A6) North	0.73	8.59	2.7	A	945	1418

Main Results for each time segment

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	836	209	810	1605	0.521	831	491	0.0	1.1	4.873	A
2 - James Towers Way (A6) South	879	220	183	2502	0.351	877	1458	0.0	0.6	2.354	A
3 - Whittingham Lane (B5269) West	164	41	928	1164	0.141	163	132	0.0	0.2	3.849	A
4 - James Towers Way (A6) North	775	194	528	1721	0.451	772	563	0.0	0.8	3.886	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	998	249	969	1501	0.665	994	587	1.1	2.0	7.431	A
2 - James Towers Way (A6) South	1050	263	219	2476	0.424	1049	1745	0.6	0.8	2.684	A
3 - Whittingham Lane (B5269) West	196	49	1110	1061	0.185	196	158	0.2	0.2	4.451	A
4 - James Towers Way (A6) North	926	231	632	1655	0.560	924	673	0.8	1.3	5.051	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	1222	306	1184	1361	0.898	1200	719	2.0	7.5	21.271	C
2 - James Towers Way (A6) South	1286	321	264	2443	0.526	1284	2120	0.8	1.2	3.303	A
3 - Whittingham Lane (B5269) West	240	60	1357	922	0.260	239	191	0.2	0.4	5.639	A
4 - James Towers Way (A6) North	1134	284	774	1565	0.725	1129	823	1.3	2.6	8.384	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	1222	306	1189	1358	0.900	1219	720	7.5	8.3	26.037	D
2 - James Towers Way (A6) South	1286	321	268	2440	0.527	1286	2140	1.2	1.2	3.320	A
3 - Whittingham Lane (B5269) West	240	60	1361	920	0.261	240	193	0.4	0.4	5.667	A
4 - James Towers Way (A6) North	1134	284	775	1564	0.725	1134	825	2.6	2.7	8.591	A

08:00 - 08:15

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	998	249	976	1497	0.667	1022	589	8.3	2.2	8.401	A
2 - James Towers Way (A6) South	1050	263	225	2471	0.425	1052	1774	1.2	0.8	2.700	A
3 - Whittingham Lane (B5269) West	196	49	1115	1058	0.185	197	161	0.4	0.2	4.473	A
4 - James Towers Way (A6) North	926	231	634	1654	0.560	931	677	2.7	1.3	5.158	A

08:15 - 08:30

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	836	209	815	1602	0.522	840	493	2.2	1.2	5.005	A
2 - James Towers Way (A6) South	879	220	185	2501	0.352	880	1470	0.8	0.6	2.364	A
3 - Whittingham Lane (B5269) West	164	41	932	1161	0.141	164	133	0.2	0.2	3.864	A
4 - James Towers Way (A6) North	775	194	531	1719	0.451	777	565	1.3	0.9	3.936	A

2031 + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Whittingham Lane / James Towers Way	Standard Roundabout		1, 2, 3, 4	12.62	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 + Committed	PM	ONE HOUR	16:00	17:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Whittingham Lane (B5269) East		ONE HOUR	✓	1018	100.000
2 - James Towers Way (A6) South		ONE HOUR	✓	1830	100.000
3 - Whittingham Lane (B5269) West		ONE HOUR	✓	231	100.000
4 - James Towers Way (A6) North		ONE HOUR	✓	1009	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Whittingham Lane (B5269) East	2 - James Towers Way (A6) South	3 - Whittingham Lane (B5269) West	4 - James Towers Way (A6) North
From	1 - Whittingham Lane (B5269) East	0	789	118	111
	2 - James Towers Way (A6) South	847	0	51	932
	3 - Whittingham Lane (B5269) West	115	114	0	2
	4 - James Towers Way (A6) North	105	896	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Whittingham Lane (B5269) East	2 - James Towers Way (A6) South	3 - Whittingham Lane (B5269) West	4 - James Towers Way (A6) North
From	1 - Whittingham Lane (B5269) East	0	8	3	25
	2 - James Towers Way (A6) South	4	0	4	1
	3 - Whittingham Lane (B5269) West	5	5	0	10
	4 - James Towers Way (A6) North	0	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Whittingham Lane (B5269) East	0.80	13.78	4.2	B	934	1401
2 - James Towers Way (A6) South	0.82	8.54	4.7	A	1679	2519
3 - Whittingham Lane (B5269) West	0.50	14.55	1.0	B	212	318
4 - James Towers Way (A6) North	0.85	18.40	5.4	C	926	1389

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	766	192	762	1636	0.468	763	800	0.0	1.0	4.471	A
2 - James Towers Way (A6) South	1378	344	178	2506	0.550	1373	1347	0.0	1.2	3.239	A
3 - Whittingham Lane (B5269) West	174	43	1418	887	0.196	173	133	0.0	0.3	5.284	A
4 - James Towers Way (A6) North	760	190	807	1544	0.492	756	784	0.0	1.0	4.587	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	915	229	912	1538	0.595	913	957	1.0	1.6	6.248	A
2 - James Towers Way (A6) South	1645	411	212	2480	0.663	1642	1613	1.2	2.0	4.384	A
3 - Whittingham Lane (B5269) West	208	52	1696	731	0.284	207	159	0.3	0.4	7.213	A
4 - James Towers Way (A6) North	907	227	965	1443	0.629	904	938	1.0	1.7	6.707	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	1121	280	1108	1411	0.794	1111	1168	1.6	3.9	12.719	B
2 - James Towers Way (A6) South	2015	504	259	2446	0.824	2005	1960	2.0	4.6	8.164	A
3 - Whittingham Lane (B5269) West	254	64	2070	520	0.489	252	193	0.4	1.0	14.012	B
4 - James Towers Way (A6) North	1111	278	1178	1308	0.849	1097	1144	1.7	5.1	16.298	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	1121	280	1120	1403	0.799	1120	1174	3.9	4.2	13.779	B
2 - James Towers Way (A6) South	2015	504	261	2445	0.824	2014	1979	4.6	4.7	8.541	A
3 - Whittingham Lane (B5269) West	254	64	2080	514	0.495	254	195	1.0	1.0	14.552	B
4 - James Towers Way (A6) North	1111	278	1184	1304	0.852	1110	1150	5.1	5.4	18.403	C

17:00 - 17:15

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	915	229	929	1527	0.599	925	967	4.2	1.7	6.623	A
2 - James Towers Way (A6) South	1645	411	215	2478	0.664	1656	1639	4.7	2.1	4.539	A
3 - Whittingham Lane (B5269) West	208	52	1710	722	0.287	210	161	1.0	0.4	7.413	A
4 - James Towers Way (A6) North	907	227	974	1437	0.631	922	946	5.4	1.8	7.238	A

17:15 - 17:30

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Whittingham Lane (B5269) East	766	192	769	1631	0.470	769	805	1.7	1.0	4.564	A
2 - James Towers Way (A6) South	1378	344	179	2505	0.550	1381	1360	2.1	1.3	3.292	A
3 - Whittingham Lane (B5269) West	174	43	1426	883	0.197	175	134	0.4	0.3	5.345	A
4 - James Towers Way (A6) North	760	190	812	1540	0.493	763	789	1.8	1.0	4.690	A

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: A6 - James Towers Way Roundabout.j9
Path: Z:\Job Library\2020\200590 - Keyfold Farm Residential Development\Traffic Data\Junction Models\Future Neighbourhood Plan Development Junction Models
Report generation date: 23/12/2021 10:46:54

- »2031 + Committed, AM
- »2031 + Committed, PM
- »2031 + 330 Dev No Connection, AM
- »2031 + 330 Dev No Connection, PM
- »2031 + 330 Dev 50% WL, AM
- »2031 + 330 Dev 50% WL, PM
- »2031 + 280 Dev No Connection, AM
- »2031 + 280 Dev No Connection, PM
- »2031 + 280 Dev 50% WL, AM
- »2031 + 280 Dev 50% WL, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2031 + Committed								
1 - Garstang Road (A6) North	6.6	19.53	0.87	C	6.8	19.76	0.88	C
2 - James Towers Way	1.5	6.65	0.58	A	4.5	14.49	0.82	B
3 - Garstang Road (A6) South	0.3	5.13	0.22	A	0.5	7.59	0.35	A
2031 + 330 Dev No Connection								
1 - Garstang Road (A6) North	6.7	19.84	0.87	C	7.1	20.68	0.89	C
2 - James Towers Way	1.5	6.72	0.59	A	4.6	14.80	0.83	B
3 - Garstang Road (A6) South	0.3	5.17	0.22	A	0.5	7.65	0.35	A
2031 + 330 Dev 50% WL								
1 - Garstang Road (A6) North	6.4	18.72	0.87	C	7.5	21.77	0.89	C
2 - James Towers Way	1.4	6.16	0.59	A	5.0	16.07	0.83	C
3 - Garstang Road (A6) South	0.3	5.18	0.22	A	0.5	7.64	0.35	A
2031 + 280 Dev No Connection								
1 - Garstang Road (A6) North	6.4	18.72	0.87	C	7.4	21.64	0.89	C
2 - James Towers Way	1.4	6.16	0.59	A	5.0	16.03	0.83	C
3 - Garstang Road (A6) South	0.3	5.17	0.22	A	0.5	7.64	0.35	A
2031 + 280 Dev 50% WL								
1 - Garstang Road (A6) North	6.4	18.72	0.87	C	7.5	21.77	0.89	C
2 - James Towers Way	1.4	6.16	0.59	A	5.0	16.07	0.83	C
3 - Garstang Road (A6) South	0.3	5.18	0.22	A	0.5	7.64	0.35	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

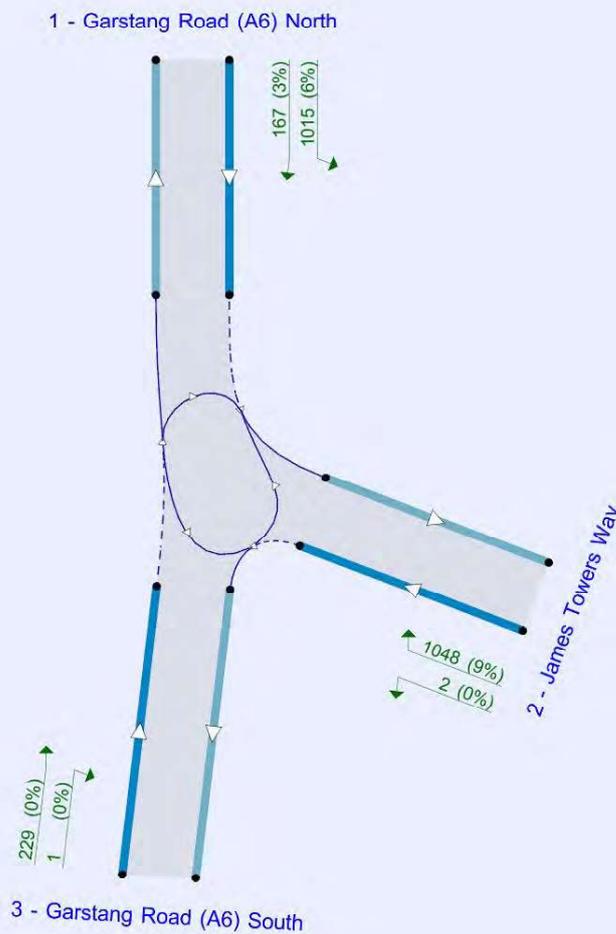
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	15/05/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SCP\sam.chapman
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2031 + Committed	AM	ONE HOUR	07:00	08:30	15	✓
D2	2031 + Committed	PM	ONE HOUR	16:00	17:30	15	✓
D5	2031 + 330 Dev No Connection	AM	ONE HOUR	07:00	08:30	15	✓
D6	2031 + 330 Dev No Connection	PM	ONE HOUR	16:00	17:30	15	✓
D7	2031 + 330 Dev 50% WL	AM	ONE HOUR	07:00	08:30	15	✓
D8	2031 + 330 Dev 50% WL	PM	ONE HOUR	16:00	17:30	15	✓
D9	2031 + 280 Dev No Connection	AM	ONE HOUR	07:00	08:30	15	✓
D10	2031 + 280 Dev No Connection	PM	ONE HOUR	16:00	17:30	15	✓
D11	2031 + 280 Dev 50% WL	AM	ONE HOUR	07:00	08:30	15	✓
D12	2031 + 280 Dev 50% WL	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2031 + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		2, 3, 1	13.68	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Garstang Road (A6) North	
2	James Towers Way	
3	Garstang Road (A6) South	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Garstang Road (A6) North	4.60	4.60	0.0	27.0	50.0	18.0	
2 - James Towers Way	4.60	4.60	0.0	36.0	50.0	13.0	
3 - Garstang Road (A6) South	4.60	4.60	0.0	23.0	50.0	45.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Garstang Road (A6) North	0.580	1470
2 - James Towers Way	0.595	1506
3 - Garstang Road (A6) South	0.525	1330

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2031 + Committed	AM	ONE HOUR	07:00	08:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00