

Appendix P: Traffic Impact Assessment Technical Notes 1 to 19

Northern Gateway Traffic Model Runs

Table 1: Core Tests

Run 0	2022 Baseline	TIA 1
	2039 Do Minimum Policy On	
Run 5	2032 Do Minimum	TIA 2
Run 6	2032 Do Something 1a - Policy Off (Non Vision-Led) - including 395,000sqm of the JPA1.1 Allocation Site - excluding the M62 Access solution - including Common Highway Mitigation Package and J18 DCO works - Whittle Lane capacity constrained and South Heywood Link Closed	TIA 3
Run 8	2032 Do Something 3a - Policy Off (Non Vision-Led) - including 395,000sqm of the JPA1.1 Allocation Site & 473 dwellings within JPA1.2 Allocation Site expected to be built in 2032 - excluding the M62 Access solution - including Common Highway Mitigation Package and J18 DCO works - Whittle Lane capacity constrained and South Heywood Link Closed	TIA 4
Run 10	2039 Do Minimum	TIA 6
Run 11	2039 Do Something 1a - Policy Off (Non Vision-Led) - including all of the JPA1.1 Allocation Site - excluding the M62 Access solution - including Common Highway Mitigation Package and J18 DCO works - Whittle Lane capacity constrained and South Heywood Link Closed	TIA 7
Run 12	2039 Do Something 1b - Policy Off (Non Vision-Led) - including all of the JPA1.1 Allocation Site - including the M62 Access solution - including Common Highway Mitigation Package and J18 DCO works - Whittle Lane capacity constrained and South Heywood Link Closed	TIA 8
Run 13	2039 Do Something 3a - Policy Off (Non Vision-Led) - including all of the JPA1.1 Allocation Site & all of the JPA1.2 Allocation Site - excluding the M62 Access solution - including Common Highway Mitigation Package and J18 DCO works - Whittle Lane capacity constrained and South Heywood Link Closed	TIA 9

Run 14	2039 Do Something 3b • 3b Policy Off (Non Vision-Led) • including all of the JPA1.1 Allocation Site & all of the JPA1.2 Allocation Site • including the M62 Access solution • including Common Highway Mitigation Package and J18 DCO works • Whittle Lane capacity constrained and South Heywood Link Closed	TIA 10
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Table 2 Sensitivity Tests

Run 17	2039 Do Something 3 - S1 – Whittle Lane • Policy Off (Non Vision-Led) • including all of the JPA1.1 Allocation Site & all of the JPA1.2 Allocation Site • excluding the M62 Access solution • including Common Highway Mitigation Package and J18 DCO works • Whittle Lane Closed – Public Transport Only Link and South Heywood Link Closed	TIA 11
Run 18	2039 Do Something 1 - S2.1 – South Heywood Link • Policy Off (Non Vision-Led) • including all of the JPA1.1 Allocation Site • including the M62 Access solution • including Common Highway Mitigation Package and J18 DCO works • Whittle Lane capacity constrained and South Heywood Link connection provided.	TIA 12
Run 19	2039 Do Something 3 – S2.2 – South Heywood Link • Policy Off (Non Vision-Led) • including all of the JPA1.1 Allocation Site & all of the JPA1.2 Allocation Site • including the M62 Access solution • including Common Highway Mitigation Package and J18 DCO works • Whittle Lane capacity constrained and South Heywood Link connection provided.	TIA 13
Run 20	2039 Do Something 3 - S.3.1 – Policy On • Policy On (Vision-Led) • including all of the JPA1.1 Allocation Site & all of the JPA1.2 Allocation Site • including the M62 Access solution • including Common Highway Mitigation Package and J18 DCO works • Whittle Lane capacity constrained and South Heywood Link Closed	TIA 14
Run 21	2039 Do Something 3 - S.3.2 – Policy On • Policy On (Vision-Led) • including all of the JPA1.1 Allocation Site & all of the JPA1.2 Allocation Site • excluding the M62 Access solution	TIA 15

	- including Common Highway Mitigation Package and J18 DCO works - Whittle Lane capacity constrained and South Heywood Link Closed	
Run 22.1	2039 Do Something 1 - S.4.1 – Proposed Scheme Quantum with M62 Access - Policy Off (Non Vision-Led) - including the Proposed Scheme traffic generation - including the M62 Access solution - including Common Highway Mitigation Package and J18 DCO works - Whittle Lane capacity constrained and South Heywood Link Closed	TIA 16
Run 22.2	2039 Do Something 1 - S.4.2 – Proposed Scheme Quantum without M62 Access - Policy Off (Non Vision-Led) - including the Proposed Scheme traffic generation - excluding the M62 Access solution - including Common Highway Mitigation Package and J18 DCO works - Whittle Lane capacity constrained and South Heywood Link Closed	TIA 17
Run 22.3	2039 Do Something 1 - S.4.3 – Proposed Scheme Quantum Policy On - Policy On (Vision-Led) - including the Proposed Scheme traffic generation - excluding the M62 Access solution - including Common Highway Mitigation Package and J18 DCO works - Whittle Lane capacity constrained and South Heywood Link Closed	TIA 18
Run 25	2039 Do Something 3 - S.6 – Overall Future Vision - Policy On (Vision-Led) - including all of the JPA1.1 Allocation Site & all of the JPA1.2 Allocation Site - including the M62 Access solution - including Common Highway Mitigation Package and J18 DCO works - Whittle Lane closed (public transport only) and South Heywood Link connection provided.	TIA 19

Individual Junction Assessments

Traffic Impact Assessment 1 – 2022 Base/ 2039 Policy On Do Minimum (SATURN Model Run 0)

Table TIA1.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	21	15	3	17	17	3	43	22	3
M62 Westbound Offslip, O/S Lane	92	45	12	61	25	4	91	52	10
M62 Westbound Offslip, Circulating, N/S Lane	43	12	4	38	2	3	38	4	3
M62 Westbound Offslip, Circulating, O/S Lane	44	2	3	21	2	4	23	3	4
A6046 Middleton Road Northbound, N/S Lane	64	29	4	45	21	3	38	17	3
A6046 Middleton Road Northbound, O/S Lane	82	41	6	56	23	4	59	21	5
A6046 Middleton Road Northbound, Circulating, N/S Lane	28	0	0	27	11	0	32	1	0
A6046 Middleton Road Northbound, Circulating, O/S Lane	85	15	15	47	4	8	72	13	10
M62 Eastbound Offslip, N/S Lane	74	39	5	76	43	4	87	54	7
M62 Eastbound Offslip, O/S Lane	25	24	3	35	25	3	34	24	3
M62 Eastbound Offslip, Circulating, N/S Lane	35	9	7	12	9	3	26	9	5
M62 Eastbound Offslip, Circulating, O/S Lane	42	4	4	34	6	3	47	5	3
Queen Elizabeth II Way, N/S Lane	25	21	3	15	18	3	32	23	3
Queen Elizabeth II Way, O/S Lane	41	23	3	30	19	3	44	25	3
Queen Elizabeth II Way, Circulating, N/S Lane	60	8	5	53	6	4	67	8	5
Queen Elizabeth II Way, Circulating, O/S Lane	10	0	0	11	0	0	13	0	0
A6046 Middleton Road Southbound, N/S Lane	63	17	6	83	35	7	58	16	5
A6046 Middleton Road Southbound, O/S Lane	50	14	5	40	18	3	31	11	3
A6046 Middleton Road Southbound, Circulating, N/S Lane	46	15	4	38	9	6	54	16	8
A6046 Middleton Road Southbound, Circulating, O/S Lane	40	17	8	26	5	3	45	16	8

Table TIA1.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	41%	32	3.5	10%	27	0.7	23%	30	1.9
Queen Elizabeth II Way (W) Ahead Right	49%	33	5.4	24%	29	2.4	37%	32	3.9
Queen Elizabeth II Way (E) Left Ahead	26%	30	1.7	18%	30	0.9	21%	33	1.5
Queen Elizabeth II Way (E) Right Ahead	31%	31	3.1	25%	30	2.4	35%	33	3.6
Manchester Road (N) Left Ahead Right	19%	17	2.3	19%	17	2.3	41%	19	5.5
Manchester Road (S) Ahead Right Left	54%	23	7.3	33%	20	3.9	37%	20	4.8
Total Delay Over All Lanes(pcuHr)		12			7			11	

Table TIA1.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	66%	26	7.1	41%	22	3.6	48%	23	4.1
Internal - Northbound Ahead	35%	2	0.3	16%	2	0.1	28%	2	0.2
Internal - Northbound Right	10%	6	0.6	5%	2	0.6	3%	2	0.0
Internal - Southbound Ahead	23%	3	0.6	18%	4	0.8	23%	5	1.1
Internal - Southbound Right	0%	0	0.0	0%	0	0.0	0%	0	0.0
Harehills Road South Left	0%	0	0.0	0%	0	0.0	0%	0	0.0
Harehills Road South Ahead	60%	20	6.8	28%	16	2.5	51%	20	4.9
Hill Top Road Left Right	26%	24	1.2	35%	23	1.5	44%	22	2.1
Unnamed Road Left	0%	0	0.0	0%	0	0.0	0%	0	0.0
Unnamed Road Right	0%	0	0.0	0%	0	0.0	0%	0	0.0
Total Delay Over All Lanes(pcuHr)		7			4			6	

Table TIA1.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	49%	20	5.5	45%	17	4.4	43%	15	5.7
Hareshill Road Right Ahead	36%	11	3.9	19%	8	1.4	30%	8	2.5
Pilsworth Road (n) Left Right	48%	19	4.2	35%	19	2.3	41%	26	3.1
Total Delay Over All Lanes(pcuHr)		6			4			5	

Table TIA1.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	66%	10	13.6	59%	10	8.1	64%	11	11.6
Pilsworth Road Right Left	99%	126	16.2	75%	39	6.0	86%	55	9.9
A58 Bridge Street (W) Ahead Right	99%	84	27.1	73%	22	9.5	85%	35	15.1
Total Delay Over All Lanes(pcuHr)		30			9			15	

Table TIA1.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.14	10	0.2	0.18	10	0.3	0.17	10	0.3
Heywood Dist. Park to Pilsworth Rd (W)	0.21	17	0.4	0.29	16	0.6	0.35	18	0.8
Heywood Distribution Park - RT	0.26	9	0.4	0.13	7	0.2	0.09	7	0.1
Avg. Jun. Delay (s/pcu)		3			4			4	

Table TIA1.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0	0	0	0	0	0	0	0	0
Plot 3 (SHEA) to Pilsworth Road (E)	0	0	0	0	0	0	0	0	0
Plot 3 (SHEA) RT	0	0	0	0	0	0	0	0	0
Avg. Jun. Delay (s/pcu)		0			0			0	

Table TIA1.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	0.77	40	0.8	0.44	16	0.8	0.72	33	2.4
Moss Hall Road (NW) - Right Turners	0.59	11	0.6	0.42	8	1.1	0.50	10	1.5
Avg. Jun. Delay (s/pcu)		10			5			9	

Table TIA1.10: Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road	85.6%	53	14.8	72.4%	33	9.3	82.3%	48	13.7
Moss Hall Road (N)	58.9%	30	6.3	37.6%	26	3.2	40.5%	26	4.2
Moss Hall Road (S)	85.2%	37	20.2	71.7%	30	10.1	80.5%	33	17.7
Avg. Jun. Delay (s/pcu)		17			10			14	

Table TIA1.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
	Bridge Hall Lane - Signalised T-Junction								
Bridge Hall Lane Westbound, N/S Lane	6	23	0	7	20	0	11	20	1
Bridge Hall Lane Westbound, O/S Lane	24	25	1	24	22	1	19	21	1
Bridge Hall Lane Northbound	15	2	2	16	3	0	5	3	0
	M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction								
M66 Southbound Off-Slip, N/S Lane	26	4	4	18	4	4	14	4	4
M66 Southbound Off-Slip, Middle Lane	7	3	0	5	3	0	6	3	0
M66 Southbound Off-Slip, O/S Lane	10	3	4	9	3	4	11	3	4
Bridge Hall Lane Westbound, N/S Lane	7	6	0	12	8	0	15	9	0
Bridge Hall Lane Westbound, O/S Lane	25	7	0	38	11	0	27	11	0
	M66 Junction 2 Interchange								
M66 Southbound Off-Slip, N/S Lane	62	19	5	46	17	3	51	19	3
M66 Southbound Off-Slip, Middle Lane	19	11	2	17	10	2	23	13	2
M66 Southbound Off-Slip, O/S Lane	27	12	2	29	11	2	37	16	2
M66 Southbound Off-Slip, Circulating, N/S Lane	60	10	10	58	11	8	59	7	10
M66 Southbound Off-Slip, Circulating, Middle Lane	53	3	3	49	4	5	46	3	3
M66 Southbound Off-Slip, Circulating, O/S Lane	54	2	0	47	2	0	42	2	1
A58 Bury New Road, N/S Lane	76	26	10	59	22	5	75	27	7
A58 Bury New Road, Middle Lane	44	17	4	27	17	2	40	17	3
A58 Bury New Road, O/S Lane	35	15	3	27	17	2	28	16	2
A58 Bury New Road, Circulating, N/S Lane	64	4	10	55	3	10	61	10	12
A58 Bury New Road, Circulating, Middle Lane	79	13	13	61	6	10	64	8	10
A58 Bury New Road, Circulating, O/S Lane	18	26	3	17	18	3	18	5	2
M66 Northbound Off-Slip, N/S Lane	101	117	33	66	20	6	97	67	16
M66 Northbound Off-Slip, Middle Lane	101	111	29	71	20	7	96	59	15
M66 Northbound Off-Slip, O/S Lane	25	14	4	19	12	4	25	16	4
M66 Northbound Off-Slip, Circulating, N/S Lane	99	85	16	83	32	7	77	23	6
M66 Northbound Off-Slip, Circulating, Middle Lane	98	71	14	79	23	4	78	19	6
M66 Northbound Off-Slip, Circulating, O/S Lane	52	19	5	42	18	3	35	7	2
Waterfold, N/S Lane	12	24	0	14	24	0	14	24	0
Waterfold, O/S Lane	18	25	2	32	27	2	51	31	3
A58 Rochdale Road, N/S Lane	58	15	13	59	13	12	67	13	14
A58 Rochdale Road, Middle Lane	58	16	13	51	12	12	51	10	13
A58 Rochdale Road, O/S Lane	63	12	6	51	9	4	48	7	5
A58 Rochdale Road, Circulating, N/S Lane	0	26	0	1	26	0	1	3	0
A58 Rochdale Road, Circulating, Middle Lane	61	15	8	54	15	7	65	24	8
A58 Rochdale Road, Circulating, O/S Lane	2	26	0	5	26	2	12	3	0
	A58 Rochdale Road/ B6621 Wash Lane								
A58 Rochdale Road Eastbound, N/S Lane	73	27	7	70	26	6	74	28	7
A58 Rochdale Road Eastbound, O/S Lane	60	22	5	63	23	6	67	23	6
B6221 Wash Lane, N/S Lane	52	12	5	47	10	4	48	11	4
B6221 Wash Lane, O/S Lane	46	10	5	40	9	4	43	10	4
A58 Rochdale Road Westbound, N/S Lane	49	2	0	38	1	0	45	1	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	27	1	0	32	1	0
A58 Rochdale Road Westbound, O/S Lane	66	12	5	55	5	3	73	19	8

Table TIA1.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0.24	8	0.4	0.20	8	0.3	0.38	14	0.7
Whittle Lane - Heywood Old Rd (S)	0.03	14	0.0	0.06	12	0.1	0.26	24	0.4
Heywood Old Road (N) - Whittle Lane	0.33	8	0.5	0.15	6	0.2	0.27	9	0.4
Avg. Jun. Delay (s/pcu)		2			2			3	

Table TIA1.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	79%	47	15.1	42%	30	5.3	42%	26	7.1
Langley Lane Right Left	79%	46	13.8	47%	33	4.9	76%	56	9.2
Heywood Old Road Ahead Right	79%	50	7.7	47%	26	4.6	76%	30	14.9
A6045 exit	15%	1	0.1	15%	1	0.1	32%	1	0.2
Total Delay Over All Lanes(pcuHr)		18			7			15	

Table TIA1.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.19	15	0.2	0.04	10	0.0	0.02	13	0.0
Langley Lane to A6046 (S)	0.57	28	1.4	0.33	15	0.5	0.50	25	1.1
A6046 (N) to Langley Lane	0.01	7	0.0	0.02	7	0.0	0.08	8	0.1
Avg. Jun. Delay (s/pcu)		4			2			3	

Table TIA1.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	75%	29	8.2	60%	23	4.9	49%	20	5.3
Coronation Road Right Left	89%	48	9.7	70%	32	4.5	89%	52	9.4
Manchester Road (S) Ahead Right	89%	49	11.5	89%	46	9.6	89%	41	13.4
Total Delay Over All Lanes(pcuHr)		15			10			14	

Table TIA1.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.73	11	2.6	0.53	6	1.1	0.66	9	1.9
Hollins Lane	0.55	18	1.2	0.42	14	0.7	0.44	16	0.8
Hollins Brow	0.73	13	2.6	0.54	8	1.2	0.65	10	1.8
Avg. Jun. Delay (s/pcu)		13			8			10	

Table TIA1.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	89%	45	12.5	78%	29	9.0	90%	46	15.1
Manchester Road (S) Ahead	76%	22	11.5	76%	23	10.5	89%	34	18.5
Manchester Road (S) Right	53%	29	1.9	53%	25	2.2	67%	38	3.0
Manchester Road (N) Left Ahead	90%	33	13.8	76%	25	8.8	89%	34	14.3
Total Delay Over All Lanes(pcuHr)		22			15			27	

Table TIA1.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	38%	21	3.8	36%	14	4.1	75%	18	10.3
A576 Middleton Road Right Ahead	70%	27	9.5	51%	16	7.2	66%	15	9.3
Kelvin Avenue Left Right Ahead	3%	13	0.2	3%	20	0.2	2%	22	0.1
Manchester Old Road Ahead Left Right	55%	23	4.7	38%	14	3.6	90%	37	6.7
Heywood Old Road Right Ahead Left	70%	25	8.6	52%	26	4.4	81%	39	7.2
Total Delay Over All Lanes(pcuHr)		12			8			17	

Individual Junction Assessments

Traffic Impact Assessment 2 – 2032 Do Minimum (SATURN Model Run 5)

Table TIA2.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	19	10	3	26	18	3	32	16	3
M62 Westbound Offslip, O/S Lane	115	510	111	76	31	6	86	35	10
M62 Westbound Offslip, Circulating, N/S Lane	74	21	8	42	6	3	59	15	7
M62 Westbound Offslip, Circulating, O/S Lane	66	21	10	27	5	4	33	10	6
A6046 Middleton Road Northbound, N/S Lane	61	26	4	58	21	4	55	21	4
A6046 Middleton Road Northbound, O/S Lane	94	63	13	74	27	6	83	35	9
A6046 Middleton Road Northbound, Circulating, N/S Lane	40	7	17	33	5	1	42	27	1
A6046 Middleton Road Northbound, Circulating, O/S Lane	100	126	56	66	8	10	85	31	20
M62 Eastbound Offslip, N/S Lane	56	29	3	73	40	4	75	38	5
M62 Eastbound Offslip, O/S Lane	25	23	3	31	24	3	49	27	3
M62 Eastbound Offslip, Circulating, N/S Lane	40	10	4	22	7	4	33	5	6
M62 Eastbound Offslip, Circulating, O/S Lane	65	9	7	44	4	3	55	3	3
Queen Elizabeth II Way, N/S Lane	31	20	3	27	19	3	39	24	3
Queen Elizabeth II Way, O/S Lane	86	41	9	60	25	4	71	33	5
Queen Elizabeth II Way, Circulating, N/S Lane	68	11	6	57	6	4	72	9	5
Queen Elizabeth II Way, Circulating, O/S Lane	16	1	3	17	1	0	22	0	0
A6046 Middleton Road Southbound, N/S Lane	64	18	6	73	24	6	60	16	5
A6046 Middleton Road Southbound, O/S Lane	55	15	5	38	15	3	35	12	3
A6046 Middleton Road Southbound, Circulating, N/S Lane	48	15	7	43	13	6	57	23	9
A6046 Middleton Road Southbound, Circulating, O/S Lane	78	20	11	52	11	7	75	23	11

Table TIA2.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	60%	36	7.3	7%	20	0.8	52%	34	5.6
Queen Elizabeth II Way (W) Ahead Right	58%	35	8.0	50%	26	7.4	49%	33	6.1
Queen Elizabeth II Way (E) Left Ahead	43%	34	4.4	9%	21	1.0	39%	36	3.3
Queen Elizabeth II Way (E) Right Ahead	42%	34	5.1	38%	25	5.1	45%	35	4.0
Manchester Road (N) Left Ahead Right	38%	21	4.2	50%	29	5.1	52%	23	7.4
Manchester Road (S) Ahead Right Left	60%	26	9.0	47%	32	5.5	43%	23	6.1
Total Delay Over All Lanes(pcuHr)		19			13			18	

Table TIA2.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	49%	18	6.9	51%	23	4.8	59%	25	5.5
Internal - Northbound Ahead	42%	2	0.4	34%	2	0.3	41%	3	0.5
Internal - Northbound Right	8%	5	0.6	5%	3	0.0	3%	3	0.0
Internal - Southbound Ahead	24%	3	0.7	23%	4	0.8	28%	4	1.0
Internal - Southbound Right	8%	11	0.6	4%	6	0.0	2%	6	0.0
Harehills Road South Left	12%	5	1.0	10%	6	0.7	4%	6	0.3
Harehills Road South Ahead	58%	17	8.7	50%	19	5.2	61%	22	6.4
Hill Top Road Left Right	32%	31	1.5	32%	22	1.4	33%	20	1.3
Unnamed Road Left	12%	35	0.6	18%	28	0.9	27%	27	1.4
Unnamed Road Right	24%	36	1.4	27%	28	1.5	30%	27	1.7
Total Delay Over All Lanes(pcuHr)		8			7			8	

Table TIA2.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	58%	22	6.8	58%	19	6.1	55%	16	8.0
Hareshill Road Right Ahead	51%	12	4.6	31%	9	2.9	47%	9	3.2
Pilsworth Road (n) Left Right	60%	20	5.6	44%	19	3.0	54%	28	4.5
Total Delay Over All Lanes(pcuHr)		8			5			7	

Table TIA2.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	68%	10	14.1	59%	10	9.4	65%	11	13.6
Pilsworth Road Right Left	118%	351	50.1	77%	43	7.3	95%	88	15.2
A58 Bridge Street (W) Ahead Right	117%	327	70.6	80%	28	12.5	96%	63	23.8
Total Delay Over All Lanes(pcuHr)		108			11			26	

Table TIA2.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.28	12	0.6	0.31	13	0.7	0.26	13	0.5
Heywood Dist. Park to Pilsworth Rd (W)	0.40	24	1.0	0.53	28	1.7	0.53	28	1.6
Heywood Distribution Park - RT	0.35	10	0.7	0.36	10	0.7	0.23	8	0.3
Avg. Jun. Delay (s/pcu)		5			8			6	

Table TIA2.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0.03	10	0.0	0.05	10	0.1	0.05	10	0.1
Plot 3 (SHEA) to Pilsworth Road (E)	0.04	16	0.1	0.05	13	0.1	0.05	15	0.1
Plot 3 (SHEA) RT	0.06	8	0.1	0.04	8	0.1	0.02	8	0.0
Avg. Jun. Delay (s/pcu)		0			1			1	

Table TIA2.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	1.02	159	14.2	0.63	26	1.7	0.80	48	3.5
Moss Hall Road (NW) - Right Turners	0.53	9	2.1	0.43	9	1.2	0.54	10	1.9
Avg. Jun. Delay (s/pcu)		32			6			11	

Table TIA2.10: Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road	89%	64	18.6	80%	44	12.7	86%	58	17.9
Moss Hall Road (N)	69%	38	6.6	38%	28	3.2	44%	28	5.2
Moss Hall Road (S)	89%	43	26.1	79%	32	15.8	86%	40	24.6
Avg. Jun. Delay (s/pcu)		22			13			19	

Table TIA2.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Bridge Hall Lane - Signalised T-Junction									
Bridge Hall Lane Westbound, N/S Lane	5	22	0	8	21	0	8	17	1
Bridge Hall Lane Westbound, O/S Lane	23	24	1	28	23	2	16	18	1
Bridge Hall Lane Northbound	17	1	2	17	1	0	7	2	0
M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction									
M66 Southbound Off-Slip, N/S Lane	26	4	4	18	4	4	16	4	4
M66 Southbound Off-Slip, Middle Lane	6	3	0	6	3	0	7	3	1
M66 Southbound Off-Slip, O/S Lane	14	3	4	10	3	4	12	3	4
Bridge Hall Lane Westbound, N/S Lane	7	29	0	11	7	0	19	12	0
Bridge Hall Lane Westbound, O/S Lane	28	31	2	37	10	0	33	15	0
M66 Junction 2 Interchange									
M66 Southbound Off-Slip, N/S Lane	66	21	6	57	21	3	65	25	3
M66 Southbound Off-Slip, Middle Lane	16	14	2	24	12	2	31	16	2
M66 Southbound Off-Slip, O/S Lane	42	15	3	39	14	2	50	19	3
M66 Southbound Off-Slip, Circulating, N/S Lane	55	9	10	56	8	12	66	9	13
M66 Southbound Off-Slip, Circulating, Middle Lane	58	5	5	49	5	3	55	2	5
M66 Southbound Off-Slip, Circulating, O/S Lane	58	5	3	47	4	3	49	2	3
A58 Bury New Road, N/S Lane	111	292	89	70	26	6	82	32	11
A58 Bury New Road, Middle Lane	36	23	3	33	18	3	42	18	3
A58 Bury New Road, O/S Lane	36	23	3	29	17	2	28	16	2
A58 Bury New Road, Circulating, N/S Lane	68	5	12	60	5	10	77	13	13
A58 Bury New Road, Circulating, Middle Lane	78	10	11	67	7	8	82	21	14
A58 Bury New Road, Circulating, O/S Lane	25	25	5	18	10	3	21	24	4
M66 Northbound Off-Slip, N/S Lane	113	419	146	81	29	9	100	179	59
M66 Northbound Off-Slip, Middle Lane	99	82	21	86	31	11	98	72	20
M66 Northbound Off-Slip, O/S Lane	29	15	4	26	14	4	35	15	4
M66 Northbound Off-Slip, Circulating, N/S Lane	98	77	18	84	30	7	96	65	14
M66 Northbound Off-Slip, Circulating, Middle Lane	93	41	9	83	24	5	97	65	15
M66 Northbound Off-Slip, Circulating, O/S Lane	45	17	4	40	15	3	40	18	3
Waterfold, N/S Lane	15	24	2	16	25	2	17	25	2
Waterfold, O/S Lane	25	26	2	39	28	2	65	36	3
A58 Rochdale Road, N/S Lane	62	14	13	55	13	12	77	22	21
A58 Rochdale Road, Middle Lane	64	17	15	57	13	12	63	18	14
A58 Rochdale Road, O/S Lane	67	12	7	52	9	5	63	13	7
A58 Rochdale Road, Circulating, N/S Lane	0	30	0	1	3	0	1	16	0
A58 Rochdale Road, Circulating, Middle Lane	65	18	8	72	28	8	73	16	8
A58 Rochdale Road, Circulating, O/S Lane	4	30	0	8	4	0	14	17	2
A58 Rochdale Road/ B6621 Wash Lane									
A58 Rochdale Road Eastbound, N/S Lane	82	32	9	73	27	7	78	28	8
A58 Rochdale Road Eastbound, O/S Lane	62	21	6	66	23	6	76	25	8
B6221 Wash Lane, N/S Lane	53	13	5	49	11	4	56	14	6
B6221 Wash Lane, O/S Lane	48	11	5	43	10	4	51	12	5
A58 Rochdale Road Westbound, N/S Lane	48	1	0	42	1	0	50	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	33	1	0	38	1	0
A58 Rochdale Road Westbound, O/S Lane	64	20	9	59	9	3	79	16	9

Table TIA2.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0.19	8	0.3	0.19	9	0.3	0.37	14	0.6
Whittle Lane - Heywood Old Rd (S)	0.09	16	0.1	0.09	14	0.1	0.24	25	0.3
Heywood Old Road (N) - Whittle Lane	0.31	8	0.5	0.20	7	0.3	0.28	9	0.4
Avg. Jun. Delay (s/pcu)		2			2			3	

Table TIA2.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	81%	49	14.7	41%	28	5.9	46%	25	8.1
Langley Lane Right Left	79%	44	13.7	56%	38	6.4	81%	61	10.4
Heywood Old Road Ahead Right	65%	37	6.4	56%	26	8.1	81%	32	18.3
A6045 exit	19%	1	0.1	23%	1	0.1	36%	1	0.3
Total Delay Over All Lanes(pcuHr)		17			9			16	

Table TIA2.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.23	15	0.3	0.06	12	0.1	0.05	14	0.1
Langley Lane to A6046 (S)	0.55	32	1.3	0.37	22	0.6	0.51	35	1.1
A6046 (N) to Langley Lane	0.02	7	0.0	0.03	8	0.0	0.11	9	0.1
Avg. Jun. Delay (s/pcu)		3			2			2	

Table TIA2.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	60%	22	7.7	55%	20	5.6	54%	20	6.8
Coronation Road Right Left	84%	42	9.5	78%	41	5.0	90%	54	10.4
Manchester Road (S) Ahead Right	84%	35	13.1	80%	30	9.7	88%	38	14.8
Total Delay Over All Lanes(pcuHr)		13			9			15	

Table TIA2.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.70	10	2.3	0.58	7	1.4	0.73	11	2.7
Hollins Lane	0.63	22	1.7	0.52	17	1.1	0.50	18	1.0
Hollins Brow	0.81	18	4.0	0.64	10	1.7	0.72	12	2.5
Avg. Jun. Delay (s/pcu)		15			9			12	

Table TIA2.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	98%	82	18.2	88%	50	15.4	95%	63	17.9
Manchester Road (S) Ahead	94%	39	21.4	69%	21	13.2	94%	43	22.6
Manchester Road (S) Right	52%	29	1.8	87%	70	5.2	62%	37	2.4
Manchester Road (N) Left Ahead	98%	52	22.3	88%	32	17.4	94%	41	18.5
Total Delay Over All Lanes(pcuHr)		41			24			35	

Table TIA2.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	40%	19	5.0	47%	12	4.4	72%	18	11.0
A576 Middleton Road Right Ahead	78%	28	14.1	63%	14	7.9	80%	21	14.8
Kelvin Avenue Left Right Ahead	3%	17	0.3	4%	21	0.2	2.7%	23	0.1
Manchester Old Road Ahead Left Right	68%	24	6.5	62%	17	3.4	81%	39	8.1
Heywood Old Road Right Ahead Left	79%	35	11.0	62%	27	4.2	80%	40	7.8
Total Delay Over All Lanes(pcuHr)		17			9			17	

Individual Junction Assessments

Traffic Impact Assessment 3 – 2032 DS1 Without M62 Access Solution (SATURN Model Run 6)

Table TIA3.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	18	10	3	16	11	3	26	14	3
M62 Westbound Offslip, O/S Lane	110	382	106	56	16	5	83	28	9
M62 Westbound Offslip, Circulating, N/S Lane	79	33	11	62	13	5	66	16	7
M62 Westbound Offslip, Circulating, O/S Lane	63	37	10	35	17	4	33	5	3
A6046 Middleton Road Northbound, N/S Lane	73	46	4	62	22	4	57	22	4
A6046 Middleton Road Northbound, O/S Lane	117	489	84	74	27	6	84	35	10
A6046 Middleton Road Northbound, Circulating, N/S Lane	38	1	0	31	1	0	42	5	1
A6046 Middleton Road Northbound, Circulating, O/S Lane	100	117	56	72	19	17	86	26	14
M62 Eastbound Offslip, N/S Lane	57	31	4	48	24	3	72	36	5
M62 Eastbound Offslip, O/S Lane	34	25	3	24	20	3	55	28	3
M62 Eastbound Offslip, Circulating, N/S Lane	50	13	8	32	4	3	38	4	3
M62 Eastbound Offslip, Circulating, O/S Lane	51	7	6	55	3	3	88	32	12
Queen Elizabeth II Way, N/S Lane	37	18	3	36	18	3	67	31	4
Queen Elizabeth II Way, O/S Lane	72	25	7	63	23	5	87	48	8
Queen Elizabeth II Way, Circulating, N/S Lane	68	12	6	63	12	6	68	11	7
Queen Elizabeth II Way, Circulating, O/S Lane	18	0	0	20	7	3	24	5	3
A6046 Middleton Road Southbound, N/S Lane	84	33	9	62	17	5	64	19	6
A6046 Middleton Road Southbound, O/S Lane	64	21	6	30	11	3	35	13	3
A6046 Middleton Road Southbound, Circulating, N/S Lane	48	8	3	45	7	4	58	12	4
A6046 Middleton Road Southbound, Circulating, O/S Lane	67	10	8	74	18	10	82	19	10

Table TIA3.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	65%	31	8.2	41%	22	3.6	49%	38	7.7
Queen Elizabeth II Way (W) Ahead Right	67%	32	9.5	44%	23	4.5	52%	42	8.6
Queen Elizabeth II Way (E) Left Ahead	46%	27	4.9	41%	23	3.4	53%	45	7.7
Queen Elizabeth II Way (E) Right Ahead	45%	28	5.5	43%	23	4.2	54%	47	8.5
Manchester Road (N) Left Ahead Right	52%	25	4.7	60%	26	4.7	54%	28	10.1
Manchester Road (S) Ahead Right Left	67%	31	8.7	53%	29	4.5	42%	28	7.7
Total Delay Over All Lanes(pcuHr)		21			14			25	

Table TIA3.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	45%	12	10.0	47%	16	8.1	59%	20	10.4
Internal - Northbound Ahead	50%	2	0.6	37%	2	0.4	43%	3	0.6
Internal - Northbound Right	8%	7	0.6	6%	6	0.0	3%	8	0.0
Internal - Southbound Ahead	29%	2	0.5	31%	3	1.0	40%	3	1.2
Internal - Southbound Right	11%	14	0.1	4%	7	0.0	2%	7	0.0
Harehills Road South Left	10%	3	1.0	8%	4	0.7	4%	4	0.3
Harehills Road South Ahead	58%	13	13.9	45%	14	7.3	46%	15	7.2
Hill Top Road Left Right	57%	74	3.7	47%	42	2.6	49%	40	2.7
Unnamed Road Left	38%	69	2.2	29%	46	1.6	55%	48	3.6
Unnamed Road Right	22%	64	1.3	36%	46	2.2	20%	39	1.3
Total Delay Over All Lanes(pcuHr)		10			9			11	

Table TIA3.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	78%	27	10.9	61%	20	15.6	75%	19	14.4
Hareshill Road Right Ahead	66%	14	9.0	44%	12	7.2	61%	10	4.5
Pilsworth Road (n) Left Right	79%	28	8.5	61%	43	7.9	71%	37	5.9
Total Delay Over All Lanes(pcuHr)		13			11			10	

Table TIA3.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	70%	11	17.2	61%	12	11.8	64%	11	14.4
Pilsworth Road Right Left	123%	435	61.8	85%	55	10.8	93%	81	14.5
A58 Bridge Street (W) Ahead Right	123%	415	90.7	84%	35	15.7	94%	58	23.8
Total Delay Over All Lanes(pcuHr)		137			15			24	

Table TIA3.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.30	10	0.4	0.37	11	0.6	0.29	10	0.4
Heywood Dist. Park to Pilsworth Rd (W)	0.61	34	1.5	0.67	33	1.9	0.70	37	2.2
Heywood Distribution Park - RT	0.43	10	0.7	0.42	10	0.7	0.23	8	0.3
Avg. Jun. Delay (s/pcu)		4			6			5	

Table TIA3.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0.04	9	0.0	0.05	7	0.1	0.06	8	0.1
Plot 3 (SHEA) to Pilsworth Road (E)	0.07	21	0.1	0.07	13	0.1	0.07	16	0.1
Plot 3 (SHEA) RT	0.07	8	0.1	0.05	6	0.1	0.02	7	0.0
Avg. Jun. Delay (s/pcu)		0			0			0	

Table TIA3.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0.50	3	1.0	0.33	2	0.5	0.37	2	0.6
Moss Hall Road (S)	0.32	3	0.5	0.41	4	0.7	0.53	5	1.1
New Link Road	0.51	3	1.0	0.37	3	0.6	0.38	3	0.6
Moss Hall Road (NW)	0.02	5	0.0	0.04	4	0.0	0.02	4	0.0
Avg. Jun. Delay (s/pcu)		3			3			3	

Table TIA3.10: Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	0.47	3	0.9	0.42	3	0.7	0.60	4	1.5
Pilsworth Road	0.49	3	1.0	0.41	3	0.7	0.51	4	1.0
Moss Hall Road (N)	0.29	5	0.4	0.14	4	0.2	0.15	4	0.2
Avg. Jun. Delay (s/pcu)		3			3			4	

Table TIA3.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Bridge Hall Lane - Signalised T-Junction									
Bridge Hall Lane Westbound, N/S Lane	7	23	0	8	21	0	12	21	1
Bridge Hall Lane Westbound, O/S Lane	26	26	2	29	23	2	23	22	1
Bridge Hall Lane Northbound	17	2	2	17	2	0	6	2	0
M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction									
M66 Southbound Off-Slip, N/S Lane	18	4	4	14	4	4	13	3	4
M66 Southbound Off-Slip, Middle Lane	6	3	0	6	3	0	7	3	1
M66 Southbound Off-Slip, O/S Lane	14	3	4	10	3	4	12	3	4
Bridge Hall Lane Westbound, N/S Lane	8	6	0	11	7	0	18	5	0
Bridge Hall Lane Westbound, O/S Lane	28	8	0	37	10	0	34	7	0
M66 Junction 2 Interchange									
M66 Southbound Off-Slip, N/S Lane	57	22	3	47	19	3	37	15	2
M66 Southbound Off-Slip, Middle Lane	19	16	2	24	12	2	24	12	2
M66 Southbound Off-Slip, O/S Lane	50	17	3	39	14	2	38	15	2
M66 Southbound Off-Slip, Circulating, N/S Lane	55	7	12	55	8	12	66	10	15
M66 Southbound Off-Slip, Circulating, Middle Lane	56	4	5	54	5	5	66	5	5
M66 Southbound Off-Slip, Circulating, O/S Lane	56	4	3	51	4	3	58	3	1
A58 Bury New Road, N/S Lane	109	263	77	67	25	6	85	38	11
A58 Bury New Road, Middle Lane	40	25	3	38	19	3	55	22	4
A58 Bury New Road, O/S Lane	39	25	3	29	18	2	30	18	2
A58 Bury New Road, Circulating, N/S Lane	70	10	12	66	7	12	78	11	13
A58 Bury New Road, Circulating, Middle Lane	81	14	11	73	9	10	82	15	11
A58 Bury New Road, Circulating, O/S Lane	24	14	5	18	10	3	20	11	3
M66 Northbound Off-Slip, N/S Lane	112	428	150	83	30	10	106	258	86
M66 Northbound Off-Slip, Middle Lane	99	83	22	87	32	11	98	74	19
M66 Northbound Off-Slip, O/S Lane	32	16	4	29	14	4	38	16	4
M66 Northbound Off-Slip, Circulating, N/S Lane	100	96	19	89	45	9	96	68	15
M66 Northbound Off-Slip, Circulating, Middle Lane	94	44	10	89	33	8	98	68	14
M66 Northbound Off-Slip, Circulating, O/S Lane	46	16	4	40	15	3	36	13	3
Waterfold, N/S Lane	15	24	2	16	25	2	17	25	2
Waterfold, O/S Lane	26	26	2	39	28	2	64	36	3
A58 Rochdale Road, N/S Lane	68	14	13	60	13	11	69	19	14
A58 Rochdale Road, Middle Lane	68	17	15	62	14	13	67	20	15
A58 Rochdale Road, O/S Lane	66	10	7	57	9	5	70	14	7
A58 Rochdale Road, Circulating, N/S Lane	0	4	0	1	3	0	1	2	0
A58 Rochdale Road, Circulating, Middle Lane	75	28	9	75	29	8	69	23	8
A58 Rochdale Road, Circulating, O/S Lane	5	4	0	9	4	0	14	2	0
A58 Rochdale Road/ B6621 Wash Lane									
A58 Rochdale Road Eastbound, N/S Lane	75	24	8	77	29	7	77	27	8
A58 Rochdale Road Eastbound, O/S Lane	58	18	6	70	25	7	76	25	8
B6221 Wash Lane, N/S Lane	60	16	6	50	11	4	56	14	6
B6221 Wash Lane, O/S Lane	55	14	6	44	10	4	52	12	5
A58 Rochdale Road Westbound, N/S Lane	48	2	0	44	1	0	51	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	34	1	0	38	1	0
A58 Rochdale Road Westbound, O/S Lane	71	11	6	59	9	3	74	10	6

Table TIA3.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0.15	7	0.2	0.19	8	0.2	0.34	12	0.5
Whittle Lane - Heywood Old Rd (S)	0.02	13	0.0	0.07	12	0.1	0.15	20	0.2
Heywood Old Road (N) - Whittle Lane	0.25	6	0.3	0.15	6	0.2	0.26	8	0.3
Avg. Jun. Delay (s/pcu)		1			2			2	

Table TIA3.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	77%	47	13.5	49%	28	5.0	44%	25	7.2
Langley Lane Right Left	77%	42	13.2	60%	36	4.9	82%	60	10.1
Heywood Old Road Ahead Right	56%	35	6.1	59%	23	7.0	81%	32	17.5
A6045 exit	18%	1	0.1	24%	1	0.2	36%	1	0.3
Total Delay Over All Lanes(pcuHr)		15			8			16	

Table TIA3.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.21	13	0.3	0.06	11	0.1	0.05	14	0.0
Langley Lane to A6046 (S)	0.52	28	1.0	0.41	22	0.7	0.54	35	1.1
A6046 (N) to Langley Lane	0.02	7	0.0	0.03	7	0.0	0.11	8	0.1
Avg. Jun. Delay (s/pcu)		3			2			2	

Table TIA3.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	58%	22	8.2	45%	17	5.4	54%	21	7.1
Coronation Road Right Left	88%	52	12.4	66%	34	4.9	85%	45	9.6
Manchester Road (S) Ahead Right	88%	44	15.4	64%	21	8.6	88%	38	15.2
Total Delay Over All Lanes(pcuHr)		17			7			14	

Table TIA3.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.75	12	3.0	0.60	7	1.5	0.76	12	3.1
Hollins Lane	0.67	25	2.0	0.57	20	1.3	0.54	21	1.2
Hollins Brow	0.86	25	5.6	0.64	10	1.7	0.73	13	2.6
Avg. Jun. Delay (s/pcu)		19			10			13	

Table TIA3.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	106%	195	38.2	87%	38	11.8	99%	86	21.8
Manchester Road (S) Ahead	80%	23	21.9	81%	25	12.4	92%	38	20.3
Manchester Road (S) Right	100%	173	9.1	74%	38	3.6	67%	37	2.8
Manchester Road (N) Left Ahead	105%	140	72.7	85%	29	11.5	99%	62	28.5
Total Delay Over All Lanes(pcuHr)		90			21			46	

Table TIA3.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	43%	16	3.7	52%	12	4.3	71%	17	10.0
A576 Middleton Road Right Ahead	82%	25	11.1	68%	15	7.5	82%	20	14.3
Kelvin Avenue Left Right Ahead	4%	15	0.2	4%	19	0.1	3%	22	0.1
Manchester Old Road Ahead Left Right	62%	16	4.8	63%	13	3.1	73%	17	7.4
Heywood Old Road Right Ahead Left	85%	37	9.5	70%	28	4.0	83%	42	7.6
Total Delay Over All Lanes(pcuHr)		15			9			17	

Individual Junction Assessments

Traffic Impact Assessment 4 – 2032 DS3 Without M62 Access Solution (SATURN Model Run 8)

Table TIA4.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	20	16	3	21	15	3	25	13	3
M62 Westbound Offslip, O/S Lane	144	1035	205	77	28	7	80	26	9
M62 Westbound Offslip, Circulating, N/S Lane	55	10	7	49	9	4	69	17	7
M62 Westbound Offslip, Circulating, O/S Lane	53	5	3	28	7	4	38	10	6
A6046 Middleton Road Northbound, N/S Lane	73	40	5	66	24	5	61	24	4
A6046 Middleton Road Northbound, O/S Lane	102	227	44	80	32	7	89	45	11
A6046 Middleton Road Northbound, Circulating, N/S Lane	35	1	6	34	5	1	40	23	1
A6046 Middleton Road Northbound, Circulating, O/S Lane	97	44	24	70	8	10	87	27	20
M62 Eastbound Offslip, N/S Lane	64	35	4	74	41	4	76	39	5
M62 Eastbound Offslip, O/S Lane	40	27	3	36	25	3	55	28	3
M62 Eastbound Offslip, Circulating, N/S Lane	40	3	3	30	8	5	40	6	7
M62 Eastbound Offslip, Circulating, O/S Lane	87	32	12	45	4	3	53	2	3
Queen Elizabeth II Way, N/S Lane	41	20	3	45	22	3	87	51	7
Queen Elizabeth II Way, O/S Lane	85	35	9	79	34	6	82	42	6
Queen Elizabeth II Way, Circulating, N/S Lane	66	15	7	58	6	4	70	8	4
Queen Elizabeth II Way, Circulating, O/S Lane	19	8	3	18	1	0	23	0	0
A6046 Middleton Road Southbound, N/S Lane	79	29	8	79	27	8	70	22	7
A6046 Middleton Road Southbound, O/S Lane	77	27	8	38	16	3	42	15	4
A6046 Middleton Road Southbound, Circulating, N/S Lane	48	15	4	49	10	7	69	14	10
A6046 Middleton Road Southbound, Circulating, O/S Lane	71	22	12	60	10	8	70	20	11

Table TIA4.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	61%	30	9.0	8%	19	1.0	56%	33	5.3
Queen Elizabeth II Way (W) Ahead Right	65%	33	10.3	58%	26	10.2	58%	32	7.0
Queen Elizabeth II Way (E) Left Ahead	41%	27	5.2	9%	20	1.1	52%	32	5.0
Queen Elizabeth II Way (E) Right Ahead	42%	28	5.8	52%	25	8.9	50%	32	5.7
Manchester Road (N) Left Ahead Right	59%	29	5.5	58%	34	6.2	58%	24	7.1
Manchester Road (S) Ahead Right Left	65%	32	9.0	52%	37	6.2	45%	25	5.6
Total Delay Over All Lanes(pcuHr)		22			17			20	

Table TIA4.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	51%	15	10.1	51%	18	8.2	61%	20	10.3
Internal - Northbound Ahead	54%	3	0.7	39%	2	0.4	44%	3	1.1
Internal - Northbound Right	9%	8	0.6	6%	6	0.0	3%	8	0.0
Internal - Southbound Ahead	31%	2	0.5	32%	3	1.1	40%	3	1.2
Internal - Southbound Right	10%	17	0.6	4%	8	0.0	2%	7	0.0
Harehills Road South Left	11%	4	1.0	8%	5	0.7	4%	4	0.3
Harehills Road South Ahead	65%	16	14.2	49%	15	7.5	48%	15	7.1
Hill Top Road Left Right	46%	53	2.8	43%	36	2.2	47%	36	2.5
Unnamed Road Left	31%	53	1.8	26%	40	1.4	59%	49	3.7
Unnamed Road Right	18%	49	1.0	33%	41	2.0	19%	38	1.1
Total Delay Over All Lanes(pcuHr)		11			9			11	

Table TIA4.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	75%	29	12.5	68%	19	11.5	74%	19	14.4
Hareshill Road Right Ahead	71%	18	11.7	41%	9	4.8	61%	10	4.6
Pilsworth Road (n) Left Right	75%	28	9.2	66%	33	5.6	72%	39	6.1
Total Delay Over All Lanes(pcuHr)		14			9			10	

Table TIA4.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	72%	11	16.0	61%	12	12.0	64%	12	15.0
Pilsworth Road Right Left	122%	400	56.8	83%	54	10.6	94%	87	15.5
A58 Bridge Street (W) Ahead Right	131%	497	103.0	85%	37	16.5	94%	60	25.1
Total Delay Over All Lanes(pcuHr)		147			15			25	

Table TIA4.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.30	15	0.6	0.37	17	0.9	0.30	16	0.6
Heywood Dist. Park to Pilsworth Rd (W)	0.61	51	2.2	0.68	51	2.9	0.70	56	3.2
Heywood Distribution Park - RT	0.43	12	0.9	0.43	12	0.9	0.23	9	0.4
Avg. Jun. Delay (s/pcu)		6			9			8	

Table TIA4.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0.04	13	0.1	0.05	11	0.1	0.06	11	0.1
Plot 3 (SHEA) to Pilsworth Road (E)	0.07	30	0.1	0.07	18	0.1	0.07	22	0.1
Plot 3 (SHEA) RT	0.07	10	0.1	0.05	8	0.1	0.02	9	0.0
Avg. Jun. Delay (s/pcu)		1			1			0	

Table TIA4.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0.50	3	1.0	0.33	2	0.5	0.37	2	0.6
Moss Hall Road (S)	0.32	3	0.5	0.41	4	0.7	0.55	5	1.2
New Link Road	0.50	3	1.0	0.38	3	0.6	0.38	3	0.6
Moss Hall Road (NW)	0.02	5	0.0	0.04	4	0.0	0.02	4	0.0
Avg. Jun. Delay (s/pcu)		3			3			3	

Table TIA4.10: Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	0.47	3	0.9	0.42	3	0.7	0.61	4	1.5
Pilsworth Road	0.49	3	1.0	0.42	3	0.7	0.51	4	1.0
Moss Hall Road (N)	0.28	5	0.4	0.14	4	0.2	0.15	4	0.2
Avg. Jun. Delay (s/pcu)		3			3			4	

Table TIA4.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
	Bridge Hall Lane - Signalised T-Junction								
Bridge Hall Lane Westbound, N/S Lane	6	23	0	8	21	0	12	21	1
Bridge Hall Lane Westbound, O/S Lane	23	24	1	29	23	2	23	22	1
Bridge Hall Lane Northbound	17	1	2	17	2	0	6	2	0
	M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction								
M66 Southbound Off-Slip, N/S Lane	18	4	4	14	4	4	13	3	4
M66 Southbound Off-Slip, Middle Lane	6	3	0	6	3	0	7	3	1
M66 Southbound Off-Slip, O/S Lane	14	3	4	10	3	4	12	3	4
Bridge Hall Lane Westbound, N/S Lane	8	29	0	11	7	0	18	5	0
Bridge Hall Lane Westbound, O/S Lane	28	31	2	37	10	0	34	7	0
	M66 Junction 2 Interchange								
M66 Southbound Off-Slip, N/S Lane	48	17	3	47	19	3	37	15	2
M66 Southbound Off-Slip, Middle Lane	16	14	2	24	12	2	24	12	2
M66 Southbound Off-Slip, O/S Lane	42	15	3	39	14	2	38	15	2
M66 Southbound Off-Slip, Circulating, N/S Lane	60	10	10	55	9	12	66	11	15
M66 Southbound Off-Slip, Circulating, Middle Lane	62	6	5	54	5	5	66	5	5
M66 Southbound Off-Slip, Circulating, O/S Lane	61	5	3	51	4	3	58	3	1
A58 Bury New Road, N/S Lane	107	216	66	67	25	6	88	41	12
A58 Bury New Road, Middle Lane	38	23	3	38	19	3	54	22	4
A58 Bury New Road, O/S Lane	37	23	3	29	18	2	30	18	2
A58 Bury New Road, Circulating, N/S Lane	72	6	13	66	7	12	78	11	13
A58 Bury New Road, Circulating, Middle Lane	82	12	11	73	9	10	82	15	11
A58 Bury New Road, Circulating, O/S Lane	25	25	5	18	10	3	20	11	5
M66 Northbound Off-Slip, N/S Lane	112	436	152	83	30	10	106	254	85
M66 Northbound Off-Slip, Middle Lane	99	81	21	88	32	11	98	74	20
M66 Northbound Off-Slip, O/S Lane	33	16	4	30	14	4	38	16	4
M66 Northbound Off-Slip, Circulating, N/S Lane	101	143	28	89	45	9	97	73	15
M66 Northbound Off-Slip, Circulating, Middle Lane	95	47	10	89	33	8	99	71	15
M66 Northbound Off-Slip, Circulating, O/S Lane	47	17	4	40	15	3	36	13	3
Waterfold, N/S Lane	15	24	2	16	25	2	17	25	2
Waterfold, O/S Lane	26	26	2	39	28	2	64	36	3
A58 Rochdale Road, N/S Lane	67	16	13	60	13	11	69	19	14
A58 Rochdale Road, Middle Lane	71	20	18	62	14	13	67	20	15
A58 Rochdale Road, O/S Lane	71	13	8	57	9	5	70	14	7
A58 Rochdale Road, Circulating, N/S Lane	0	30	0	1	3	0	1	2	0
A58 Rochdale Road, Circulating, Middle Lane	69	19	9	76	30	8	70	23	8
A58 Rochdale Road, Circulating, O/S Lane	4	30	1	9	4	0	14	2	0
	A58 Rochdale Road/ B6621 Wash Lane								
A58 Rochdale Road Eastbound, N/S Lane	86	37	10	78	30	7	77	27	8
A58 Rochdale Road Eastbound, O/S Lane	67	23	6	70	25	7	76	25	8
B6221 Wash Lane, N/S Lane	55	13	6	49	11	4	56	14	6
B6221 Wash Lane, O/S Lane	50	11	5	44	10	4	51	12	5
A58 Rochdale Road Westbound, N/S Lane	48	2	0	44	1	0	51	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	35	1	0	38	1	0
A58 Rochdale Road Westbound, O/S Lane	66	20	9	59	9	3	75	10	6

Table TIA4.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0.14	8	0.2	0.18	8	0.2	0.34	13	0.6
Whittle Lane - Heywood Old Rd (S)	0.03	14	0.0	0.07	13	0.1	0.12	20	0.1
Heywood Old Road (N) - Whittle Lane	0.25	7	0.4	0.15	7	0.2	0.26	9	0.4
Avg. Jun. Delay (s/pcu)		2			2			2	

Table TIA4.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	73%	45	11.2	44%	28	5.7	45%	26	7.2
Langley Lane Right Left	73%	38	11.7	56%	36	5.8	81%	58	10.1
Heywood Old Road Ahead Right	55%	34	6.4	55%	25	7.4	81%	32	16.8
A6045 exit	19%	1	0.1	23%	1	0.1	35%	1	0.3
Total Delay Over All Lanes(pcuHr)		14			9			16	

Table TIA4.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.23	15	0.3	0.03	13	0.0	0.05	16	0.1
Langley Lane to A6046 (S)	0.54	34	1.3	0.43	25	0.8	0.55	39	1.3
A6046 (N) to Langley Lane	0.02	8	0.0	0.03	8	0.0	0.11	9	0.1
Avg. Jun. Delay (s/pcu)		3			2			3	

Table TIA4.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	56%	22	8.2	46%	17	5.5	51%	20	6.4
Coronation Road Right Left	92%	62	13.8	64%	33	4.9	85%	44	9.3
Manchester Road (S) Ahead Right	91%	49	16.6	65%	22	8.3	85%	34	13.7
Total Delay Over All Lanes(pcuHr)		19			7			13	

Table TIA4.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.75	12	3.0	0.60	7	1.5	0.76	12	3.1
Hollins Lane	0.67	25	2.0	0.58	20	1.3	0.54	21	1.2
Hollins Brow	0.86	25	5.6	0.64	10	1.7	0.73	13	2.6
Avg. Jun. Delay (s/pcu)		19			10			13	

Table TIA4.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	97%	75	17.1	85%	36	11.5	106%	190	41.7
Manchester Road (S) Ahead	96%	46	23.0	82%	26	12.7	80%	26	20.5
Manchester Road (S) Right	61%	31	2.3	77%	42	3.8	98%	146	8.0
Manchester Road (N) Left Ahead	97%	51	21.3	85%	30	11.7	106%	146	70.3
Total Delay Over All Lanes(pcuHr)		41			21			93	

Table TIA4.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	38%	19	4.7	51%	13	4.5	77%	18	10.8
A576 Middleton Road Right Ahead	79%	28	14.8	68%	15	8.0	81%	19	13.2
Kelvin Avenue Left Right Ahead	3%	18	0.3	4%	19	0.2	3%	23	0.1
Manchester Old Road Ahead Left Right	79%	28	7.6	67%	17	3.7	82%	33	6.8
Heywood Old Road Right Ahead Left	81%	37	11.7	68%	27	4.4	80%	40	6.6
Total Delay Over All Lanes(pcuHr)		18			10			16	

Individual Junction Assessments

Traffic Impact Assessment 6 – 2039 Do Minimum Modelling (SATURN Model Run 10)

Table TIA6.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	22	11	3	28	18	3	27	16	3
M62 Westbound Offslip, O/S Lane	89	32	13	78	33	6	90	41	11
M62 Westbound Offslip, Circulating, N/S Lane	67	22	6	44	7	4	64	17	8
M62 Westbound Offslip, Circulating, O/S Lane	65	8	4	28	5	6	34	10	6
A6046 Middleton Road Northbound, N/S Lane	77	53	5	69	25	5	57	22	4
A6046 Middleton Road Northbound, O/S Lane	152	1107	183	84	35	8	88	42	11
A6046 Middleton Road Northbound, Circulating, N/S Lane	35	10	2	35	4	0	42	26	1
A6046 Middleton Road Northbound, Circulating, O/S Lane	98	44	29	66	8	13	87	34	21
M62 Eastbound Offslip, N/S Lane	83	52	5	78	45	4	76	39	5
M62 Eastbound Offslip, O/S Lane	30	25	3	34	25	3	54	28	3
M62 Eastbound Offslip, Circulating, N/S Lane	47	9	5	23	8	4	34	5	6
M62 Eastbound Offslip, Circulating, O/S Lane	59	10	10	46	4	3	57	3	3
Queen Elizabeth II Way, N/S Lane	37	17	3	31	20	3	41	25	3
Queen Elizabeth II Way, O/S Lane	83	32	9	65	26	4	76	36	5
Queen Elizabeth II Way, Circulating, N/S Lane	69	16	7	59	6	4	74	10	5
Queen Elizabeth II Way, Circulating, O/S Lane	17	9	3	19	1	0	25	0	0
A6046 Middleton Road Southbound, N/S Lane	126	578	127	77	25	8	64	17	6
A6046 Middleton Road Southbound, O/S Lane	100	141	19	40	15	3	35	12	3
A6046 Middleton Road Southbound, Circulating, N/S Lane	47	4	3	45	13	6	58	24	9
A6046 Middleton Road Southbound, Circulating, O/S Lane	57	4	7	57	12	8	81	27	12

Table TIA6.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	58%	32	6.8	15%	21	0.8	49%	32	4.3
Queen Elizabeth II Way (W) Ahead Right	65%	34	9.2	57%	26	7.2	63%	33	7.9
Queen Elizabeth II Way (E) Left Ahead	42%	30	4.1	13%	22	1.1	26%	31	2.3
Queen Elizabeth II Way (E) Right Ahead	46%	31	5.8	44%	25	5.1	43%	32	5
Manchester Road (N) Left Ahead Right	56%	25	5.3	59%	26	5.1	63%	26	9.3
Manchester Road (S) Ahead Right Left	66%	29	9.6	50%	28	5	46%	24	6
Total Delay Over All Lanes(pcuHr)		21			14			18	

Table TIA6.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	59%	21	8	55%	23	5.4	62%	26	5.8
Internal - Northbound Ahead	47%	3	0.5	38%	3	0.4	45%	3	0.5
Internal - Northbound Right	8%	7	0.6	6%	4	0	3%	3	0
Internal - Southbound Ahead	28%	3	0.7	25%	4	0.9	29%	4	1.1
Internal - Southbound Right	8%	14	0.6	4%	7	0	2%	8	0
Harehills Road South Left	12%	5	1	9%	6	0.7	4%	6	0.3
Harehills Road South Ahead	69%	20	10.5	57%	20	6.2	67%	24	7.2
Hill Top Road Left Right	31%	29	1.4	33%	22	1.4	34%	20	1.3
Unnamed Road Left	11%	33	0.5	19%	28	0.9	27%	27	1.4
Unnamed Road Right	23%	34	1.3	26%	28	1.5	30%	27	1.7
Total Delay Over All Lanes(pcuHr)		10			8			9	

Table TIA6.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	66%	23	8.2	63%	20	7	58%	17	8.6
Hareshill Road Right Ahead	52%	12	5.5	35%	9	3.3	54%	10	3.5
Pilsworth Road (n) Left Right	64%	22	6.1	46%	19	3.2	58%	29	4.8
Total Delay Over All Lanes(pcuHr)		9			6			7	

Table TIA6.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	68%	10	15.8	58%	10	10.7	65%	12	15.1
Pilsworth Road Right Left	125%	463	70.2	84%	56	9.6	96%	92	16.3
A58 Bridge Street (W) Ahead Right	126%	447	100.2	82%	30	15.6	99%	86	30.1
Total Delay Over All Lanes(pcuHr)		154			14			31	

Table TIA6.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.36	14	0.8	0.36	15	0.8	0.29	14	0.6
Heywood Dist. Park to Pilsworth Rd (W)	0.43	27	1.1	0.62	36	2.4	0.59	33	2
Heywood Distribution Park - RT	0.45	12	1	0.43	11	0.9	0.26	9	0.4
Avg. Jun. Delay (s/pcu)		6			10			7	

Table TIA6.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0.03	10	0	0.05	10	0.1	0.05	10	0.1
Plot 3 (SHEA) to Pilsworth Road (E)	0.05	17	0.1	0.05	14	0.1	0.05	15	0.1
Plot 3 (SHEA) RT	0.06	8	0.1	0.04	8	0.1	0.02	8	0
Avg. Jun. Delay (s/pcu)		0			1			1	

Table TIA6.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	1.02	159	13.9	0.65	27	1.8	0.80	50	3.6
Moss Hall Road (NW) - Right Turners	0.38	7	1.3	0.42	8	1.2	0.51	10	1.8
Avg. Jun. Delay (s/pcu)		31			6			11	

Table TIA6.10: : Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road	90%	67	20.4	76%	46	15.2	86%	58	18.8
Moss Hall Road (N)	77%	50	6.8	37%	32	3.8	47%	30	5.2
Moss Hall Road (S)	90%	46	28.4	76%	35	19.3	87%	42	26.0
Avg. Jun. Delay (s/pcu)		24			14			20	

Table TIA6.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
	Bridge Hall Lane - Signalised T-Junction								
Bridge Hall Lane Westbound, N/S Lane	7	23	0	8	20	0	12	20	1
Bridge Hall Lane Westbound, O/S Lane	28	26	2	28	22	2	22	21	1
Bridge Hall Lane Northbound	18	1	0	19	2	1	6	4	0
	M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction								
M66 Southbound Off-Slip, N/S Lane	24	4	4	18	4	4	17	4	4
M66 Southbound Off-Slip, Middle Lane	9	3	4	6	3	0	8	3	4
M66 Southbound Off-Slip, O/S Lane	13	3	4	10	3	4	14	4	4
Bridge Hall Lane Westbound, N/S Lane	8	29	0	13	8	0	17	9	0
Bridge Hall Lane Westbound, O/S Lane	30	32	2	44	13	0	31	17	1
	M66 Junction 2 Interchange								
M66 Southbound Off-Slip, N/S Lane	51	15	5	48	17	3	57	20	5
M66 Southbound Off-Slip, Middle Lane	21	11	2	20	10	2	29	14	2
M66 Southbound Off-Slip, O/S Lane	30	12	2	33	12	2	47	17	3
M66 Southbound Off-Slip, Circulating, N/S Lane	64	14	12	67	15	15	75	12	18
M66 Southbound Off-Slip, Circulating, Middle Lane	67	7	5	59	5	8	63	6	5
M66 Southbound Off-Slip, Circulating, O/S Lane	67	6	3	55	2	0	55	4	3
A58 Bury New Road, N/S Lane	106	181	61	71	26	6	91	44	14
A58 Bury New Road, Middle Lane	49	23	4	33	17	3	44	18	4
A58 Bury New Road, O/S Lane	35	21	3	28	17	2	28	16	2
A58 Bury New Road, Circulating, N/S Lane	72	29	13	65	4	12	82	19	14
A58 Bury New Road, Circulating, Middle Lane	91	42	17	73	9	13	88	20	15
A58 Bury New Road, Circulating, O/S Lane	22	1	5	20	19	4	23	10	5
M66 Northbound Off-Slip, N/S Lane	124	608	205	81	28	10	108	290	97
M66 Northbound Off-Slip, Middle Lane	99	83	20	86	29	11	97	71	19
M66 Northbound Off-Slip, O/S Lane	31	16	4	31	13	4	42	17	4
M66 Northbound Off-Slip, Circulating, N/S Lane	97	72	16	97	74	12	94	61	11
M66 Northbound Off-Slip, Circulating, Middle Lane	100	81	17	95	58	10	96	61	16
M66 Northbound Off-Slip, Circulating, O/S Lane	43	13	4	45	18	3	38	11	2
Waterfold, N/S Lane	16	25	2	17	25	2	19	25	2
Waterfold, O/S Lane	27	26	2	41	28	2	69	39	4
A58 Rochdale Road, N/S Lane	64	14	12	60	16	11	76	20	19
A58 Rochdale Road, Middle Lane	65	17	14	60	16	14	68	16	19
A58 Rochdale Road, O/S Lane	62	12	6	60	12	6	63	10	6
A58 Rochdale Road, Circulating, N/S Lane	0	3	0	1	26	0	2	11	0
A58 Rochdale Road, Circulating, Middle Lane	76	21	6	69	18	8	88	39	12
A58 Rochdale Road, Circulating, O/S Lane	5	3	0	7	26	2	17	12	1
	A58 Rochdale Road/ B6621 Wash Lane								
A58 Rochdale Road Eastbound, N/S Lane	80	28	9	82	33	8	82	31	9
A58 Rochdale Road Eastbound, O/S Lane	59	19	6	70	25	7	81	28	9
B6221 Wash Lane, N/S Lane	56	15	6	50	11	4	59	15	6
B6221 Wash Lane, O/S Lane	52	13	5	44	10	4	54	12	6
A58 Rochdale Road Westbound, N/S Lane	47	1	0	44	1	0	50	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	35	1	0	38	1	0
A58 Rochdale Road Westbound, O/S Lane	67	16	6	60	9	3	76	20	7

Table TIA6.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0.12	8	0.2	0.18	9	0.2	0.35	13	0.6
Whittle Lane - Heywood Old Rd (S)	0.12	17	0.1	0.09	14	0.1	0.26	26	0.4
Heywood Old Road (N) - Whittle Lane	0.32	8	0.5	0.2	7	0.3	0.28	9	0.4
Avg. Jun. Delay (s/pcu)		2			2			3	

Table TIA6.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	81%	50	14.1	53%	31	5.8	80%	37	8
Langley Lane Right Left	81%	44	13.9	62%	35	6	83%	45	7.5
Heywood Old Road Ahead Right	54%	34	8	62%	26	8	83%	26	12
A6045 exit	23%	1	0.1	25%	1	0.2	36%	1	0.3
Total Delay Over All Lanes(pcuHr)		17			10			15	

Table TIA6.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.26	16	0.4	0.03	13	0	0.06	15	0.1
Langley Lane to A6046 (S)	0.52	38	1.1	0.37	24	0.6	0.53	40	1.2
A6046 (N) to Langley Lane	0.02	8	0	0.04	8	0	0.13	9	0.2
Avg. Jun. Delay (s/pcu)		3			1			2	

Table TIA6.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	60%	22	8	49%	17	5.7	54%	21	7
Coronation Road Right Left	88%	48	10.3	71%	36	5.1	86%	45	9.8
Manchester Road (S) Ahead Right	88%	38	14.7	71%	23	9.4	88%	38	15.2
Total Delay Over All Lanes(pcuHr)		15			8			14	

Table TIA6.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.72	10	2.5	0.6	7	1.5	0.76	12	3
Hollins Lane	0.67	25	2	0.6	22	1.5	0.52	19	1.1
Hollins Brow	0.85	23	5.2	0.73	13	2.7	0.75	14	2.9
Avg. Jun. Delay (s/pcu)		18			12			13	

Table TIA6.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	96%	70	17	91%	48	13.5	99%	87	21.2
Manchester Road (S) Ahead	97%	53	26.4	82%	25	12.9	96%	51	23.3
Manchester Road (S) Right	68%	38	2.7	77%	43	3.8	52%	29	1.9
Manchester Road (N) Left Ahead	97%	49	21.6	91%	34	14.5	98%	58	25.5
Total Delay Over All Lanes(pcuHr)		43			25			48	

Table TIA6.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	57%	19	6	63%	18	8.7	93%	36	19.2
A576 Middleton Road Right Ahead	92%	41	16.8	76%	21	12.9	85%	24	16
Kelvin Avenue Left Right Ahead	4%	16	0.2	3%	22	0.2	4%	23	0.2
Manchester Old Road Ahead Left	90%	23	7.1	75%	37	9.3	90%	37	6.4
Manchester Old Road Ahead Right	91%	47	13.1	77%	34	7.8	92%	56	11.5
Total Delay Over All Lanes(pcuHr)		23			16			26	

Individual Junction Assessments

Traffic Impact Assessment 7 – 2039 DS1 Without M62 Access Solution (SATURN Model Run 11)

Table TIA7.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	9	11	3	19	12	3	21	13	3
M62 Westbound Offslip, O/S Lane	138	879	201	86	31	10	86	31	10
M62 Westbound Offslip, Circulating, N/S Lane	69	19	8	61	12	5	80	23	11
M62 Westbound Offslip, Circulating, O/S Lane	59	8	10	34	6	3	37	9	3
A6046 Middleton Road Northbound, N/S Lane	79	51	5	74	27	6	75	29	6
A6046 Middleton Road Northbound, O/S Lane	144	958	174	78	29	7	93	55	13
A6046 Middleton Road Northbound, Circulating, N/S Lane	34	8	1	35	3	1	42	19	1
A6046 Middleton Road Northbound, Circulating, O/S Lane	100	103	52	91	41	19	91	25	21
M62 Eastbound Offslip, N/S Lane	59	31	4	47	21	3	71	34	5
M62 Eastbound Offslip, O/S Lane	35	25	3	22	18	3	52	26	3
M62 Eastbound Offslip, Circulating, N/S Lane	48	5	3	52	9	6	44	2	3
M62 Eastbound Offslip, Circulating, O/S Lane	41	10	10	55	8	4	87	23	13
Queen Elizabeth II Way, N/S Lane	57	21	5	82	39	6	82	35	7
Queen Elizabeth II Way, O/S Lane	63	22	6	83	38	7	74	29	6
Queen Elizabeth II Way, Circulating, N/S Lane	56	13	5	61	8	4	72	13	7
Queen Elizabeth II Way, Circulating, O/S Lane	29	14	4	19	2	0	35	9	4
A6046 Middleton Road Southbound, N/S Lane	80	28	9	68	19	6	69	20	7
A6046 Middleton Road Southbound, O/S Lane	64	20	6	33	12	3	37	13	3
A6046 Middleton Road Southbound, Circulating, N/S Lane	57	9	7	60	11	4	64	8	4
A6046 Middleton Road Southbound, Circulating, O/S Lane	78	17	10	75	13	5	92	38	15

Table TIA7.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	75%	35	13.8	60%	30	7.5	69%	39	7.6
Queen Elizabeth II Way (W) Ahead Right	75%	37	15.3	59%	30	8.5	72%	38	9.9
Queen Elizabeth II Way (E) Left Ahead	41%	27	6.0	54%	34	5.7	54%	34	5.5
Queen Elizabeth II Way (E) Right Ahead	43%	28	6.9	57%	35	6.8	53%	34	6.3
Manchester Road (N) Left Ahead Right	78%	39	9.5	58%	27	7.2	72%	29	11.8
Manchester Road (S) Ahead Right Left	69%	37	10.9	42%	28	5.0	43%	24	5.8
Total Delay Over All Lanes(pcuHr)		30			21			25	

Table TIA7.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	48%	13	10.7	49%	15	9.5	58%	19	11.3
Internal - Northbound Ahead	63%	3	0.9	47%	2	0.5	48%	3	0.8
Internal - Northbound Right	9%	8	0.6	7%	7	0.6	3%	8	0.0
Internal - Southbound Ahead	31%	2	0.5	34%	3	1.1	41%	3	1.2
Internal - Southbound Right	15%	39	0.2	5%	11	0.0	2%	9	0.0
Harehills Road South Left	10%	3	1.0	8%	4	0.7	4%	4	0.3
Harehills Road South Ahead	75%	17	22.5	55%	14	11.1	53%	16	9.5
Hill Top Road Left Right	62%	76	4.1	56%	52	3.4	55%	45	3.2
Unnamed Road Left	30%	67	1.7	32%	52	1.8	55%	52	3.6
Unnamed Road Right	30%	66	1.9	41%	53	2.5	25%	43	1.6
Total Delay Over All Lanes(pcuHr)		14			11			12	

Table TIA7.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	89%	40	15.2	77%	23	14.7	79%	21	16.9
Hareshill Road Right Ahead	91%	28	19.0	54%	11	7.4	76%	12	5.8
Pilsworth Road (n) Left Right	90%	40	12.9	77%	38	7.8	78%	43	7.3
Total Delay Over All Lanes(pcuHr)		24			12			13	

Table TIA7.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	74%	11	18.0	60%	11	13.2	65%	11	15.1
Pilsworth Road Right Left	147%	632	104.6	103%	163	27.3	101%	142	24.0
A58 Bridge Street (W) Ahead Right	148%	688	144.2	101%	104	35.8	100%	100	34.7
Total Delay Over All Lanes(pcuHr)		236			44			41	

Table TIA7.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.38	12	0.6	0.47	14	0.9	0.36	12	0.6
Heywood Dist. Park to Pilsworth Rd (W)	0.97	159	7.9	0.88	88	5.4	0.79	58	3.4
Heywood Distribution Park - RT	0.61	15	1.5	0.51	12	1.0	0.30	9	0.4
Avg. Jun. Delay (s/pcu)		14			13			8	

Table TIA7.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0.06	11	0.1	0.06	8	0.1	0.06	8	0.1
Plot 3 (SHEA) to Pilsworth Road (E)	0.12	36	0.1	0.08	17	0.1	0.08	18	0.1
Plot 3 (SHEA) RT	0.08	10	0.1	0.06	7	0.1	0.03	7	0.0
Avg. Jun. Delay (s/pcu)		0			0			0	

Table TIA7.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0.76	9	3.2	0.47	3	0.9	0.41	3	0.7
Moss Hall Road (S)	0.51	5	1.0	0.82	12	4.4	0.99	60	24.9
New Link Road	0.76	7	3.0	0.51	3	1.1	0.38	3	0.6
Moss Hall Road (NW)	0.04	7	0.0	0.05	5	0.0	0.02	4	0.0
Avg. Jun. Delay (s/pcu)		7			7			29	

Table TIA7.10: Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	0.51	3	1.0	0.67	5	2.0	0.84	10	5.1
Pilsworth Road	0.65	5	1.9	0.55	4	1.2	0.52	4	1.1
Moss Hall Road (N)	0.54	8	1.2	0.19	4	0.2	0.15	4	0.2
Avg. Jun. Delay (s/pcu)		5			4			8	

Table TIA7.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
	Bridge Hall Lane - Signalised T-Junction								
Bridge Hall Lane Westbound, N/S Lane	8	24	0	9	21	0	4	8	0
Bridge Hall Lane Westbound, O/S Lane	29	26	2	31	23	2	9	8	1
Bridge Hall Lane Northbound	17	4	2	19	5	2	12	16	2
	M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction								
M66 Southbound Off-Slip, N/S Lane	19	4	4	16	5	4	25	16	4
M66 Southbound Off-Slip, Middle Lane	7	3	1	6	5	1	28	20	4
M66 Southbound Off-Slip, O/S Lane	16	4	4	11	5	4	28	16	4
Bridge Hall Lane Westbound, N/S Lane	8	3	0	9	0	0	5	0	0
Bridge Hall Lane Westbound, O/S Lane	27	5	0	28	2	0	10	0	0
	M66 Junction 2 Interchange								
M66 Southbound Off-Slip, N/S Lane	63	24	5	63	25	3	55	17	5
M66 Southbound Off-Slip, Middle Lane	23	16	2	31	17	2	123	520	23
M66 Southbound Off-Slip, O/S Lane	62	22	5	50	20	3	58	17	5
M66 Southbound Off-Slip, Circulating, N/S Lane	71	9	17	60	7	17	62	10	13
M66 Southbound Off-Slip, Circulating, Middle Lane	60	7	5	57	5	5	62	7	12
M66 Southbound Off-Slip, Circulating, O/S Lane	59	7	4	52	4	3	91	38	17
A58 Bury New Road, N/S Lane	134	707	195	87	41	9	88	37	14
A58 Bury New Road, Middle Lane	38	25	3	55	22	4	51	17	4
A58 Bury New Road, O/S Lane	25	23	2	34	19	3	25	14	2
A58 Bury New Road, Circulating, N/S Lane	76	14	13	73	10	13	94	38	18
A58 Bury New Road, Circulating, Middle Lane	88	20	15	78	9	13	98	78	25
A58 Bury New Road, Circulating, O/S Lane	27	6	7	18	2	5	24	5	5
M66 Northbound Off-Slip, N/S Lane	115	425	148	93	51	14	121	561	176
M66 Northbound Off-Slip, Middle Lane	99	79	21	98	69	18	96	70	17
M66 Northbound Off-Slip, O/S Lane	42	17	4	47	18	4	50	20	4
M66 Northbound Off-Slip, Circulating, N/S Lane	91	43	9	93	45	10	98	117	30
M66 Northbound Off-Slip, Circulating, Middle Lane	99	79	19	92	38	13	99	81	18
M66 Northbound Off-Slip, Circulating, O/S Lane	31	5	3	38	4	0	33	13	2
Waterfold, N/S Lane	15	24	2	20	25	2	19	25	2
Waterfold, O/S Lane	30	26	2	40	28	2	70	40	4
A58 Rochdale Road, N/S Lane	75	17	15	68	16	13	84	29	20
A58 Rochdale Road, Middle Lane	74	20	18	72	20	18	86	34	24
A58 Rochdale Road, O/S Lane	67	11	7	71	13	7	74	17	8
A58 Rochdale Road, Circulating, N/S Lane	1	3	0	1	2	0	2	0	0
A58 Rochdale Road, Circulating, Middle Lane	82	31	9	76	24	10	79	32	10
A58 Rochdale Road, Circulating, O/S Lane	6	4	0	9	3	0	16	0	0
	A58 Rochdale Road/ B6621 Wash Lane								
A58 Rochdale Road Eastbound, N/S Lane	87	34	11	82	31	9	68	20	7
A58 Rochdale Road Eastbound, O/S Lane	69	21	7	72	23	7	67	18	7
B6221 Wash Lane, N/S Lane	64	17	7	52	13	5	66	19	7
B6221 Wash Lane, O/S Lane	59	14	6	48	12	5	61	16	6
A58 Rochdale Road Westbound, N/S Lane	46	1	0	48	2	0	51	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	38	1	0	40	1	0
A58 Rochdale Road Westbound, O/S Lane	72	22	8	66	17	7	85	21	8

Table TIA7.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0.15	7	0.2	0.50	14	1.0	0.73	30	2.6
Whittle Lane - Heywood Old Rd (S)	0.03	18	0.0	0.27	17	0.4	0.40	23	0.6
Heywood Old Road (N) - Whittle Lane	0.53	11	1.2	0.29	7	0.4	0.08	6	0.1
Avg. Jun. Delay (s/pcu)		3			4			7	

Table TIA7.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	87%	58	20.5	47%	25	7.3	38%	19	7.7
Langley Lane Right Left	87%	56	19.4	68%	47	6.9	81%	77	9.6
Heywood Old Road Ahead Right	55%	37	8.5	67%	25	10.6	81%	27	23.7
A6045 exit	23%	1	0.1	31%	1	0.2	43%	2	0.4
Total Delay Over All Lanes(pcuHr)		22			11			15	

Table TIA7.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.37	20	0.6	0.03	13	0.0	0.00	15	0.0
Langley Lane to A6046 (S)	0.61	47	1.5	0.50	29	1.0	0.55	41	1.2
A6046 (N) to Langley Lane	0.04	8	0.0	0.04	8	0.0	0.12	8	0.1
Avg. Jun. Delay (s/pcu)		4			2			2	

Table TIA7.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	62%	23	9.4	47%	18	5.8	51%	20	6.8
Coronation Road Right Left	95%	75	15.8	71%	36	5.8	89%	52	10.6
Manchester Road (S) Ahead Right	96%	65	20.8	70%	23	9.8	89%	39	16.2
Total Delay Over All Lanes(pcuHr)		25			8			15	

Table TIA7.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.78	13	3.3	0.68	9	2.1	0.86	21	5.9
Hollins Lane	0.87	56	5.4	0.65	25	1.8	0.66	28	1.8
Hollins Brow	0.99	74	18.6	0.73	14	2.7	0.68	11	2.1
Avg. Jun. Delay (s/pcu)		45			13			18	

Table TIA7.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	111%	265	48.5	92%	49	14.0	106%	171	35.6
Manchester Road (S) Ahead	87%	27	23.7	87%	30	14.8	100%	71	28.8
Manchester Road (S) Right	111%	295	17.9	90%	66	6.0	57%	29	2.2
Manchester Road (N) Left Ahead	111%	222	100.1	91%	35	14.7	106%	148	63.6
Total Delay Over All Lanes(pcuHr)		142			29			104	

Table TIA7.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	65%	20	6.7	58%	14	5.8	70%	19	10.6
A576 Middleton Road Right Ahead	88%	31	13.8	76%	18	10.4	87%	27	18.6
Kelvin Avenue Left Right Ahead	4%	15	0.2	4%	19	0.2	3%	22	0.2
Manchester Old Road Ahead Left Right	86%	27	7.0	77%	15	4.9	86%	22	10.5
Heywood Old Road Right Ahead Left	86%	38	9.9	73%	30	5.4	86%	46	10.3
Total Delay Over All Lanes(pcuHr)		20			12			22	

Individual Junction Assessments

Traffic Impact Assessment 8 – 2039 DS1 With M62 Access Solution (SATURN Model Run 12)

Table TIA8.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	57	17	5	35	13	3	64	20	5
M62 Westbound Offslip, O/S Lane	62	19	6	34	13	3	48	17	4
M62 Westbound Offslip, Circulating, N/S Lane	64	11	5	61	25	8	64	13	5
M62 Westbound Offslip, Circulating, O/S Lane	50	18	8	36	22	4	36	17	5
A6046 Middleton Road Northbound, N/S Lane	75	28	6	74	25	6	65	21	5
A6046 Middleton Road Northbound, O/S Lane	74	27	7	62	22	5	49	18	4
A6046 Middleton Road Northbound, Circulating, N/S Lane	75	19	11	44	9	5	55	11	7
A6046 Middleton Road Northbound, Circulating, O/S Lane	52	9	16	46	26	13	41	14	11
M62 Eastbound Offslip	25	1	1	30	1	2	36	1	2
Queen Elizabeth II Way, N/S Lane	67	28	5	41	19	3	38	17	3
Queen Elizabeth II Way, O/S Lane	56	24	4	36	18	3	37	16	3
Queen Elizabeth II Way, Circulating, N/S Lane	58	13	5	53	10	4	71	13	6
Queen Elizabeth II Way, Circulating, O/S Lane	16	17	3	23	5	1	18	4	1
A6046 Middleton Road Southbound, N/S Lane	75	24	8	74	23	7	53	12	5
A6046 Middleton Road Southbound, O/S Lane	55	17	5	38	14	3	28	8	3
A6046 Middleton Road Southbound, Circulating, N/S Lane	60	19	10	48	20	7	47	27	4
A6046 Middleton Road Southbound, Circulating, O/S Lane	51	16	9	48	14	8	69	26	9

Table TIA8.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	58%	32	6.2	54%	28	6.7	73%	37	10.9
Queen Elizabeth II Way (W) Ahead Right	57%	32	6.7	48%	44	3.0	46%	43	3.4
Queen Elizabeth II Way (E) Left Ahead	45%	31	3.5	35%	26	3.1	57%	36	6.0
Queen Elizabeth II Way (E) Right Ahead	44%	30	4.7	37%	28	2.9	55%	37	3.0
Manchester Road (N) Left Ahead Right	59%	24	5.6	55%	26	6.0	72%	31	9.7
Manchester Road (S) Ahead Right Left	59%	25	7.8	44%	28	5.0	52%	29	7.3
Total Delay Over All Lanes(pcuHr)		19			15			22	

Table TIA8.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	43%	14	8.3	46%	18	7.2	55%	20	8.6
Internal - Northbound Ahead	44%	2	0.5	29%	2	0.4	36%	2	0.5
Internal - Northbound Right	8%	6	0.6	6%	5	0.6	3%	6	0.0
Internal - Southbound Ahead	25%	2	0.5	26%	2	0.6	35%	3	1.1
Internal - Southbound Right	9%	11	0.2	4%	4	0.0	2%	4	0.0
Harehills Road South Left	11%	4	1.0	9%	5	0.8	4%	4	0.3
Harehills Road South Ahead	52%	13	10.4	31%	14	4.3	37%	15	5.1
Hill Top Road Left Right	53%	59	3.3	44%	39	2.9	49%	37	2.7
Unnamed Road Left	34%	57	1.9	43%	46	2.5	54%	45	3.5
Unnamed Road Right	19%	53	1.1	21%	40	1.2	18%	36	1.1
Total Delay Over All Lanes(pcuHr)		9			8			9	

Table TIA8.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	83%	36	12.7	69%	19	10.5	76%	20	13.8
Hareshill Road Right Ahead	76%	18	8.3	39%	9	3.1	64%	14	3.7
Pilsworth Road (n) Left Right	83%	29	11.0	69%	31	5.5	72%	35	6.0
Total Delay Over All Lanes(pcuHr)		15			8			11	

Table TIA8.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	74%	10	15.8	61%	11	11.7	65%	11	15.2
Pilsworth Road Right Left	146%	497	76.5	91%	69	12.8	99%	115	19.9
A58 Bridge Street (W) Ahead Right	146%	654	130.0	90%	45	18.8	98%	79	29.8
Total Delay Over All Lanes(pcuHr)		195			19			33	

Table TIA8.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.35	10	0.5	0.42	12	0.7	0.33	11	0.5
Heywood Dist. Park to Pilsworth Rd (W)	0.64	35	1.7	0.65	28	1.8	0.66	31	1.9
Heywood Distribution Park - RT	0.41	10	0.7	0.27	8	0.4	0.16	7	0.2
Avg. Jun. Delay (s/pcu)		5			6			5	

Table TIA8.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0.05	9	0.0	0.05	7	0.1	0.06	7	0.1
Plot 3 (SHEA) to Pilsworth Road (E)	0.07	21	0.1	0.07	13	0.1	0.07	15	0.1
Plot 3 (SHEA) RT	0.07	8	0.1	0.05	6	0.1	0.02	6	0.0
Avg. Jun. Delay (s/pcu)		0			0			0	

Table TIA8.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0.56	4	1.3	0.35	3	0.5	0.37	3	0.6
Moss Hall Road (S)	0.33	4	0.5	0.48	4	0.9	0.66	7	2.0
New Link Road	0.73	6	2.7	0.54	3	1.2	0.50	3	1.0
Moss Hall Road (NW)	0.03	6	0.0	0.05	5	0.0	0.03	5	0.0
Avg. Jun. Delay (s/pcu)		5			3			4	

Table TIA8.10: Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	0.53	3	1.1	0.55	3	1.2	0.70	5	2.3
Pilsworth Road	0.67	5	2.0	0.58	4	1.4	0.64	5	1.7
Moss Hall Road (N)	0.60	9	1.5	0.24	5	0.3	0.23	4	0.3
Avg. Jun. Delay (s/pcu)		5			4			5	

Table TIA8.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Bridge Hall Lane - Signalised T-Junction									
Bridge Hall Lane Westbound, N/S Lane	8	24	0	9	21	0	4	8	0
Bridge Hall Lane Westbound, O/S Lane	28	26	2	31	23	2	9	8	1
Bridge Hall Lane Northbound	18	2	1	19	5	2	12	16	2
M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction									
M66 Southbound Off-Slip, N/S Lane	17	4	4	17	5	4	25	16	4
M66 Southbound Off-Slip, Middle Lane	7	3	1	6	5	1	40	26	4
M66 Southbound Off-Slip, O/S Lane	15	3	4	11	5	4	27	16	4
Bridge Hall Lane Westbound, N/S Lane	9	5	0	9	0	0	5	0	0
Bridge Hall Lane Westbound, O/S Lane	30	7	0	27	2	0	13	3	2
M66 Junction 2 Interchange									
M66 Southbound Off-Slip, N/S Lane	59	22	3	65	26	5	56	18	5
M66 Southbound Off-Slip, Middle Lane	23	17	2	31	17	2	109	383	16
M66 Southbound Off-Slip, O/S Lane	60	21	4	50	20	3	56	17	5
M66 Southbound Off-Slip, Circulating, N/S Lane	68	9	13	60	7	15	67	11	15
M66 Southbound Off-Slip, Circulating, Middle Lane	55	4	5	53	4	5	61	7	12
M66 Southbound Off-Slip, Circulating, O/S Lane	55	3	3	50	4	3	89	34	16
A58 Bury New Road, N/S Lane	113	303	99	83	37	8	85	33	12
A58 Bury New Road, Middle Lane	39	21	3	55	23	4	52	18	4
A58 Bury New Road, O/S Lane	30	20	2	34	19	3	25	14	2
A58 Bury New Road, Circulating, N/S Lane	77	11	13	68	7	12	93	34	17
A58 Bury New Road, Circulating, Middle Lane	92	25	16	75	8	13	100	94	29
A58 Bury New Road, Circulating, O/S Lane	30	19	7	18	2	5	24	5	5
M66 Northbound Off-Slip, N/S Lane	124	625	211	94	53	14	120	535	167
M66 Northbound Off-Slip, Middle Lane	99	83	20	99	75	20	96	71	17
M66 Northbound Off-Slip, O/S Lane	33	16	4	39	16	4	53	20	5
M66 Northbound Off-Slip, Circulating, N/S Lane	96	62	14	94	47	10	101	144	35
M66 Northbound Off-Slip, Circulating, Middle Lane	100	83	19	92	40	14	98	75	17
M66 Northbound Off-Slip, Circulating, O/S Lane	39	17	4	38	4	0	33	13	2
Waterfold, N/S Lane	16	25	2	20	25	2	19	25	2
Waterfold, O/S Lane	28	26	2	40	28	2	75	45	4
A58 Rochdale Road, N/S Lane	71	18	17	66	16	14	82	29	20
A58 Rochdale Road, Middle Lane	71	19	20	69	19	18	85	33	23
A58 Rochdale Road, O/S Lane	63	12	7	68	12	7	73	17	8
A58 Rochdale Road, Circulating, N/S Lane	1	36	0	1	2	0	1	0	0
A58 Rochdale Road, Circulating, Middle Lane	80	30	9	72	23	9	81	34	11
A58 Rochdale Road, Circulating, O/S Lane	5	36	1	6	3	0	15	0	0
A58 Rochdale Road/ B6621 Wash Lane									
A58 Rochdale Road Eastbound, N/S Lane	85	32	10	82	31	9	70	21	7
A58 Rochdale Road Eastbound, O/S Lane	66	20	7	71	23	7	69	19	8
B6221 Wash Lane, N/S Lane	63	17	7	52	13	5	67	19	7
B6221 Wash Lane, O/S Lane	58	14	6	48	12	5	61	16	6
A58 Rochdale Road Westbound, N/S Lane	47	1	0	49	2	0	51	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	39	1	0	40	1	0
A58 Rochdale Road Westbound, O/S Lane	71	19	6	66	16	7	86	22	8

Table TIA8.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0.05	7	0.0	0.19	8	0.2	0.35	12	0.5
Whittle Lane - Heywood Old Rd (S)	0.02	16	0.0	0.03	12	0.0	0.08	17	0.1
Heywood Old Road (N) - Whittle Lane	0.30	8	0.4	0.11	6	0.1	0.09	7	0.1
Avg. Jun. Delay (s/pcu)		1			1			2	

Table TIA8.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	78%	50	15.8	42%	25	5.0	38%	21	6.5
Langley Lane Right Left	79%	44	15.6	63%	41	5.5	79%	64	8.6
Heywood Old Road Ahead Right	59%	38	10.2	62%	23	8.6	79%	28	17.1
A6045 exit	26%	1	0.2	28%	1	0.2	37%	2	0.3
Total Delay Over All Lanes(pcuHr)		18			9			14	

Table TIA8.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.20	14	0.2	0.03	12	0.0	0.03	13	0.0
Langley Lane to A6046 (S)	0.52	33	1.1	0.42	24	0.7	0.50	34	1.0
A6046 (N) to Langley Lane	0.02	7	0.0	0.04	7	0.0	0.11	8	0.1
Avg. Jun. Delay (s/pcu)		2			2			2	

Table TIA8.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	57%	20	8.0	47%	17	6.1	53%	19	7.2
Coronation Road Right Left	92%	63	11.2	71%	37	5.6	84%	47	8.1
Manchester Road (S) Ahead Right	91%	42	17.8	72%	23	10.9	87%	34	15.7
Total Delay Over All Lanes(pcuHr)		18			8			13	

Table TIA8.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.78	13	3.4	0.67	9	2.0	0.85	18	5.2
Hollins Lane	0.83	47	4.3	0.67	26	1.9	0.65	27	1.8
Hollins Brow	1.02	98	26.5	0.77	15	3.2	0.81	18	4.0
Avg. Jun. Delay (s/pcu)		54			14			19	

Table TIA8.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	114%	304	54.2	93%	53	14.3	104%	138	30.3
Manchester Road (S) Ahead	82%	23	21.2	85%	27	13.7	96%	50	23.5
Manchester Road (S) Right	106%	225	12.9	83%	48	4.6	54%	30	2.0
Manchester Road (N) Left Ahead	114%	269	121.3	92%	37	15.6	105%	136	59.3
Total Delay Over All Lanes(pcuHr)		161			29			86	

Table TIA8.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	63%	20	8.3	54%	13	5.9	72%	18	11.2
A576 Middleton Road Right Ahead	87%	32	16.8	69%	15	10.0	86%	23	18.3
Kelvin Avenue Left Right Ahead	4%	18	0.3	4%	22	0.2	3%	24	0.2
Manchester Old Road Ahead Left Right	86%	24	9.9	67%	15	6.4	86%	19	8.8
Heywood Old Road Right Ahead Left	87%	44	12.1	68%	31	4.9	85%	47	8.9
Total Delay Over All Lanes(pcuHr)		22			11			20	

Individual Junction Assessments

Traffic Impact Assessment 9 – 2039 Do Something 3 Without M62 Access Solution (SATURN Model Run 13)

Table TIA9.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	14	16	3	16	10	3	20	12	3
M62 Westbound Offslip, O/S Lane	173	1577	280	78	22	8	87	31	11
M62 Westbound Offslip, Circulating, N/S Lane	54	7	5	73	18	6	85	29	12
M62 Westbound Offslip, Circulating, O/S Lane	51	14	10	42	7	3	42	4	3
A6046 Middleton Road Northbound, N/S Lane	78	39	6	80	32	6	82	35	7
A6046 Middleton Road Northbound, O/S Lane	109	305	72	85	37	9	91	50	12
A6046 Middleton Road Northbound, Circulating, N/S Lane	35	4	4	38	1	0	51	29	16
A6046 Middleton Road Northbound, Circulating, O/S Lane	99	67	38	93	50	24	96	48	30
M62 Eastbound Offslip, N/S Lane	44	22	3	60	28	4	96	96	10
M62 Eastbound Offslip, O/S Lane	23	19	3	30	21	3	70	38	4
M62 Eastbound Offslip, Circulating, N/S Lane	48	12	5	49	9	7	42	2	3
M62 Eastbound Offslip, Circulating, O/S Lane	81	25	14	54	10	5	93	36	12
Queen Elizabeth II Way, N/S Lane	122	717	119	49	19	4	64	27	5
Queen Elizabeth II Way, O/S Lane	97	155	20	78	28	8	92	53	11
Queen Elizabeth II Way, Circulating, N/S Lane	88	26	9	72	13	6	90	24	10
Queen Elizabeth II Way, Circulating, O/S Lane	18	4	3	23	4	3	28	5	3
A6046 Middleton Road Southbound, N/S Lane	86	36	9	71	21	6	87	37	10
A6046 Middleton Road Southbound, O/S Lane	75	26	8	37	13	3	50	19	4
A6046 Middleton Road Southbound, Circulating, N/S Lane	84	36	14	53	10	4	70	26	11
A6046 Middleton Road Southbound, Circulating, O/S Lane	61	28	11	83	16	9	81	28	13

Table TIA9.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	58%	32	6.8	15%	21	0.8	49%	32	4.3
Queen Elizabeth II Way (W) Ahead Right	65%	34	9.2	57%	26	7.2	63%	33	7.9
Queen Elizabeth II Way (E) Left Ahead	42%	30	4.1	13%	22	1.1	26%	31	2.3
Queen Elizabeth II Way (E) Right Ahead	46%	31	5.8	44%	25	5.1	43%	32	5
Manchester Road (N) Left Ahead Right	56%	25	5.3	59%	26	5.1	63%	26	9.3
Manchester Road (S) Ahead Right Left	66%	29	9.6	50%	28	5	46%	24	6
Total Delay Over All Lanes(pcuHr)		21			13			18	

Table TIA9.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	50%	15	10.6	57%	20	10.8	61%	21	12
Internal - Northbound Ahead	67%	4	1.1	48%	3	0.6	49%	3	0.7
Internal - Northbound Right	9%	8	0.6	7%	9	0.6	3%	10	0
Internal - Southbound Ahead	31%	2	0.6	36%	3	1.1	41%	3	1.2
Internal - Southbound Right	14%	41	0.7	5%	13	0	2%	10	0
Harehills Road South Left	11%	4	1	8%	5	0.8	4%	4	0.4
Harehills Road South Ahead	81%	21	23.8	61%	18	11.9	55%	17	10.2
Hill Top Road Left Right	53%	60	3.3	46%	41	2.8	49%	42	3.1
Unnamed Road Left	26%	56	1.5	26%	44	1.6	55%	51	3.8
Unnamed Road Right	26%	55	1.6	32%	44	2.2	22%	42	1.5
Total Delay Over All Lanes(pcuHr)		15			12			12	

Table TIA9.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	90%	41	15	76%	22	15.5	76%	21	17.7
Hareshill Road Right Ahead	91%	28	18.5	54%	12	8	77%	14	6.6
Pilsworth Road (n) Left Right	91%	42	13.2	75%	38	8.1	77%	45	7.9
Total Delay Over All Lanes(pcuHr)		25			12			13	

Table TIA9.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	75%	10	17.9	61%	11	12.3	67%	11	13.1
Pilsworth Road Left	154%	698	115.5	105%	179	28.8	108%	206	32.2
A58 Bridge Street (W) Ahead Right	156%	754	156	105%	157	44.4	109%	207	50.8
Total Delay Over All Lanes(pcuHr)		260			57			71	

Table TIA9.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.38	19	0.9	0.48	22	1.3	0.37	19	0.9
Heywood Dist. Park to Pilsworth Rd (W)	0.98	207	10.2	0.89	123	7.5	0.8	86	5
Heywood Distribution Park - RT	0.62	18	1.9	0.51	14	1.2	0.3	10	0.5
Avg. Jun. Delay (s/pcu)		18			17			12	

Table TIA9.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0.06	16	0.1	0.06	12	0.1	0.07	12	0.1
Plot 3 (SHEA) to Pilsworth Road (E)	0.12	49	0.2	0.08	24	0.1	0.08	25	0.1
Plot 3 (SHEA) RT	0.08	13	0.1	0.06	9	0.1	0.03	9	0
Avg. Jun. Delay (s/pcu)		1			1			1	

Table TIA9.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0.77	9	3.3	0.47	3	0.9	0.42	3	0.7
Moss Hall Road (S)	0.53	5	1.1	0.82	12	4.4	1.01	69	30
New Link Road	0.76	7	3.2	0.52	3	1.1	0.38	3	0.6
Moss Hall Road (NW)	0.04	7	0.00	0.05	5	0.1	0.02	4	0.0
Avg. Jun. Delay (s/pcu)		7			7			33	

Table TIA9.10: Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	0.52	3	1.1	0.67	5	2.0	0.85	11	5.6
Pilsworth Road	0.66	5	1.9	0.56	4	1.2	0.53	4	1.1
Moss Hall Road (N)	0.56	9	1.3	0.20	4	0.2	0.16	4	0.2
Avg. Jun. Delay (s/pcu)		5			5			8	

Table TIA9.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
	Bridge Hall Lane - Signalised T-Junction								
Bridge Hall Lane Westbound, N/S Lane	7	22	0	9	21	0	7	14	1
Bridge Hall Lane Westbound, O/S Lane	23	23	1	31	23	2	13	14	1
Bridge Hall Lane Northbound	18	3	2	19	5	2	8	3	0
	M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction								
M66 Southbound Off-Slip, N/S Lane	19	4	4	17	5	4	14	3	4
M66 Southbound Off-Slip, Middle Lane	7	4	4	6	5	1	8	3	4
M66 Southbound Off-Slip, O/S Lane	17	4	4	11	5	4	14	3	4
Bridge Hall Lane Westbound, N/S Lane	7	0	0	9	0	0	19	15	0
Bridge Hall Lane Westbound, O/S Lane	24	2	0	28	2	0	36	17	1
	M66 Junction 2 Interchange								
M66 Southbound Off-Slip, N/S Lane	79	38	4	64	25	5	51	20	3
M66 Southbound Off-Slip, Middle Lane	30	20	2	31	17	2	35	16	2
M66 Southbound Off-Slip, O/S Lane	79	35	5	50	20	3	55	21	3
M66 Southbound Off-Slip, Circulating, N/S Lane	68	6	8	60	7	17	65	10	17
M66 Southbound Off-Slip, Circulating, Middle Lane	56	7	5	57	5	5	63	4	5
M66 Southbound Off-Slip, Circulating, O/S Lane	55	6	4	52	4	3	56	2	3
A58 Bury New Road, N/S Lane	131	646	185	87	42	9	114	389	107
A58 Bury New Road, Middle Lane	33	22	3	55	23	4	62	32	5
A58 Bury New Road, O/S Lane	21	20	2	34	19	3	28	26	2
A58 Bury New Road, Circulating, N/S Lane	83	19	14	73	10	13	80	9	13
A58 Bury New Road, Circulating, Middle Lane	95	38	19	78	9	13	84	14	14
A58 Bury New Road, Circulating, O/S Lane	29	1	5	18	2	5	21	18	5
M66 Northbound Off-Slip, N/S Lane	126	625	200	93	51	14	115	462	151
M66 Northbound Off-Slip, Middle Lane	98	83	19	98	69	18	96	67	17
M66 Northbound Off-Slip, O/S Lane	51	20	4	48	18	4	50	19	4
M66 Northbound Off-Slip, Circulating, N/S Lane	87	41	9	94	46	10	95	56	11
M66 Northbound Off-Slip, Circulating, Middle Lane	87	35	12	92	39	14	100	94	21
M66 Northbound Off-Slip, Circulating, O/S Lane	25	13	2	38	4	0	30	5	3
Waterfold, N/S Lane	15	24	2	20	25	2	19	25	2
Waterfold, O/S Lane	30	26	2	40	28	2	70	40	4
A58 Rochdale Road, N/S Lane	94	40	23	68	16	13	71	17	15
A58 Rochdale Road, Middle Lane	93	45	28	72	20	18	75	20	19
A58 Rochdale Road, O/S Lane	72	15	8	71	13	7	69	11	7
A58 Rochdale Road, Circulating, N/S Lane	0	7	0	1	2	0	2	1	0
A58 Rochdale Road, Circulating, Middle Lane	76	22	9	76	24	10	85	32	11
A58 Rochdale Road, Circulating, O/S Lane	6	7	0	9	3	0	17	2	0
	A58 Rochdale Road/ B6621 Wash Lane								
A58 Rochdale Road Eastbound, N/S Lane	74	21	9	82	31	9	82	31	9
A58 Rochdale Road Eastbound, O/S Lane	59	15	6	72	23	7	81	28	9
B6221 Wash Lane, N/S Lane	75	24	9	52	13	5	58	14	6
B6221 Wash Lane, O/S Lane	69	20	7	48	12	5	53	12	6
A58 Rochdale Road Westbound, N/S Lane	45	1	0	48	2	0	50	2	0
A58 Rochdale Road Westbound, Middle Lane	37	1	0	38	1	0	39	1	0
A58 Rochdale Road Westbound, O/S Lane	84	31	9	66	17	7	70	18	7

Table TIA9.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0.1	8	0.1	0.51	15	1.1	0.74	32	2.9
Whittle Lane - Heywood Old Rd (S)	0.04	20	0	0.29	20	0.4	0.34	23	0.6
Heywood Old Road (N) - Whittle Lane	0.57	13	1.5	0.3	8	0.5	0.08	7	0.1
Avg. Jun. Delay (s/pcu)		4			5			8	

Table TIA9.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	73%	44	12.1	38%	25	6	49%	30	8.8
Langley Lane Right Left	73%	39	12.1	60%	43	7	83%	61	12.4
Heywood Old Road Ahead	63%	36	10	60%	25	9.6	83%	37	19.9
Heywood Old Road Right	28%	1	0.2	27%	1	0.2	38%	2	0.3
Total Delay Over All Lanes(pcuHr)		15			10			19	

Table TIA9.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.53	46	1.1	0.02	15	0	0.01	18	0
Langley Lane to A6046 (S)	0.79	93	3.3	0.5	33	1.1	0.58	52	1.4
A6046 (N) to Langley Lane	0.16	10	0.2	0.04	9	0	0.13	10	0.2
Avg. Jun. Delay (s/pcu)		8			2			3	

Table TIA9.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	63%	23	9.6	50%	19	6.1	50%	20	6.4
Coronation Road Right Left	99%	100	18.7	78%	38	7.5	88%	50	10.2
Manchester Road (S) Ahead Right	100%	91	27.0	79%	29	11.7	88%	38	15.7
Total Delay Over All Lanes(pcuHr)		34			11			15	

Table TIA9.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.78	13	3.5	0.68	9	2.1	0.87	21	6
Hollins Lane	0.88	58	5.7	0.65	25	1.8	0.66	28	1.8
Hollins Brow	1	78	19.9	0.74	14	2.7	0.67	11	2
Avg. Jun. Delay (s/pcu)		47			13			18	

Table TIA9.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	100%	103	22.5	92%	50	14.1	110%	241	51.9
Manchester Road (S) Ahead	99%	65	32.1	87%	30	15	86%	29	23.8
Manchester Road (S) Right	89%	73	5.6	90%	67	6.1	94%	119	6.5
Manchester Road (N) Left Ahead	100%	70	32.6	92%	36	15.1	111%	225	106.4
Total Delay Over All Lanes(pcuHr)		62			30			138	

Table TIA9.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	57%	19	6	63%	18	8.7	93%	36	19.2
A576 Middleton Road Right Ahead	92%	41	16.8	76%	21	12.9	85%	24	16
Kelvin Avenue Left Right Ahead	4%	16	0.2	3%	22	0.2	4%	23	0.2
A576 Manchester Old Road Ahead Left	90%	23	7.1	75%	37	9.3	90%	37	6.4
A576 Manchester Old Road Ahead Right	91%	47	13.1	77%	34	7.8	92%	56	11.5
Total Delay Over All Lanes(pcuHr)		23			16			26	

Individual Junction Assessments

Traffic Impact Assessment 10 – 2039 Do Something 3 With M62 Access Solution (SATURN Model Run 14)

Table TIA10.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	69	22	6	47	19	3	73	27	6
M62 Westbound Offslip, O/S Lane	68	22	7	44	18	3	61	23	5
M62 Westbound Offslip, Circulating, N/S Lane	70	15	7	50	16	7	57	17	10
M62 Westbound Offslip, Circulating, O/S Lane	44	6	3	30	21	5	34	22	6
A6046 Middleton Road Northbound, N/S Lane	82	34	7	60	17	5	68	21	6
A6046 Middleton Road Northbound, O/S Lane	79	32	9	51	16	4	45	16	4
A6046 Middleton Road Northbound, Circulating, N/S Lane	77	16	23	53	12	9	63	9	7
A6046 Middleton Road Northbound, Circulating, O/S Lane	81	25	14	56	36	16	44	12	13
M62 Eastbound Offslip	28	2	2	30	1	2	38	2	2
Queen Elizabeth II Way, N/S Lane	61	21	5	38	17	3	43	19	3
Queen Elizabeth II Way, O/S Lane	37	16	3	33	16	3	42	18	3
Queen Elizabeth II Way, Circulating, N/S Lane	68	10	4	57	12	4	86	26	8
Queen Elizabeth II Way, Circulating, O/S Lane	17	2	0	24	5	1	17	11	2
A6046 Middleton Road Southbound, N/S Lane	66	17	7	68	19	6	80	29	8
A6046 Middleton Road Southbound, O/S Lane	43	11	4	35	13	3	47	18	4
A6046 Middleton Road Southbound, Circulating, N/S Lane	61	10	4	40	21	4	60	16	10
A6046 Middleton Road Southbound, Circulating, O/S Lane	59	13	4	52	15	8	44	9	8

Table TIA10.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	58%	34	7.2	9%	26	0.9	76%	37	11.3
Queen Elizabeth II Way (W) Ahead Right	57%	34	7.8	50%	30	6.4	47%	40	3.3
Queen Elizabeth II Way (E) Left Ahead	42%	33	3.7	18%	28	1.7	50%	33	4.7
Queen Elizabeth II Way (E) Right Ahead	42%	33	5	49%	31	5.9	53%	32	3.3
Manchester Road (N) Left Ahead Right	57%	25	7.5	50%	24	5.8	75%	31	9.4
Manchester Road (S) Ahead Right Left	57%	26	8.1	41%	25	4.9	52%	29	6.8
Total Delay Over All Lanes(pcuHr)		20			14			21	

Table TIA10.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	51%	17.5	8.4	71%	27.8	7.8	58%	20.5	8.6
Internal - Northbound Ahead	51%	2.6	0.6	33%	2.7	0.4	37%	3.2	0.8
Internal - Northbound Right	8%	6.8	0.6	6%	6.1	0	3%	6.5	0
Internal - Southbound Ahead	27%	2.3	0.5	30%	2.9	0.6	36%	3.2	1.1
Internal - Southbound Right	10%	14.6	0.6	4%	4	0	2%	4.4	0
Harehills Road South Left	11%	4.5	1	9%	5.6	0.7	4%	4.6	0.3
Harehills Road South Ahead	64%	17.5	11.5	43%	17.8	4.3	39%	14.9	5
Hill Top Road Left Right	42%	41.1	2.4	38%	26.5	2	46%	33.2	2.4
Unnamed Road Left	27%	41.7	1.5	33%	29.6	1.8	56%	43.9	3.4
Unnamed Road Right	15%	39	0.8	14%	26.5	0.7	19%	34.8	1.1
Total Delay Over All Lanes(pcuHr)		10			9			9	

Table TIA10.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	81%	37	14.9	68%	19	11.2	75%	20	13.8
Hareshill Road Right Ahead	81%	23	11.1	39%	9	3.3	62%	12	3.6
Pilsworth Road (n) Left Right	81%	30	13.2	66%	31	5.7	74%	37	6.3
Total Delay Over All Lanes(pcuHr)		17			8			11	

Table TIA10.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	74%	11	17.4	60%	11	11.9	66%	11	15
Pilsworth Road Right Left	137%	523	82.4	93%	76	14.1	99%	119	20
A58 Bridge Street (W) Ahead Right	139%	594	114.3	92%	48	21.1	100%	100	33.4
Total Delay Over All Lanes(pcuHr)		185			21			38	

Table TIA10.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.35	16	0.8	0.43	18	1.1	0.33	17	0.7
Heywood Dist. Park to Pilsworth Rd (W)	0.67	57	2.7	0.65	42	2.6	0.68	48	2.9
Heywood Distribution Park - RT	0.42	12	0.9	0.27	10	0.4	0.17	9	0.2
Avg. Jun. Delay (s/pcu)		7			8			8	

Table TIA10.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0.05	13	0.1	0.05	11	0.1	0.06	11	0.1
Plot 3 (SHEA) to Pilsworth Road (E)	0.08	31	0.1	0.07	19	0.1	0.07	21	0.1
Plot 3 (SHEA) RT	0.07	10	0.1	0.05	8	0.1	0.03	8	0
Avg. Jun. Delay (s/pcu)		1			1			1	

Table TIA10.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0.59	5	1.4	0.35	3	0.5	0.38	3	0.6
Moss Hall Road (S)	0.35	4	0.5	0.49	4	0.9	0.68	7	2.1
New Link Road	0.75	6	2.9	0.54	3	1.2	0.50	3	1.0
Moss Hall Road (NW)	0.03	7	0.00	0.04	5	0	0.03	5	0.0
Avg. Jun. Delay (s/pcu)		5			4			4	

Table TIA10.10: Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	0.55	4	1.2	0.55	4	1.2	0.71	5	2.4
Pilsworth Road	0.68	5	2.2	0.59	4	1.4	0.64	5	1.7
Moss Hall Road (N)	0.61	10	1.6	0.25	5	0.3	0.23	4	0.3
Avg. Jun. Delay (s/pcu)		5			4			5	

Table TIA10.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
	Bridge Hall Lane - Signalised T-Junction								
Bridge Hall Lane Westbound, N/S Lane	7	22	0	9	21	0	7	14	0
Bridge Hall Lane Westbound, O/S Lane	23	23	1	31	23	2	13	14	1
Bridge Hall Lane Northbound	19	3	2	19	5	2	8	4	0
	M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction								
M66 Southbound Off-Slip, N/S Lane	14	4	4	17	5	4	14	3	4
M66 Southbound Off-Slip, Middle Lane	7	4	4	6	5	1	8	3	4
M66 Southbound Off-Slip, O/S Lane	16	4	4	11	5	4	13	3	4
Bridge Hall Lane Westbound, N/S Lane	8	1	0	9	0	0	18	15	0
Bridge Hall Lane Westbound, O/S Lane	24	2	0	27	2	0	36	17	1
	M66 Junction 2 Interchange								
M66 Southbound Off-Slip, N/S Lane	60	27	3	64	26	5	51	20	3
M66 Southbound Off-Slip, Middle Lane	29	20	2	31	17	2	34	16	2
M66 Southbound Off-Slip, O/S Lane	77	33	5	50	20	3	54	20	3
M66 Southbound Off-Slip, Circulating, N/S Lane	64	7	9	61	7	17	69	11	17
M66 Southbound Off-Slip, Circulating, Middle Lane	51	6	5	53	4	5	63	3	5
M66 Southbound Off-Slip, Circulating, O/S Lane	51	5	3	51	4	3	56	2	3
A58 Bury New Road, N/S Lane	116	345	112	84	37	8	116	377	105
A58 Bury New Road, Middle Lane	33	19	3	55	23	4	100	147	16
A58 Bury New Road, O/S Lane	27	18	2	34	19	3	28	25	2
A58 Bury New Road, Circulating, N/S Lane	80	19	13	68	7	12	79	9	13
A58 Bury New Road, Circulating, Middle Lane	95	40	19	76	8	13	83	13	14
A58 Bury New Road, Circulating, O/S Lane	31	1	5	18	2	5	30	27	5
M66 Northbound Off-Slip, N/S Lane	124	608	205	94	52	14	113	408	133
M66 Northbound Off-Slip, Middle Lane	99	84	21	99	74	19	96	67	17
M66 Northbound Off-Slip, O/S Lane	35	17	4	42	17	4	53	19	5
M66 Northbound Off-Slip, Circulating, N/S Lane	99	90	17	94	48	10	95	56	12
M66 Northbound Off-Slip, Circulating, Middle Lane	95	58	15	92	40	14	100	143	30
M66 Northbound Off-Slip, Circulating, O/S Lane	38	15	2	39	4	0	31	4	3
Waterfold, N/S Lane	16	25	2	20	25	2	19	25	2
Waterfold, O/S Lane	28	26	2	40	28	2	69	39	4
A58 Rochdale Road, N/S Lane	85	31	21	66	16	14	71	18	16
A58 Rochdale Road, Middle Lane	83	32	23	70	19	18	74	19	19
A58 Rochdale Road, O/S Lane	71	17	8	69	12	7	69	11	7
A58 Rochdale Road, Circulating, N/S Lane	0	4	0	1	2	0	2	1	0
A58 Rochdale Road, Circulating, Middle Lane	66	20	8	75	24	9	88	36	12
A58 Rochdale Road, Circulating, O/S Lane	4	4	0	6	3	0	17	2	0
	A58 Rochdale Road/ B6621 Wash Lane								
A58 Rochdale Road Eastbound, N/S Lane	73	20	8	82	31	9	83	32	10
A58 Rochdale Road Eastbound, O/S Lane	56	15	6	71	23	7	83	30	10
B6221 Wash Lane, N/S Lane	73	23	8	52	13	5	58	14	6
B6221 Wash Lane, O/S Lane	68	19	7	48	12	5	54	12	6
A58 Rochdale Road Westbound, N/S Lane	48	1	0	49	2	0	50	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	39	1	0	39	1	0
A58 Rochdale Road Westbound, O/S Lane	85	33	10	66	16	7	71	18	7

Table TIA10.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0.02	7	0	0.18	9	0.2	0.39	14	0.7
Whittle Lane - Heywood Old Rd (S)	0.04	17	0	0.05	14	0.1	0.17	21	0.2
Heywood Old Road (N) - Whittle Lane	0.27	9	0.4	0.11	7	0.1	0.08	7	0.1
Avg. Jun. Delay (s/pcu)		1			1			2	

Table TIA10.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	73%	44	12.1	38%	25	6	49%	30	8.8
Langley Lane Right Left	73%	39	12.1	60%	43	7	83%	61	12.4
Heywood Old Road Ahead Right	63%	36	10	60%	25	9.6	83%	37	19.9
A6045 exit	28%	1	0.2	27%	1	0.2	38%	2	0.3
Total Delay Over All Lanes(pcuHr)		15			10			19	

Table TIA10.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.01	15	0	0.03	14	0	0.02	16	0
Langley Lane to A6046 (S)	0.52	36	1.2	0.46	28	0.9	0.55	43	1.3
A6046 (N) to Langley Lane	0.02	8	0	0.04	8	0	0.12	9	0.2
Avg. Jun. Delay (s/pcu)		2			2			2	

Table TIA10.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	61%	21.7	9.5	51%	17.7	6.1	51%	18.1	6.8
Coronation Road Right Left	96%	83.9	15.5	73%	37.6	5.3	86%	50.5	8.3
Manchester Road (S) Ahead Right	96%	66.7	21.8	75%	24.5	10.2	86%	32.1	15.2
Total Delay Over All Lanes(pcuHr)		26			9			13	

Table TIA10.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.78	13	3.4	0.68	9	2.1	0.85	19	5.2
Hollins Lane	0.84	49	4.5	0.67	26	1.9	0.66	28	1.9
Hollins Brow	1.02	100	27.4	0.77	16	3.2	0.79	17	3.7
Avg. Jun. Delay (s/pcu)		55			14			19	

Table TIA10.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	107%	192	34.9	93%	55	14.9	107%	182	36.8
Manchester Road (S) Ahead	93%	37	21.7	83%	26	13.6	98%	60	24.8
Manchester Road (S) Right	73%	40	3.1	87%	60	5.4	49%	25	1.7
Manchester Road (N) Left Ahead	105%	129	59	93%	39	16.3	105%	115	50.2
Total Delay Over All Lanes(pcuHr)		88			30			88	

Table TIA10.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	56%	18	6	63%	16	7.6	92%	33	19.4
A576 Middleton Road Right Ahead	95%	47	19.5	76%	19	11.5	83%	21	16.2
Kelvin Avenue Left Right Ahead	4%	16	0.2	4%	22	0.2	4%	24	0.2
Manchester Old Road Ahead Left Right	94%	43	10.7	75%	35	8.1	89%	37	4.6
Heywood Old Road Right Ahead Left	94%	58	15	76%	33	6.4	91%	57	10.7
Total Delay Over All Lanes(pcuHr)		32			15			24	

Individual Junction Assessments

Traffic Impact Assessment 11 – 2039 Whittle Lane Sensitivity Modelling Report (SATURN Model Run 17)

Table TIA11.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	16	12	3	18	12	3	21	13	3
M62 Westbound Offslip, O/S Lane	137	871	197	87	30	10	92	42	14
M62 Westbound Offslip, Circulating, N/S Lane	72	19	8	70	16	6	81	27	11
M62 Westbound Offslip, Circulating, O/S Lane	66	9	10	38	18	5	38	3	1
A6046 Middleton Road Northbound, N/S Lane	93	87	9	90	46	9	82	34	7
A6046 Middleton Road Northbound, O/S Lane	152	1120	200	81	33	9	83	35	10
A6046 Middleton Road Northbound, Circulating, N/S Lane	39	6	8	36	6	1	44	22	1
A6046 Middleton Road Northbound, Circulating, O/S Lane	100	112	57	92	27	18	99	68	35
M62 Eastbound Offslip, N/S Lane	37	20	3	68	33	4	83	47	6
M62 Eastbound Offslip, O/S Lane	24	18	3	33	23	3	56	29	4
M62 Eastbound Offslip, Circulating, N/S Lane	58	16	10	52	8	7	46	2	3
M62 Eastbound Offslip, Circulating, O/S Lane	101	121	22	64	7	4	56	4	3
Queen Elizabeth II Way, N/S Lane	83	37	8	43	18	3	98	94	13
Queen Elizabeth II Way, O/S Lane	81	33	8	75	25	7	98	90	14
Queen Elizabeth II Way, Circulating, N/S Lane	64	17	7	75	14	7	84	15	7
Queen Elizabeth II Way, Circulating, O/S Lane	18	7	3	22	2	3	25	1	0
A6046 Middleton Road Southbound, N/S Lane	93	56	12	71	21	6	90	44	11
A6046 Middleton Road Southbound, O/S Lane	88	39	10	36	13	3	51	20	4
A6046 Middleton Road Southbound, Circulating, N/S Lane	70	17	11	52	9	4	82	19	12
A6046 Middleton Road Southbound, Circulating, O/S Lane	62	15	10	83	16	9	71	20	11

Table TIA11.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	79%	40	16.3	23%	18	2.3	61%	33	7.8
Queen Elizabeth II Way (W) Ahead Right	86%	45	19.2	76%	30	15.4	71%	35	11.4
Queen Elizabeth II Way (E) Left Ahead	43%	29	6.5	18%	18	1.7	55%	31	7.2
Queen Elizabeth II Way (E) Right Ahead	45%	31	7.4	59%	26	10.2	61%	34	8.7
Manchester Road (N) Left Ahead Right	86%	46	12.4	77%	38	8.3	68%	30	9.4
Manchester Road (S) Ahead Right Left	63%	35	10.3	58%	39	5.7	49%	29	6.7
Total Delay Over All Lanes(pcuHr)		35			22			26	

Table TIA11.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	48%	14	10.4	65%	22	13.4	78%	27	18.3
Internal - Northbound Ahead	71%	4	1.3	59%	3	0.8	54%	3	0.8
Internal - Northbound Right	9%	8	0.6	7%	12	0.6	4%	16	0
Internal - Southbound Ahead	30%	2	0.6	42%	3	1.3	53%	3	1.5
Internal - Southbound Right	17%	53	0.2	6%	21	0.1	2%	12	0
Harehills Road South Left	11%	4	1	8%	5	0.8	4%	4	0.4
Harehills Road South Ahead	87%	24	29.9	77%	23	17.6	61%	19	11.8
Hill Top Road Left Right	56%	65	3.5	46%	40	2.8	48%	41	3.1
Unnamed Road Left	19%	58	1	24%	44	1.5	58%	52	4.1
Unnamed Road Right	36%	61	2.2	34%	44	2.3	20%	42	1.3
Total Delay Over All Lanes(pcuHr)		17			15			15	

Table TIA11.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	81%	29	13	82%	25	18.3	87%	28	26.4
Hareshill Road Right Ahead	98%	51	32.9	67%	14	11.6	87%	21	8.5
Pilsworth Road (n) Left Right	98%	73	20.2	80%	42	9.1	87%	60	10.2
Total Delay Over All Lanes(pcuHr)		37			15			20	

Table TIA11.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	77%	11	20.1	61%	11	13.3	65%	11	15.5
Pilsworth Road Right Left	167%	848	148.2	105%	180	28.6	105%	181	29.9
A58 Bridge Street (W) Ahead Right	167%	852	153.6	106%	169	50.3	106%	166	47.3
Total Delay Over All Lanes(pcuHr)		292			60			60	

Table TIA11.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.39	19	0.9	0.49	24	1.4	0.4	22	1
Heywood Dist. Park to Pilsworth Rd (W)	1.08	293	14.8	1.08	276	18.1	0.99	192	12
Heywood Distribution Park - RT	0.62	18	1.9	0.56	16	1.5	0.32	11	0.6
Avg. Jun. Delay (s/pcu)		23			31			22	

Table TIA11.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0.07	18	0.1	0.07	13	0.1	0.07	13	0.1
Plot 3 (SHEA) to Pilsworth Road (E)	0.18	81	0.3	0.11	32	0.2	0.1	32	0.2
Plot 3 (SHEA) RT	0.09	14	0.1	0.05	10	0.1	0.03	9	0
Avg. Jun. Delay (s/pcu)		1			1			1	

Table TIA11.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0.93	28	11.1	0.56	4	1.3	0.45	3	0.8
Moss Hall Road (S)	0.53	4	1.1	1.01	70	33.2	1.31	578	259.3
New Link Road	0.86	12	6.0	0.54	4	1.2	0.37	3	0.6
Moss Hall Road (NW)	0.05	9	0.1	0.05	6	0.1	0.03	4	0.0
Avg. Jun. Delay (s/pcu)		16			32			302	

Table TIA11.10: Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	0.44	3	0.8	0.76	6	3.1	0.95	26	14.8
Pilsworth Road	0.73	6	2.7	0.57	4	1.3	0.5	4	1.0
Moss Hall Road (N)	0.63	11	1.7	0.2	4	0.2	0.15	4	0.2
Avg. Jun. Delay (s/pcu)		6			6			19	

Table TIA11.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
	Bridge Hall Lane - Signalised T-Junction								
Bridge Hall Lane Westbound, N/S Lane	8	24	0	9	21	0	7	14	1
Bridge Hall Lane Westbound, O/S Lane	29	26	2	31	23	2	13	14	1
Bridge Hall Lane Northbound	17	1	2	19	2	2	8	4	2
	M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction								
M66 Southbound Off-Slip, N/S Lane	13	3	4	16	5	4	14	3	4
M66 Southbound Off-Slip, Middle Lane	7	3	1	6	4	0	8	3	4
M66 Southbound Off-Slip, O/S Lane	16	3	4	10	4	4	14	3	4
Bridge Hall Lane Westbound, N/S Lane	9	31	0	10	6	0	19	11	2
Bridge Hall Lane Westbound, O/S Lane	30	34	2	33	8	0	36	14	3
	M66 Junction 2 Interchange								
M66 Southbound Off-Slip, N/S Lane	35	17	2	54	21	3	52	25	3
M66 Southbound Off-Slip, Middle Lane	20	15	2	26	12	2	35	20	2
M66 Southbound Off-Slip, O/S Lane	54	19	4	43	15	2	55	26	4
M66 Southbound Off-Slip, Circulating, N/S Lane	71	10	17	64	14	15	65	8	19
M66 Southbound Off-Slip, Circulating, Middle Lane	65	7	5	61	4	10	64	6	5
M66 Southbound Off-Slip, Circulating, O/S Lane	63	6	3	55	2	0	56	5	3
A58 Bury New Road, N/S Lane	134	691	201	87	42	9	114	376	103
A58 Bury New Road, Middle Lane	30	20	2	55	22	4	64	32	5
A58 Bury New Road, O/S Lane	19	19	2	34	19	3	28	26	2
A58 Bury New Road, Circulating, N/S Lane	86	20	15	74	8	13	81	10	13
A58 Bury New Road, Circulating, Middle Lane	98	50	23	78	9	11	86	16	14
A58 Bury New Road, Circulating, O/S Lane	30	22	7	18	11	4	21	18	5
M66 Northbound Off-Slip, N/S Lane	115	477	168	89	39	12	114	453	149
M66 Northbound Off-Slip, Middle Lane	99	84	22	93	45	14	96	67	17
M66 Northbound Off-Slip, O/S Lane	40	17	4	49	17	4	52	19	5
M66 Northbound Off-Slip, Circulating, N/S Lane	97	78	14	100	88	18	96	57	14
M66 Northbound Off-Slip, Circulating, Middle Lane	96	70	16	98	69	14	101	126	30
M66 Northbound Off-Slip, Circulating, O/S Lane	28	14	2	40	13	3	31	12	3
Waterfold, N/S Lane	15	24	2	20	25	2	19	25	2
Waterfold, O/S Lane	30	26	2	40	28	2	70	40	4
A58 Rochdale Road, N/S Lane	71	17	14	70	17	13	75	21	16
A58 Rochdale Road, Middle Lane	76	22	21	69	20	15	80	25	22
A58 Rochdale Road, O/S Lane	68	13	7	69	13	7	73	14	8
A58 Rochdale Road, Circulating, N/S Lane	0	0	0	1	33	0	2	4	0
A58 Rochdale Road, Circulating, Middle Lane	70	29	8	81	24	10	82	28	10
A58 Rochdale Road, Circulating, O/S Lane	9	4	0	12	21	2	17	5	0
	A58 Rochdale Road/ B6621 Wash Lane								
A58 Rochdale Road Eastbound, N/S Lane	79	27	9	75	24	8	78	27	9
A58 Rochdale Road Eastbound, O/S Lane	76	23	8	65	20	7	77	25	9
B6221 Wash Lane, N/S Lane	64	17	7	56	15	6	60	16	6
B6221 Wash Lane, O/S Lane	59	14	6	52	13	5	56	13	6
A58 Rochdale Road Westbound, N/S Lane	47	1	0	48	2	0	50	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	38	1	0	39	1	0
A58 Rochdale Road Westbound, O/S Lane	71	19	7	72	14	6	74	19	7

Table TIA11.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0	0	0	0	0	0	0	0	0
Whittle Lane - Heywood Old Rd (S)	0	0	0	0	0	0	0	0	0
Heywood Old Road (N) - Whittle Lane	0	0	0	0	0	0	0	0	0
Avg. Jun. Delay (s/pcu)		0			0			0	

Table TIA11.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	67%	41	7.4	42%	24	5.7	65%	31	10
Langley Lane Right Left	69%	33	8.8	54%	40	4.6	74%	47	8.3
Heywood Old Road Ahead Right	62%	31	7.8	56%	21	8.4	74%	30	12
A6045 exit	28%	1	0.2	28%	1	0.2	34%	1	0.3
Total Delay Over All Lanes(pcuHr)		12			8			14	

Table TIA11.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.2	21	0.3	0.03	12	0.0	0.06	14	0.1
Langley Lane to A6046 (S)	0.64	59	1.8	0.28	24	0.4	0.43	41	0.8
A6046 (N) to Langley Lane	0.15	10	0.2	0.04	8	0.0	0.13	10	0.2
Avg. Jun. Delay (s/pcu)		4			1			2	

Table TIA11.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	59%	22	9.7	49%	19	6.1	53%	21	7.0
Coronation Road Right Left	112%	274	41.5	79%	39	7.6	88%	50	10.4
Manchester Road (S) Ahead Right	110%	238	67.1	78%	28	11.5	88%	38	15.3
Total Delay Over All Lanes(pcuHr)		95			10			15	

Table TIA11.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.76	12	3.1	0.69	9	2.2	0.89	24	7.0
Hollins Lane	0.94	85	8.9	0.66	27	1.9	0.68	31	2.0
Hollins Brow	1.06	129	36.9	0.76	15	3.0	0.66	11	1.9
Avg. Jun. Delay (s/pcu)		73			14			21	

Table TIA11.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	99%	93	20.7	94%	56	15.3	113%	270	55.0
Manchester Road (S) Ahead	100%	78	34.5	87%	30	15.0	93%	38	21.3
Manchester Road (S) Right	100%	126	11.6	90%	64	6.5	64%	35	2.5
Manchester Road (N) Left Ahead	99%	64	29.3	94%	40	16.0	112%	233	98.7
Total Delay Over All Lanes(pcuHr)		68			32			145	

Table TIA11.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	39%	16	3.6	60%	16	7.2	92%	33	19.9
A576 Middleton Road Right Ahead	94%	46	18.3	77%	20	11.9	82%	21	15.5
Kelvin Avenue Left Right Ahead	4%	16	0.2	4%	21	0.2	4%	25	0.2
Manchester Old Road Ahead Left Right	92%	36	9.7	76%	20	8.5	89%	37	5.2
Heywood Old Road Right Ahead Left	94%	55	14.6	74%	32	6.3	91%	57	10.7
Total Delay Over All Lanes(pcuHr)		29			15			24	

Individual Junction Assessments

Traffic Impact Assessment 12 – 2039 DS1 With M62 Access Solution (SATURN Model Run 18)

Table TIA12.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	51	13	4	52	21	3	67	22	6
M62 Westbound Offslip, O/S Lane	57	15	6	51	21	4	56	20	5
M62 Westbound Offslip, Circulating, N/S Lane	73	23	8	42	11	4	62	20	8
M62 Westbound Offslip, Circulating, O/S Lane	53	10	7	25	14	3	31	7	3
A6046 Middleton Road Northbound, N/S Lane	70	25	6	63	20	5	69	25	6
A6046 Middleton Road Northbound, O/S Lane	78	29	9	59	19	5	65	24	6
A6046 Middleton Road Northbound, Circulating, N/S Lane	65	11	19	43	9	2	54	10	10
A6046 Middleton Road Northbound, Circulating, O/S Lane	77	23	20	45	30	13	55	23	10
M62 Eastbound Offslip	11	1	1	19	0	1	23	1	1
Queen Elizabeth II Way, N/S Lane	42	15	4	38	15	3	37	17	3
Queen Elizabeth II Way, O/S Lane	29	13	3	26	14	3	39	16	3
Queen Elizabeth II Way, Circulating, N/S Lane	77	17	5	58	13	4	68	17	6
Queen Elizabeth II Way, Circulating, O/S Lane	23	5	1	29	6	1	21	15	2
A6046 Middleton Road Southbound, N/S Lane	64	15	7	53	11	5	72	22	7
A6046 Middleton Road Southbound, O/S Lane	39	10	4	23	7	3	35	14	3
A6046 Middleton Road Southbound, Circulating, N/S Lane	49	8	4	47	35	7	52	28	8
A6046 Middleton Road Southbound, Circulating, O/S Lane	60	15	8	74	30	10	51	22	9

Table TIA12.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	54%	33	6.2	42%	30	5.2	61%	35	8.5
Queen Elizabeth II Way (W) Ahead Right	54%	34	6.8	42%	43	3.1	54%	55	3.6
Queen Elizabeth II Way (E) Left Ahead	40%	33	3.7	41%	35	3.5	37%	34	4.1
Queen Elizabeth II Way (E) Right Ahead	45%	33	5.4	43%	35	5.0	52%	35	6.9
Manchester Road (N) Left Ahead Right	52%	24	5.8	43%	23	5.7	61%	27	8.5
Manchester Road (S) Ahead Right Left	54%	25	7.7	38%	25	4.9	50%	27	7.3
Total Delay Over All Lanes(pcuHr)		19			14			20	

Table TIA12.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	55%	21	10.2	62%	27	9.9	67%	31	13.2
Internal - Northbound Ahead	54%	3	1.0	38%	3	0.8	44%	3	1.0
Internal - Northbound Right	8%	8	0.6	6%	6	0.1	3%	8	0.0
Internal - Southbound Ahead	29%	3	0.6	34%	4	0.8	45%	5	1.4
Internal - Southbound Right	62%	37	6.0	36%	12	2.1	31%	13	1.7
Harehills Road South Left	13%	4	1.2	7%	4	0.6	3%	4	0.3
Harehills Road South Ahead	62%	22	12.4	36%	22	5.0	39%	25	6.5
Hill Top Road Left Right	41%	38	1.8	49%	37	2.6	58%	46	3.3
Unnamed Road Left	63%	45	6.9	62%	36	7.5	67%	39	10.4
Unnamed Road Right	15%	34	1.5	12%	26	1.3	19%	28	2.5
Total Delay Over All Lanes(pcuHr)		18			14			17	

Table TIA12.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	73%	25	9.5	59%	15	10.0	73%	23	16.0
Hareshill Road Right Ahead	73%	14	7.0	49%	8	3.7	74%	17	5.0
Pilsworth Road (n) Left Right	73%	22	7.2	59%	31	6.5	53%	32	6.8
Total Delay Over All Lanes(pcuHr)		12			8			12	

Table TIA12.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	76%	11	17.9	61%	12	13.2	65%	11	15.5
Pilsworth Road Right Left	142%	481	76.1	97%	99	18.8	100%	124	21.8
A58 Bridge Street (W) Ahead Right	153%	723	137.9	95%	61	24.0	100%	96	33.5
Total Delay Over All Lanes(pcuHr)		203			27			39	

Table TIA12.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.34	15	0.8	0.41	17	1.0	0.32	16	0.7
Heywood Dist. Park to Pilsworth Rd (W)	0.62	47	2.2	0.67	45	2.8	0.63	40	2.4
Heywood Distribution Park - RT	0.54	15	1.4	0.47	13	1.1	0.29	10	0.5
Avg. Jun. Delay (s/pcu)		8			11			8	

Table TIA12.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0.04	11	0.1	0.05	10	0.1	0.05	10	0.1
Plot 3 (SHEA) to Pilsworth Road (E)	0.05	20	0.1	0.05	14	0.1	0.05	15	0.1
Plot 3 (SHEA) RT	0.06	9	0.1	0.04	7	0.1	0.02	7	0.0
Avg. Jun. Delay (s/pcu)		0			1			0	

Table TIA12.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0.47	4	0.9	0.25	2	0.3	0.26	2	0.4
Moss Hall Road (S)	0.29	3	0.4	0.43	4	0.8	0.59	5	1.4
New Link Road	0.71	5	2.4	0.49	3	1.0	0.48	3	0.9
Moss Hall Road (NW)	0.03	6	0.0	0.04	4	0.0	0.02	4	0.0
Avg. Jun. Delay (s/pcu)		5			3			4	

Table TIA12.10: Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	0.48	3	0.9	0.47	3	0.9	0.62	4	1.6
Pilsworth Road	0.66	5	2.0	0.55	4	1.2	0.62	5	1.6
Moss Hall Road (N)	0.55	8	1.2	0.22	4	0.3	0.22	4	0.3
Avg. Jun. Delay (s/pcu)		5			4			5	

Table TIA12.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0.04	7	0.1	0.17	9	0.2	0.31	12	0.5
Whittle Lane - Heywood Old Rd (S)	0.02	16	0.0	0.05	13	0.1	0.09	18	0.1
Heywood Old Road (N) - Whittle Lane	0.27	8	0.4	0.10	7	0.1	0.10	7	0.1
Avg. Jun. Delay (s/pcu)		1			1			2	

Table TIA12.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	80%	50	15.1	33%	24	5.1	40%	22	6.1
Langley Lane Right Left	80%	44	15.2	58%	43	6.3	77%	58	7.7
Heywood Old Road Ahead Right	57%	36	9.1	58%	23	9.1	78%	28	13.9
A6045 exit	25%	1	0.2	27%	1	0.2	35%	1	0.3
Total Delay Over All Lanes(pcuHr)		18			9			14	

Table TIA12.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.16	15	0.2	0.02	13	0.0	0.03	14	0.0
Langley Lane to A6046 (S)	0.51	35	1.1	0.42	26	0.8	0.50	37	1.1
A6046 (N) to Langley Lane	0.02	8	0.0	0.04	8	0.0	0.11	9	0.1
Avg. Jun. Delay (s/pcu)		2			2			2	

Table TIA12.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	55%	19	7.9	44%	15	5.8	50%	17	6.9
Coronation Road Right Left	90%	61	9.8	70%	40	5.0	84%	50	7.4
Manchester Road (S) Ahead Right	90%	39	17.9	70%	21	10.9	84%	30	14.9
Total Delay Over All Lanes(pcuHr)		16			8			12	

Table TIA12.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.78	13	3.4	0.67	9	2.0	0.84	18	5.1
Hollins Lane	0.87	56	5.3	0.66	26	1.9	0.64	27	1.7
Hollins Brow	1.03	104	28.4	0.78	16	3.4	0.81	19	4.1
Avg. Jun. Delay (s/pcu)		58			14			19	

Table TIA12.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	114%	304	54.2	93%	52	14.2	113%	301	63.6
Manchester Road (S) Ahead	81%	22	20.5	85%	27	13.4	78%	25	23.2
Manchester Road (S) Right	104%	205	11.7	81%	46	4.4	95%	152	6.8
Manchester Road (N) Left Ahead	114%	269	121.3	94%	39	16.3	113%	266	126.0
Total Delay Over All Lanes(pcuHr)		159			29			160	

Table TIA12.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	63%	19	6.7	55%	12	5.8	70%	17	10.8
A576 Middleton Road Right Ahead	89%	32	15.5	69%	14	9.8	85%	22	18.1
Kelvin Avenue Left Right Ahead	4%	16	0.2	5%	22	0.2	3%	24	0.2
Manchester Old Road Ahead Left Right	82%	18	6.5	66%	14	5.8	85%	19	9.2
Heywood Old Road Right Ahead Left	90%	47	11.6	68%	31	4.5	86%	49	9.1
Total Delay Over All Lanes(pcuHr)		21			11			19	

Individual Junction Assessments

Traffic Impact Assessment 13 – 2039 South Heywood Sensitivity (SATURN Model Run 19)

Table TIA13.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	62	18	5	36	13	3	58	18	5
M62 Westbound Offslip, O/S Lane	68	21	7	35	14	3	54	18	5
M62 Westbound Offslip, Circulating, N/S Lane	71	13	6	60	25	7	64	13	5
M62 Westbound Offslip, Circulating, O/S Lane	43	18	7	34	20	3	36	17	5
A6046 Middleton Road Northbound, N/S Lane	68	24	5	71	24	5	69	22	6
A6046 Middleton Road Northbound, O/S Lane	78	30	9	66	22	5	54	19	5
A6046 Middleton Road Northbound, Circulating, N/S Lane	71	14	11	41	9	5	57	10	4
A6046 Middleton Road Northbound, Circulating, O/S Lane	52	9	10	47	26	10	43	17	12
M62 Eastbound Offslip	11	1	1	19	0	1	25	1	1
Queen Elizabeth II Way, N/S Lane	70	30	5	49	20	3	36	15	3
Queen Elizabeth II Way, O/S Lane	63	26	5	34	17	3	35	14	3
Queen Elizabeth II Way, Circulating, N/S Lane	57	13	5	50	10	4	74	16	6
Queen Elizabeth II Way, Circulating, O/S Lane	17	17	3	25	5	1	21	4	1
A6046 Middleton Road Southbound, N/S Lane	82	28	9	75	24	8	52	11	5
A6046 Middleton Road Southbound, O/S Lane	47	15	4	34	14	3	28	8	3
A6046 Middleton Road Southbound, Circulating, N/S Lane	63	20	10	46	20	7	46	28	4
A6046 Middleton Road Southbound, Circulating, O/S Lane	56	17	10	48	14	8	75	29	10
M62 Westbound Offslip, N/S Lane	62	18	5	36	13	3	58	18	5
M62 Westbound Offslip, O/S Lane	68	21	7	35	14	3	54	18	5
M62 Westbound Offslip, Circulating, N/S Lane	71	13	6	60	25	7	64	13	5

Table TIA13.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	55%	34	6.7	8%	25	0.9	36%	32	3.4
Queen Elizabeth II Way (W) Ahead Right	57%	35	7.8	49%	30	4.5	55%	34	4.8
Queen Elizabeth II Way (E) Left Ahead	37%	33	3.8	22%	30	2.4	45%	37	4.6
Queen Elizabeth II Way (E) Right Ahead	49%	34	6.4	49%	32	6.7	55%	37	7
Manchester Road (N) Left Ahead Right	57%	26	7.6	50%	26	6.8	56%	25	8.1
Manchester Road (S) Ahead Right Left	55%	26	8	41%	27	5.3	46%	24	6.6
Total Delay Over All Lanes(pcuHr)		20			14			19	

Table TIA13.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	59%	23	10.4	62%	27.3	10.3	71%	31	12.5
Internal - Northbound Ahead	56%	3.1	1.1	37%	2.6	0.8	45%	2.9	1
Internal - Northbound Right	8%	8.5	0.6	6%	6.5	0.1	3%	8.2	0
Internal - Southbound Ahead	30%	2.9	0.6	35%	4	0.8	44%	5.1	1.4
Internal - Southbound Right	63%	38.9	5.6	36%	12	2.2	29%	11.9	1.4
Harehills Road South Left	17%	4.3	1.7	6%	3.9	0.6	3%	3.9	0.3
Harehills Road South Ahead	66%	23.9	12.3	36%	21.9	5.1	41%	23.6	6
Hill Top Road Left Right	40%	35.6	1.7	50%	38	2.6	52%	37.2	2.7
Unnamed Road Left	65%	42.3	7.1	60%	35.3	7.4	70%	38	9.5
Unnamed Road Right	19%	31.7	1.9	13%	26.5	1.4	23%	26.9	2.6
Total Delay Over All Lanes(pcuHr)		19			14			17	

Table TIA13.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	74%	25	9.5	66%	18	10.2	76%	24	16.2
Hareshill Road Right Ahead	74%	13	7	51%	9	3.7	76%	18	5.2
Pilsworth Road (n) Left Right	77%	23	7.6	53%	25	5.5	51%	29	6.3
Total Delay Over All Lanes(pcuHr)		13			8			12	

Table TIA13.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	75%	11	19.4	61%	12	13.5	66%	11	15.6
Pilsworth Road Right Left	146%	655	104.5	96%	96	18.4	101%	134	23.3
A58 Bridge Street (W) Ahead Right	146%	677	132.8	97%	75	28.2	101%	112	36.8
Total Delay Over All Lanes(pcuHr)		223			29			43	

Table TIA13.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.34	15	0.8	0.41	17	1	0.32	16	0.7
Heywood Dist. Park to Pilsworth Rd (W)	0.63	49	2.4	0.68	46	3	0.65	41	2.6
Heywood Distribution Park - RT	0.56	15	1.5	0.47	13	1.1	0.3	10	0.5
Avg. Jun. Delay (s/pcu)		8			11			9	

Table TIA13.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0.04	11	0.1	0.05	10	0.1	0.06	10	0.1
Plot 3 (SHEA) to Pilsworth Road (E)	0.05	20	0.1	0.05	14	0.1	0.05	15	0.1
Plot 3 (SHEA) RT	0.07	9	0.1	0.04	7	0.1	0.02	7	0
Avg. Jun. Delay (s/pcu)		1			1			1	

Table TIA13.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0.48	4	0.9	0.25	2	0.3	0.27	2	0.4
Moss Hall Road (S)	0.30	3	0.4	0.44	4	0.8	0.59	5	1.5
New Link Road	0.72	5	2.6	0.49	3	1.0	0.49	3	1.0
Moss Hall Road (NW)	0.03	6	0.0	0.04	4	0.0	0.02	4	0.0
Avg. Jun. Delay (s/pcu)		5			3			4	

Table TIA13.10 Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	0.49	3	1.0	0.47	3	0.9	0.63	4	1.7
Pilsworth Road	0.67	5	2.1	0.56	4	1.3	0.63	5	1.7
Moss Hall Road (N)	0.58	9	1.4	0.23	4	0.3	0.23	4	0.3
Avg. Jun. Delay (s/pcu)		5			4			5	

Table TIA13.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
	Bridge Hall Lane - Signalised T-Junction								
Bridge Hall Lane Westbound, N/S Lane	8	24	0	9	21	0	7	14	0
Bridge Hall Lane Westbound, O/S Lane	28	26	2	31	23	2	13	14	1
Bridge Hall Lane Northbound	18	1	2	19	2	1	8	4	2
	M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction								
M66 Southbound Off-Slip, N/S Lane	16	3	4	16	5	4	14	3	4
M66 Southbound Off-Slip, Middle Lane	7	3	1	6	4	0	7	3	1
M66 Southbound Off-Slip, O/S Lane	15	3	4	10	4	4	13	3	4
Bridge Hall Lane Westbound, N/S Lane	9	31	0	10	6	0	18	11	2
Bridge Hall Lane Westbound, O/S Lane	30	34	2	32	8	0	36	14	3
	M66 Junction 2 Interchange								
M66 Southbound Off-Slip, N/S Lane	47	18	3	55	21	3	52	25	3
M66 Southbound Off-Slip, Middle Lane	20	15	2	26	12	2	34	20	2
M66 Southbound Off-Slip, O/S Lane	52	18	3	42	15	2	53	25	3
M66 Southbound Off-Slip, Circulating, N/S Lane	69	9	15	61	12	15	67	8	17
M66 Southbound Off-Slip, Circulating, Middle Lane	58	5	5	55	2	5	63	6	5
M66 Southbound Off-Slip, Circulating, O/S Lane	58	5	3	52	2	0	55	5	3
A58 Bury New Road, N/S Lane	124	515	150	81	35	8	116	421	111
A58 Bury New Road, Middle Lane	35	23	3	54	22	4	66	35	5
A58 Bury New Road, O/S Lane	30	22	2	34	19	3	30	28	2
A58 Bury New Road, Circulating, N/S Lane	72	8	13	66	6	12	77	8	13
A58 Bury New Road, Circulating, Middle Lane	85	15	14	74	8	10	81	13	11
A58 Bury New Road, Circulating, O/S Lane	28	20	7	18	11	3	20	17	5
M66 Northbound Off-Slip, N/S Lane	120	540	191	91	44	13	115	417	136
M66 Northbound Off-Slip, Middle Lane	99	83	22	96	55	16	96	67	17
M66 Northbound Off-Slip, O/S Lane	28	15	4	34	15	4	48	19	4
M66 Northbound Off-Slip, Circulating, N/S Lane	99	91	15	99	80	15	94	46	13
M66 Northbound Off-Slip, Circulating, Middle Lane	97	70	17	97	61	12	98	64	15
M66 Northbound Off-Slip, Circulating, O/S Lane	38	12	2	41	13	3	31	10	3
Waterfold, N/S Lane	16	25	2	20	25	2	19	25	2
Waterfold, O/S Lane	28	26	2	40	28	2	70	39	4
A58 Rochdale Road, N/S Lane	67	17	14	65	15	13	72	20	16
A58 Rochdale Road, Middle Lane	69	19	15	66	17	14	76	21	19
A58 Rochdale Road, O/S Lane	64	12	7	66	11	6	71	13	8
A58 Rochdale Road, Circulating, N/S Lane	0	0	0	1	33	0	1	4	0
A58 Rochdale Road, Circulating, Middle Lane	68	31	8	71	22	9	79	26	10
A58 Rochdale Road, Circulating, O/S Lane	5	0	0	6	33	2	16	4	0
	A58 Rochdale Road/ B6621 Wash Lane								
A58 Rochdale Road Eastbound, N/S Lane	78	26	9	75	24	8	79	28	9
A58 Rochdale Road Eastbound, O/S Lane	73	22	8	64	19	6	79	26	9
B6221 Wash Lane, N/S Lane	63	17	7	56	15	6	60	16	6
B6221 Wash Lane, O/S Lane	58	14	6	52	13	5	55	13	6
A58 Rochdale Road Westbound, N/S Lane	48	1	0	49	2	0	50	2	0
A58 Rochdale Road Westbound, Middle Lane	40	1	0	39	1	0	39	1	0
A58 Rochdale Road Westbound, O/S Lane	70	18	7	71	14	6	73	19	7

Table TIA13.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0.03	7	0.0	0.18	9	0.2	0.32	12	0.5
Whittle Lane - Heywood Old Rd (S)	0.03	16	0.0	0.08	14	0.1	0.19	21	0.3
Heywood Old Road (N) - Whittle Lane	0.28	9	0.4	0.11	7	0.1	0.11	7	0.1
Avg. Jun. Delay (s/pcu)		1			1			2	

Table TIA13.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	73%	47	11.5	44%	27	5	60%	34	8.4
Langley Lane Right Left	75%	38	13.2	62%	38	5.7	80%	51	9.6
Heywood Old Road Ahead Right	62%	37	9.3	62%	24	8.1	82%	34	14.8
A6045 exit	26%	1	0.2	26%	1	0.2	33%	1	0.2
Total Delay Over All Lanes(pcuHr)		15			9			17	

Table TIA13.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.02	15	0.0	0.02	14	0.0	0.02	16	0.0
Langley Lane to A6046 (S)	0.53	36	1.2	0.45	28	0.9	0.55	44	1.3
A6046 (N) to Langley Lane	0.02	8	0.0	0.04	8	0.0	0.12	9	0.2
Avg. Jun. Delay (s/pcu)		2			2			2	

Table TIA13.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	55%	20	8.6	48%	16	5.9	50%	17	6.7
Coronation Road Right Left	95%	85	14.4	74%	42	4.9	82%	46	7.1
Manchester Road (S) Ahead Right	94%	56	20.5	75%	23	11	82%	29	14
Total Delay Over All Lanes(pcuHr)		23			9			11	

Table TIA13.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.78	13	3.4	0.68	9	2.1	0.85	19	5.2
Hollins Lane	0.87	57	5.5	0.66	26	1.9	0.64	27	1.7
Hollins Brow	1.03	106	29.2	0.78	17	3.4	0.81	18	4
Avg. Jun. Delay (s/pcu)		59			14			19	

Table TIA13.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	108%	195	34.9	93%	53	14.3	106%	163	34.3
Manchester Road (S) Ahead	94%	38	21.2	85%	27	13.7	95%	44	21.3
Manchester Road (S) Right	68%	35	2.7	81%	46	4.4	51%	28	1.8
Manchester Road (N) Left Ahead	105%	131	58.8	95%	41	16.9	102%	97	44.1
Total Delay Over All Lanes(pcuHr)		89			30			75	

Table TIA13.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	51%	18	5.4	61%	15	7.6	91%	32	19
A576 Middleton Road Right Ahead	94%	43	18.7	74%	18	11.6	83%	22	16.3
Kelvin Avenue Left Right Ahead	4%	17	0.3	4%	23	0.2	4%	24	0.2
Manchester Old Road Ahead Left	91%	36	9.1	74%	37	8.6	89%	37	4.6
Manchester Old Road Ahead Right	93%	54	14.4	75%	34	6.6	92%	59	11.1
Total Delay Over All Lanes(pcuHr)		28			15			24	

Individual Junction Assessments

Traffic Impact Assessment 14 – 2039 DS3 With M62 Access Solution - Policy On Scenario (SATURN Model Run 20)

Table TIA14.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	47	16	4	26	16	3	51	18	4
M62 Westbound Offslip, O/S Lane	54	18	5	37	17	3	43	17	4
M62 Westbound Offslip, Circulating, N/S Lane	67	19	8	36	14	4	47	17	6
M62 Westbound Offslip, Circulating, O/S Lane	62	20	6	28	18	4	39	15	4
A6046 Middleton Road Northbound, N/S Lane	84	39	7	50	16	4	70	24	6
A6046 Middleton Road Northbound, O/S Lane	55	24	4	43	15	4	50	19	4
A6046 Middleton Road Northbound, Circulating, N/S Lane	79	17	24	38	6	1	49	9	15
A6046 Middleton Road Northbound, Circulating, O/S Lane	89	35	19	36	35	9	54	24	13
M62 Eastbound Offslip	29	1	2	21	0	1	26	1	2
Queen Elizabeth II Way, N/S Lane	42	18	3	24	14	3	36	17	3
Queen Elizabeth II Way, O/S Lane	51	19	4	15	13	3	30	16	3
Queen Elizabeth II Way, Circulating, N/S Lane	69	15	6	57	13	4	72	16	6
Queen Elizabeth II Way, Circulating, O/S Lane	14	9	1	21	7	1	12	9	1
A6046 Middleton Road Southbound, N/S Lane	58	17	5	57	16	5	62	19	6
A6046 Middleton Road Southbound, O/S Lane	61	16	6	30	11	3	44	15	4
A6046 Middleton Road Southbound, Circulating, N/S Lane	55	31	9	41	24	7	55	29	7
A6046 Middleton Road Southbound, Circulating, O/S Lane	56	25	10	36	11	7	35	19	7

Table TIA14.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	49%	38	4.7	3%	26	0.3	42%	33	4.5
Queen Elizabeth II Way (W) Ahead Right	52%	38	5.9	34%	29	3.5	40%	36	2.8
Queen Elizabeth II Way (E) Left Ahead	35%	37	3	13%	31	1.2	36%	37	2.6
Queen Elizabeth II Way (E) Right Ahead	36%	37	3.7	34%	32	4.1	36%	36	3.9
Manchester Road (N) Left Ahead Right	32%	18	3.6	28%	22	3.7	43%	21	6.2
Manchester Road (S) Ahead Right Left	53%	21	7.8	35%	25	4.6	36%	21	5
Total Delay Over All Lanes(pcuHr)		15			9			13	

Table TIA14.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	43%	16	7.4	47%	22	4.9	51%	23	5.5
Internal - Northbound Ahead	31%	2	0.2	15%	2	0.1	22%	2	0.1
Internal - Northbound Right	10%	6	0.6	6%	3	0.6	4%	4	0
Internal - Southbound Ahead	22%	2	0.4	20%	3	0.4	26%	3	0.8
Internal - Southbound Right	0%	0	0	0%	0	0	0%	2	0
Harehills Road South Left	0%	4	0	0%	0	0	0%	0	0
Harehills Road South Ahead	42%	13	6.7	25%	15	2.5	36%	17	3.7
Hill Top Road Left Right	47%	50	2.9	40%	29	2.3	48%	28	2.9
Unnamed Road Left	1%	44	0	0%	0	0	0%	0	0
Unnamed Road Right	0%	0	0	0%	0	0	0%	28	0
Total Delay Over All Lanes(pcuHr)		6			5			6	

Table TIA14.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	90%	41	15	76%	22	15.5	76%	21	17.7
Hareshill Road Right Ahead	91%	28	18.5	54%	12	8	77%	14	6.6
Pilsworth Road (n) Left Right	91%	42	13.2	75%	38	8.1	77%	45	7.9
Total Delay Over All Lanes(pcuHr)		25			12			13	

Table TIA14.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	67%	11	16	58%	10	7.8	62%	12	11.8
Pilsworth Road Right Left	103%	166	22.8	74%	38	5.8	81%	49	9.4
A58 Bridge Street (W) Ahead Right	102%	125	36.1	73%	21	9.4	83%	33	15.7
Total Delay Over All Lanes(pcuHr)		43			9			15	

Table TIA14.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.15	11	0.3	0.21	11	0.4	0.2	12	0.4
Heywood Dist. Park to Pilsworth Rd (W)	0.26	22	0.5	0.31	18	0.7	0.39	22	1
Heywood Distribution Park - RT	0.29	10	0.5	0.14	8	0.2	0.08	7	0.1
Avg. Jun. Delay (s/pcu)		3			4			4	

Table TIA14.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0	0	0	0	0	0	0	0	0
Plot 3 (SHEA) to Pilsworth Road (E)	0	0	0	0	0	0	0	0	0
Plot 3 (SHEA) RT	0.01	8	0	0	0	0	0.01	7	0
Avg. Jun. Delay (s/pcu)		0			0			0	

Table TIA14.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0.41	3	0.7	0.23	2	0.3	0.27	2	0.4
Moss Hall Road (S)	0.31	3	0.4	0.41	4	0.7	0.56	5	1.3
New Link Road	0.65	4	1.8	0.43	3	0.7	0.42	3	0.7
Moss Hall Road (NW)	0.03	5	0.00	0.03	4	0	0.02	4	0.0
Avg. Jun. Delay (s/pcu)		4			3			3	

Table TIA14.10: Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	0.45	3	0.8	0.46	3	0.8	0.58	4	1.4
Pilsworth Road	0.58	4	1.4	0.47	3	0.9	0.56	4	1.2
Moss Hall Road (N)	0.46	6	0.8	0.21	4	0.3	0.18	4	0.2
Avg. Jun. Delay (s/pcu)		4			3			4	

Table TIA14.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Bridge Hall Lane - Signalised T-Junction									
Bridge Hall Lane Westbound, N/S Lane	8	24	0	8	21	0	8	18	1
Bridge Hall Lane Westbound, O/S Lane	24	25	1	27	23	2	15	18	1
Bridge Hall Lane Northbound	16	2	1	16	4	2	6	2	0
M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction									
M66 Southbound Off-Slip, N/S Lane	19	4	4	17	5	4	13	3	4
M66 Southbound Off-Slip, Middle Lane	6	3	0	6	5	0	6	3	0
M66 Southbound Off-Slip, O/S Lane	13	3	4	11	5	4	11	3	4
Bridge Hall Lane Westbound, N/S Lane	9	6	0	8	0	0	17	7	2
Bridge Hall Lane Westbound, O/S Lane	26	7	0	24	1	0	30	9	2
M66 Junction 2 Interchange									
M66 Southbound Off-Slip, N/S Lane	60	22	3	63	25	5	54	26	3
M66 Southbound Off-Slip, Middle Lane	17	15	2	28	17	2	31	21	2
M66 Southbound Off-Slip, O/S Lane	47	17	3	47	20	3	48	25	3
M66 Southbound Off-Slip, Circulating, N/S Lane	68	8	10	50	6	10	52	8	10
M66 Southbound Off-Slip, Circulating, Middle Lane	53	3	5	47	4	3	52	2	3
M66 Southbound Off-Slip, Circulating, O/S Lane	53	2	0	44	3	3	47	2	0
A58 Bury New Road, N/S Lane	85	33	12	69	27	6	81	32	8
A58 Bury New Road, Middle Lane	37	16	3	47	21	3	56	21	4
A58 Bury New Road, O/S Lane	37	16	3	32	19	2	31	17	2
A58 Bury New Road, Circulating, N/S Lane	72	6	13	60	6	12	71	8	12
A58 Bury New Road, Circulating, Middle Lane	83	14	14	65	5	10	74	8	13
A58 Bury New Road, Circulating, O/S Lane	24	24	5	17	2	5	18	17	3
M66 Northbound Off-Slip, N/S Lane	104	292	110	82	30	9	101	226	74
M66 Northbound Off-Slip, Middle Lane	100	109	28	87	33	11	99	82	21
M66 Northbound Off-Slip, O/S Lane	25	14	4	27	14	4	35	16	4
M66 Northbound Off-Slip, Circulating, N/S Lane	100	103	20	84	27	5	94	51	12
M66 Northbound Off-Slip, Circulating, Middle Lane	101	122	27	87	31	10	98	69	15
M66 Northbound Off-Slip, Circulating, O/S Lane	54	19	5	38	5	0	38	14	3
Waterfold, N/S Lane	11	24	0	14	24	0	14	24	0
Waterfold, O/S Lane	20	25	2	33	27	2	52	31	3
A58 Rochdale Road, N/S Lane	74	18	15	59	15	13	66	16	14
A58 Rochdale Road, Middle Lane	64	17	14	59	16	14	62	16	14
A58 Rochdale Road, O/S Lane	67	12	7	60	11	6	64	11	6
A58 Rochdale Road, Circulating, N/S Lane	0	27	0	1	2	0	1	29	0
A58 Rochdale Road, Circulating, Middle Lane	65	17	8	58	21	7	67	17	8
A58 Rochdale Road, Circulating, O/S Lane	3	27	0	6	3	0	12	30	2
A58 Rochdale Road/ B6621 Wash Lane									
A58 Rochdale Road Eastbound, N/S Lane	75	24	8	65	22	6	68	22	6
A58 Rochdale Road Eastbound, O/S Lane	62	19	6	59	20	6	66	21	7
B6221 Wash Lane, N/S Lane	63	17	7	51	13	5	54	14	6
B6221 Wash Lane, O/S Lane	58	14	6	47	11	5	50	12	5
A58 Rochdale Road Westbound, N/S Lane	49	2	0	44	1	0	51	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	34	1	0	38	1	0
A58 Rochdale Road Westbound, O/S Lane	75	19	7	63	17	6	78	18	9

Table TIA14.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0.05	7	0.1	0.16	8	0.2	0.25	11	0.4
Whittle Lane - Heywood Old Rd (S)	0.02	13	0	0.02	11	0	0.09	16	0.1
Heywood Old Road (N) - Whittle Lane	0.17	7	0.2	0.05	6	0.1	0.04	7	0
Avg. Jun. Delay (s/pcu)		1			1			1	

Table TIA14.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	65%	38	5.8	35%	24	4.3	37%	20	5.5
Langley Lane Right Left	68%	33	7	47%	36	3.9	68%	55	5.5
Heywood Old Road Ahead Right	56%	27	6	46%	21	5.6	67%	22	9.9
A6045 exit	23%	1	0.1	19%	1	0.1	31%	1	0.2
Total Delay Over All Lanes(pcuHr)		10			6			10	

Table TIA14.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.14	14	0.2	0.05	11	0.1	0.03	12	0
Langley Lane to A6046 (S)	0.54	28	1.2	0.34	18	0.6	0.39	24	0.7
A6046 (N) to Langley Lane	0.01	7	0	0.02	7	0	0.08	8	0.1
Avg. Jun. Delay (s/pcu)		3			2			2	

Table TIA14.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	60%	22	8.3	35%	14	4.5	38%	16	4.6
Coronation Road Right Left	77%	39	9.3	58%	36	3.6	73%	37	6.3
Manchester Road (S) Ahead Right	78%	33	11.5	59%	18	8.4	74%	25	10.9
Total Delay Over All Lanes(pcuHr)		12			6			9	

Table TIA14.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.73	11	2.7	0.59	7	1.4	0.75	12	3
Hollins Lane	0.68	25	2	0.5	17	1	0.5	19	1
Hollins Brow	0.85	23	5.1	0.62	9	1.6	0.7	11	2.3
Avg. Jun. Delay (s/pcu)		18			9			12	

Table TIA14.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	98%	87	19.1	84%	36	11.7	91%	48	15.2
Manchester Road (S) Ahead	73%	19	11.5	73%	22	10.8	85%	30	15.6
Manchester Road (S) Right	57%	32	2	63%	32	2.8	62%	34	2.5
Manchester Road (N) Left Ahead	98%	56	24.9	84%	29	11.5	92%	37	15.2
Total Delay Over All Lanes(pcuHr)		36			19			27	

Table TIA14.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	38%	16	2.9	59%	15	5.1	84%	21	14
A576 Middleton Road Right Ahead	86%	31	11.1	68%	16	7.2	66%	14	9.9
Kelvin Avenue Left Right Ahead	3%	13	0.2	3%	18	0.1	3%	25	0.1
Manchester Old Road Ahead Left	57%	19	5.1	63%	16	3.1	85%	34	4.7
Manchester Old Road Ahead Right	83%	31	9.1	66%	25	4.2	85%	47	7.5
Total Delay Over All Lanes(pcuHr)		15			10			16	

Individual Junction Assessments

Traffic Impact Assessment 15 – 2039 DS3 Without M62 Access Solution (SATURN Model Run 21)

Table TIA15.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	86	27	10	45	14	4	83	33	8
M62 Westbound Offslip, O/S Lane	47	11	3	25	12	3	33	17	3
M62 Westbound Offslip, Circulating, N/S Lane	80	26	11	59	15	4	50	9	7
M62 Westbound Offslip, Circulating, O/S Lane	80	30	14	35	4	3	33	7	3
A6046 Middleton Road Northbound, N/S Lane	80	35	6	44	13	4	67	24	5
A6046 Middleton Road Northbound, O/S Lane	64	26	5	41	13	4	64	23	5
A6046 Middleton Road Northbound, Circulating, N/S Lane	68	7	9	41	6	1	52	4	14
A6046 Middleton Road Northbound, Circulating, O/S Lane	72	23	23	60	21	8	54	14	10
M62 Eastbound Offslip, N/S Lane	57	27	4	54	25	3	75	36	5
M62 Eastbound Offslip, O/S Lane	32	22	3	25	20	3	45	25	3
M62 Eastbound Offslip, Circulating, N/S Lane	61	17	10	31	4	3	34	3	3
M62 Eastbound Offslip, Circulating, O/S Lane	85	26	11	44	8	6	76	18	8
Queen Elizabeth II Way, N/S Lane	42	21	3	29	16	3	67	26	5
Queen Elizabeth II Way, O/S Lane	87	41	9	48	19	4	57	23	4
Queen Elizabeth II Way, Circulating, N/S Lane	63	14	7	63	12	5	73	14	7
Queen Elizabeth II Way, Circulating, O/S Lane	20	3	3	17	7	3	23	6	3
A6046 Middleton Road Southbound, N/S Lane	83	35	8	59	17	5	55	15	5
A6046 Middleton Road Southbound, O/S Lane	88	39	10	34	12	3	38	12	4
A6046 Middleton Road Southbound, Circulating, N/S Lane	50	5	4	43	10	3	60	6	1
A6046 Middleton Road Southbound, Circulating, O/S Lane	65	12	8	58	11	7	80	20	10

Table TIA15.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	68%	32	7.6	34%	21	2.7	63%	29	6.5
Queen Elizabeth II Way (W) Ahead Right	70%	32	9.5	35%	21	3.4	40%	27	2.1
Queen Elizabeth II Way (E) Left Ahead	34%	25	3.1	33%	22	2.6	44%	26	3.9
Queen Elizabeth II Way (E) Right Ahead	35%	26	3.9	34%	22	3.2	46%	26	4.6
Manchester Road (N) Left Ahead Right	59%	28	4.0	47%	24	3.3	66%	27	7.0
Manchester Road (S) Ahead Right Left	70%	31	8.7	47%	28	3.7	41%	25	4.0
Total Delay Over All Lanes(pcuHr)		19			10			15	

Table TIA15.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	43%	13	9.8	42%	18	8.3	53%	20	10.0
Internal - Northbound Ahead	48%	2	0.5	30%	2	0.2	31%	2	0.2
Internal - Northbound Right	11%	7	0.6	7%	6	0.6	4%	8	0.0
Internal - Southbound Ahead	26%	2	0.4	27%	3	0.9	34%	3	0.9
Internal - Southbound Right	0%	0	0.0	0%	0	0.0	0%	6	0.0
Harehills Road South Left	0%	3	0.0	0%	0	0.0	0%	0	0.0
Harehills Road South Ahead	61%	13	14.7	39%	15	7.1	42%	16	7.0
Hill Top Road Left Right	57%	72	4.0	41%	42	3.3	52%	41	4.2
Unnamed Road Left	1%	61	0.0	0%	0	0.0	0%	0	0.0
Unnamed Road Right	0%	0	0.0	0%	0	0.0	0%	43	0.0
Total Delay Over All Lanes(pcuHr)		8			7			8	

Table TIA15.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	77%	27	10.3	63%	17	10.0	70%	17	13.6
Hareshill Road Right Ahead	67%	15	9.5	34%	8	3.7	44%	8	3.4
Pilsworth Road (n) Left Right	78%	28	8.2	62%	35	4.7	68%	43	5.6
Total Delay Over All Lanes(pcuHr)		13			7			8	

Table TIA15.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	70%	12	17.7	61%	11	9.4	63%	12	12.9
Pilsworth Road Right Left	106%	205	28.7	79%	43	7.7	83%	54	10.2
A58 Bridge Street (W) Ahead Right	105%	163	40.8	76%	26	10.8	82%	33	16.1
Total Delay Over All Lanes(pcuHr)		54			11			15	

Table TIA15.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.15	7	0.2	0.22	8	0.3	0.21	9	0.3
Heywood Dist. Park to Pilsworth Rd (W)	0.34	20	0.5	0.38	16	0.6	0.47	20	0.9
Heywood Distribution Park - RT	0.42	10	0.7	0.28	8	0.4	0.16	7	0.2
Avg. Jun. Delay (s/pcu)		2			3			3	

Table TIA15.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0.00	0	0.0	0.00	0	0.0	0.00	0	0.0
Plot 3 (SHEA) to Pilsworth Road (E)	0.00	0	0.0	0.00	0	0.0	0.00	0	0.0
Plot 3 (SHEA) RT	0.00	0	0.0	0.00	0	0.0	0.00	6	0.0
Avg. Jun. Delay (s/pcu)		0			0			0	

Table TIA15.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0.57	5	1.3	0.31	3	0.5	0.31	2	0.4
Moss Hall Road (S)	0.44	4	0.8	0.67	6	2.0	0.84	13	4.9
New Link Road	0.70	5	2.3	0.47	3	0.9	0.38	3	0.6
Moss Hall Road (NW)	0.03	6	0.0	0.04	5	0.0	0.02	4	0.0
Avg. Jun. Delay (s/pcu)		5			4			8	

Table TIA15.10: Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Moss Hall Road (S)	0.45	3	0.8	0.53	3	1.1	0.71	5	2.5
Pilsworth Road	0.59	4	1.4	0.47	3	0.9	0.50	4	1.0
Moss Hall Road (N)	0.41	6	0.7	0.19	4	0.2	0.15	4	0.2
Avg. Jun. Delay (s/pcu)		4			3			5	

Table TIA15.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
	Bridge Hall Lane - Signalised T-Junction								
Bridge Hall Lane Westbound, N/S Lane	8	24	0	7	20	0	10	20	1
Bridge Hall Lane Westbound, O/S Lane	24	25	1	24	22	1	19	21	1
Bridge Hall Lane Northbound	16	1	0	17	2	0	5	2	0
	M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction								
M66 Southbound Off-Slip, N/S Lane	18	4	4	14	3	4	13	4	4
M66 Southbound Off-Slip, Middle Lane	7	3	1	5	3	0	6	3	0
M66 Southbound Off-Slip, O/S Lane	11	3	4	9	3	4	11	4	4
Bridge Hall Lane Westbound, N/S Lane	9	29	0	12	8	0	15	9	0
Bridge Hall Lane Westbound, O/S Lane	26	31	2	39	12	0	27	11	0
	M66 Junction 2 Interchange								
M66 Southbound Off-Slip, N/S Lane	40	13	3	37	15	2	42	17	3
M66 Southbound Off-Slip, Middle Lane	18	11	2	18	10	2	25	14	2
M66 Southbound Off-Slip, O/S Lane	26	11	2	30	12	2	39	16	3
M66 Southbound Off-Slip, Circulating, N/S Lane	82	20	18	65	14	15	54	8	12
M66 Southbound Off-Slip, Circulating, Middle Lane	71	8	6	58	5	7	56	5	5
M66 Southbound Off-Slip, Circulating, O/S Lane	70	7	3	55	2	0	50	4	3
A58 Bury New Road, N/S Lane	78	28	10	67	25	6	81	31	11
A58 Bury New Road, Middle Lane	55	19	4	43	19	3	48	19	4
A58 Bury New Road, O/S Lane	39	17	3	28	17	2	28	16	2
A58 Bury New Road, Circulating, N/S Lane	77	31	13	65	4	12	74	14	13
A58 Bury New Road, Circulating, Middle Lane	92	44	18	71	8	12	78	13	13
A58 Bury New Road, Circulating, O/S Lane	54	20	3	18	18	3	19	6	5
M66 Northbound Off-Slip, N/S Lane	101	260	97	86	36	10	100	176	55
M66 Northbound Off-Slip, Middle Lane	100	109	28	88	36	11	99	80	22
M66 Northbound Off-Slip, O/S Lane	34	15	4	36	16	4	30	15	4
M66 Northbound Off-Slip, Circulating, N/S Lane	95	65	13	81	28	7	100	97	16
M66 Northbound Off-Slip, Circulating, Middle Lane	100	177	31	84	28	9	99	77	17
M66 Northbound Off-Slip, Circulating, O/S Lane	54	17	5	36	17	3	40	9	2
Waterfold, N/S Lane	11	24	0	14	24	0	14	24	0
Waterfold, O/S Lane	20	25	2	33	27	2	53	31	3
A58 Rochdale Road, N/S Lane	70	17	14	58	15	13	60	14	13
A58 Rochdale Road, Middle Lane	69	19	19	60	16	14	61	14	14
A58 Rochdale Road, O/S Lane	65	12	7	60	12	6	58	9	6
A58 Rochdale Road, Circulating, N/S Lane	0	3	0	1	26	0	1	3	0
A58 Rochdale Road, Circulating, Middle Lane	84	28	7	67	15	8	73	27	8
A58 Rochdale Road, Circulating, O/S Lane	4	3	0	6	26	2	14	3	0
	A58 Rochdale Road/ B6621 Wash Lane								
A58 Rochdale Road Eastbound, N/S Lane	79	28	9	74	27	7	71	24	7
A58 Rochdale Road Eastbound, O/S Lane	66	20	6	67	23	6	69	22	7
B6221 Wash Lane, N/S Lane	61	16	6	50	11	4	52	13	5
B6221 Wash Lane, O/S Lane	56	13	6	44	10	4	48	12	5
A58 Rochdale Road Westbound, N/S Lane	48	2	0	45	1	0	53	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	34	1	0	39	1	0
A58 Rochdale Road Westbound, O/S Lane	72	17	6	59	10	3	77	21	7

Table TIA15.13: Whittle Lane / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Whittle Lane - Heywood Old Rd (N)	0.06	7	0.1	0.23	8	0.3	0.56	17	1.2
Whittle Lane - Heywood Old Rd (S)	0.02	14	0.0	0.14	12	0.2	0.36	19	0.5
Heywood Old Road (N) - Whittle Lane	0.40	9	0.7	0.13	6	0.1	0.06	6	0.1
Avg. Jun. Delay (s/pcu)		2			2			4	

Table TIA15.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	71%	37	9.5	47%	28	4.8	32%	18	6.0
Langley Lane Right Left	72%	39	8.5	49%	33	3.8	71%	66	7.0
Heywood Old Road Ahead Right	55%	28	5.2	49%	22	5.5	70%	22	14.3
A6045 exit	21%	1	0.1	19%	1	0.1	35%	1	0.3
Total Delay Over All Lanes(pcuHr)		12			7			11	

Table TIA15.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.25	15	0.3	0.05	10	0.1	0.04	12	0.0
Langley Lane to A6046 (S)	0.59	31	1.4	0.36	18	0.6	0.49	28	0.9
A6046 (N) to Langley Lane	0.01	7	0.0	0.02	7	0.0	0.08	7	0.1
Avg. Jun. Delay (s/pcu)		3			1			2	

Table TIA15.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	61%	23	8.4	39%	16	4.4	38%	18	4.4
Coronation Road Right Left	80%	40	10.5	64%	33	4.9	78%	37	7.7
Manchester Road (S) Ahead Right	79%	36	11.4	64%	21	8.2	79%	29	11.5
Total Delay Over All Lanes(pcuHr)		13			7			10	

Table TIA15.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.72	10	2.6	0.60	7	1.5	0.76	12	3.1
Hollins Lane	0.72	28	2.5	0.48	17	0.9	0.49	18	0.9
Hollins Brow	0.86	26	5.7	0.60	9	1.5	0.68	11	2.1
Avg. Jun. Delay (s/pcu)		20			9			12	

Table TIA15.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	103%	162	34.6	86%	36	11.2	92%	49	15.0
Manchester Road (S) Ahead	69%	20	18.4	77%	23	10.6	90%	36	17.0
Manchester Road (S) Right	104%	231	10.6	64%	31	2.7	58%	31	2.2
Manchester Road (N) Left Ahead	104%	122	69.6	82%	27	10.4	92%	37	15.1
Total Delay Over All Lanes(pcuHr)		78			19			28	

Table TIA15.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road Left	50%	18	4.0	58%	15	4.9	88%	27	14.3
A576 Middleton Road Right Ahead	81%	27	9.8	67%	16	6.9	72%	16	9.5
Kelvin Avenue Left Right Ahead	3%	13	0.2	3%	17	0.1	3%	20	0.1
Manchester Old Road Ahead Left Right	59%	17	4.0	57%	13	2.9	74%	17	5.3
Heywood Old Road Right Ahead Left	84%	32	9.4	68%	25	4.5	90%	50	9.0
Total Delay Over All Lanes(pcuHr)		14			10			19	

Individual Junction Assessments

Traffic Impact Assessment 16 – 2039 DS1 With M62 Access Solution - excluding JPA1.2 scenario (SATURN Model Run 22.1)

Table TIA16.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road Right Left	73%	10	15.3	60%	12	12.2	65%	11	15.0
A58 Bridge Street (W) Ahead Right	145%	559	83.3	88%	62	12.0	97%	100	17.4
Pilsworth Road Right Left	145%	640	135	88%	40	18.8	97%	72	28.2
Pilsworth Road Right Left	73%	10	15.3	60%	12	12.2	65%	11	15.0
Total Delay Over All Lanes(pcuHr)		205			18			30	

Table TIA16.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Bridge Hall Lane - Signalised T-Junction									
Bridge Hall Lane Westbound, N/S Lane	7	23	0	9	21	0	7	14	0
Bridge Hall Lane Westbound, O/S Lane	25	25	1	31	23	2	13	14	1
Bridge Hall Lane Northbound	18	3	2	18	5	2	8	4	0
M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction									
M66 Southbound Off-Slip, N/S Lane	19	4	4	18	6	4	14	3	4
M66 Southbound Off-Slip, Middle Lane	7	3	1	6	5	1	7	3	1
M66 Southbound Off-Slip, O/S Lane	15	3	4	11	5	4	13	3	4
Bridge Hall Lane Westbound, N/S Lane	9	2	0	8	0	0	18	15	0
Bridge Hall Lane Westbound, O/S Lane	30	5	0	27	2	0	36	17	1
M66 Junction 2 Interchange									
M66 Southbound Off-Slip, N/S Lane	75	33	6	68	27	5	52	20	3
M66 Southbound Off-Slip, Middle Lane	26	19	2	31	17	2	33	16	2
M66 Southbound Off-Slip, O/S Lane	70	27	6	51	20	3	53	20	3
M66 Southbound Off-Slip, Circulating, N/S Lane	63	12	15	55	6	14	67	10	17
M66 Southbound Off-Slip, Circulating, Middle Lane	50	2	5	51	4	5	62	3	5
M66 Southbound Off-Slip, Circulating, O/S Lane	51	2	0	49	4	3	55	2	0
A58 Bury New Road, N/S Lane	120	473	134	77	31	7	108	243	67
A58 Bury New Road, Middle Lane	44	27	3	48	21	4	100	145	16
A58 Bury New Road, O/S Lane	36	26	3	33	19	2	29	25	2
A58 Bury New Road, Circulating, N/S Lane	66	11	12	66	7	12	78	8	13
A58 Bury New Road, Circulating, Middle Lane	77	13	11	74	7	13	82	12	13
A58 Bury New Road, Circulating, O/S Lane	26	1	7	18	3	5	30	27	5
M66 Northbound Off-Slip, N/S Lane	117	508	180	90	40	12	112	387	125
M66 Northbound Off-Slip, Middle Lane	99	80	21	94	49	15	97	70	18
M66 Northbound Off-Slip, O/S Lane	33	16	4	33	15	4	50	19	4
M66 Northbound Off-Slip, Circulating, N/S Lane	96	62	12	94	49	10	96	63	13
M66 Northbound Off-Slip, Circulating, Middle Lane	101	136	28	92	41	12	100	143	30
M66 Northbound Off-Slip, Circulating, O/S Lane	41	5	3	40	5	1	31	4	3
Waterfold, N/S Lane	16	25	2	20	25	2	19	25	2
Waterfold, O/S Lane	27	26	2	40	28	2	70	39	4
A58 Rochdale Road, N/S Lane	66	15	14	64	16	13	71	18	16
A58 Rochdale Road, Middle Lane	66	16	15	66	18	17	73	19	18
A58 Rochdale Road, O/S Lane	63	11	7	67	12	7	69	11	7
A58 Rochdale Road, Circulating, N/S Lane	0	0	0	1	2	0	2	1	0
A58 Rochdale Road, Circulating, Middle Lane	76	25	7	66	22	8	85	32	11
A58 Rochdale Road, Circulating, O/S Lane	4	0	0	6	3	0	16	2	0
A58 Rochdale Road/ B6621 Wash Lane									
A58 Rochdale Road Eastbound, N/S Lane	87	36	11	79	29	8	82	31	9

A58 Rochdale Road Eastbound, O/S Lane	66	21	6	68	22	7	82	29	9
B6221 Wash Lane, N/S Lane	59	15	6	51	13	5	58	14	6
B6221 Wash Lane, O/S Lane	55	13	6	47	11	5	54	12	6
A58 Rochdale Road Westbound, N/S Lane	47	1	0	47	1	0	50	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	37	1	0	39	1	0
A58 Rochdale Road Westbound, O/S Lane	69	15	6	65	17	7	72	18	7

Table TIA16.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	57%	20	7.4	46%	17	5.7	52%	18	7.0
Coronation Road Right Left	90%	60	11.2	69%	37	5.3	84%	47	8.0
Manchester Road (S) Ahead Right	91%	43	16.8	72%	23	10.5	86%	33	15.4
Total Delay Over All Lanes(pcuHr)		17			8			13	

Table TIA16.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.78	13	3.5	0.64	8	1.7	0.80	14	3.8
Hollins Lane	0.75	33	2.7	0.63	24	1.6	0.62	25	1.6
Hollins Brow	0.94	45	10.5	0.75	14	2.9	0.80	18	3.9
Avg. Jun. Delay (s/pcu)		29			13			17	

Table TIA16.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	100%	96	20.6	93%	53	14.4	102%	114	26.2
Manchester Road (S) Ahead	97%	50	24.8	83%	26	12.8	95%	46	21.9
Manchester Road (S) Right	70%	37	2.8	81%	45	4.3	54%	30	2.0
Manchester Road (N) Left Ahead	101%	82	35.6	93%	36	15.1	102%	99	44.2
Total Delay Over All Lanes(pcuHr)		58			28			67	

Table TIA16.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road	48%	17	4.9	58%	13	4.9	73%	17	10.1
A576 Middleton Road	85%	28	14.0	77%	17	8.9	86%	23	15.8
Kelvin Avenue Left	4%	16	0.2	5%	19	0.2	3%	23	0.1
A576 Manchester Old Road	85%	21	6.2	74%	15	3.7	88%	16	6.7
A6045 Heywood Old Road	84%	37	10.2	76%	31	4.3	88%	50	8.3
Total Delay Over All Lanes(pcuHr)		17			12			19	

Individual Junction Assessments

Traffic Impact Assessment 17 – 2039 DS3 Without M62 Access Solution excluding JPA1.2 (SATURN Model Run 22.2)

Table TIA17.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	15	10	3	19	12	3	24	14	3
M62 Westbound Offslip, O/S Lane	123	611	155	71	21	7	88	36	11
M62 Westbound Offslip, Circulating, N/S Lane	67	14	7	60	12	7	71	16	10
M62 Westbound Offslip, Circulating, O/S Lane	67	11	4	34	6	3	33	8	3
A6046 Middleton Road Northbound, N/S Lane	78	53	5	70	25	5	60	22	4
A6046 Middleton Road Northbound, O/S Lane	155	1168	194	79	30	7	89	44	11
A6046 Middleton Road Northbound, Circulating, N/S Lane	35	1	0	34	3	1	41	23	0
A6046 Middleton Road Northbound, Circulating, O/S Lane	100	114	57	80	23	12	89	24	20
M62 Eastbound Offslip, N/S Lane	39	21	3	44	21	3	71	34	5
M62 Eastbound Offslip, O/S Lane	18	18	3	22	18	3	51	26	3
M62 Eastbound Offslip, Circulating, N/S Lane	58	20	10	42	7	4	40	2	3
M62 Eastbound Offslip, Circulating, O/S Lane	48	7	3	55	8	4	88	25	13
Queen Elizabeth II Way, N/S Lane	87	50	8	72	30	5	72	28	6
Queen Elizabeth II Way, O/S Lane	95	74	12	75	31	6	59	23	4
Queen Elizabeth II Way, Circulating, N/S Lane	45	8	5	60	7	4	72	13	7
Queen Elizabeth II Way, Circulating, O/S Lane	21	2	3	20	2	1	36	10	4
A6046 Middleton Road Southbound, N/S Lane	69	21	7	69	19	6	66	18	7
A6046 Middleton Road Southbound, O/S Lane	62	18	6	33	12	3	35	13	3
A6046 Middleton Road Southbound, Circulating, N/S Lane	50	16	7	55	11	4	61	8	4
A6046 Middleton Road Southbound, Circulating, O/S Lane	79	27	11	72	13	5	90	35	14

TIA17.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	84%	36	14.7	71%	20	14.0	75%	20	15.9
Hareshill Road Right Ahead	84%	25	16.0	48%	10	6.2	67%	11	5.4
Pilsworth Road (n) Left Right	84%	31	12.3	71%	38	7.1	74%	41	7.0
Total Delay Over All Lanes(pcuHr)		20			11			12	

TIA17.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	74%	10	15.4	61%	12	13.2	65%	11	14.9
Pilsworth Road Right Left	154%	512	77.2	99%	110	20.5	98%	108	18.7
A58 Bridge Street (W) Ahead Right	158%	754	152.3	97%	73	27.5	96%	68	27.0
Total Delay Over All Lanes(pcuHr)		219			31			30	

TIA17.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.36	17	0.8	0.44	20	1.1	0.33	17	0.7
Heywood Dist. Park to Pilsworth Rd (W)	0.83	117	5.4	0.87	107	6.8	0.79	77	4.7
Heywood Distribution Park - RT	0.59	17	1.7	0.5	14	1.2	0.3	10	0.5
Avg. Jun. Delay (s/pcu)		12			17			11	

TIA17.9: Arrows (Pilsworth Road / Moss Hall Road - South)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0.60	4	1.5	0.39	3	0.6	0.39	3	0.6
Moss Hall Road (S)	0.39	4	0.6	0.55	5	1.2	0.71	8	2.4
New Link Road	0.59	4	1.4	0.43	3	0.7	0.37	3	0.6
Moss Hall Road (NW)	0.03	5	0.0	0.04	5	0.0	0.02	4	0.0
Avg. Jun. Delay (s/pcu)		4			4			5	

TIA17.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane traffic signals

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
	Bridge Hall Lane - Signalised T-Junction								
Bridge Hall Lane Westbound, N/S Lane	7	23	0	9	21	0	7	14	0
Bridge Hall Lane Westbound, O/S Lane	25	25	1	31	23	2	13	14	1
Bridge Hall Lane Northbound	18	2	2	18	5	2	8	4	0
	M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction								
M66 Southbound Off-Slip, N/S Lane	18	4	4	17	5	4	14	3	4
M66 Southbound Off-Slip, Middle Lane	7	3	1	6	5	1	8	3	4
M66 Southbound Off-Slip, O/S Lane	15	3	4	11	5	4	13	3	4
Bridge Hall Lane Westbound, N/S Lane	8	2	0	8	0	0	18	15	0
Bridge Hall Lane Westbound, O/S Lane	30	5	0	27	2	0	36	17	1
	M66 Junction 2 Interchange								
M66 Southbound Off-Slip, N/S Lane	73	31	4	63	25	3	51	20	3
M66 Southbound Off-Slip, Middle Lane	26	19	2	31	17	2	34	16	2
M66 Southbound Off-Slip, O/S Lane	70	28	6	50	20	3	53	20	3
M66 Southbound Off-Slip, Circulating, N/S Lane	58	13	15	55	6	14	62	9	15
M66 Southbound Off-Slip, Circulating, Middle Lane	55	2	5	53	4	5	62	3	5
M66 Southbound Off-Slip, Circulating, O/S Lane	55	2	0	51	4	3	55	2	0
A58 Bury New Road, N/S Lane	127	603	163	79	32	7	115	354	95
A58 Bury New Road, Middle Lane	38	26	3	46	21	3	100	158	15
A58 Bury New Road, O/S Lane	31	25	2	33	19	2	27	25	2
A58 Bury New Road, Circulating, N/S Lane	73	13	13	69	8	12	78	9	13
A58 Bury New Road, Circulating, Middle Lane	84	18	11	76	8	13	82	13	13
A58 Bury New Road, Circulating, O/S Lane	26	1	7	18	3	5	30	28	5
M66 Northbound Off-Slip, N/S Lane	114	414	144	91	42	13	110	352	120
M66 Northbound Off-Slip, Middle Lane	98	79	21	95	53	16	97	69	18
M66 Northbound Off-Slip, O/S Lane	40	17	4	36	15	4	42	17	4
M66 Northbound Off-Slip, Circulating, N/S Lane	98	75	14	91	39	7	96	64	12
M66 Northbound Off-Slip, Circulating, Middle Lane	96	70	15	89	34	11	100	153	30
M66 Northbound Off-Slip, Circulating, O/S Lane	36	5	3	40	5	1	31	4	3
Waterfold, N/S Lane	15	24	2	20	25	2	19	25	2
Waterfold, O/S Lane	29	26	2	39	28	2	69	39	4
A58 Rochdale Road, N/S Lane	73	16	14	66	16	13	71	17	16
A58 Rochdale Road, Middle Lane	74	19	18	70	19	18	74	19	18
A58 Rochdale Road, O/S Lane	68	11	7	69	12	7	69	11	7
A58 Rochdale Road, Circulating, N/S Lane	0	0	0	1	2	0	2	1	0
A58 Rochdale Road, Circulating, Middle Lane	79	28	8	68	23	8	77	27	9
A58 Rochdale Road, Circulating, O/S Lane	6	0	0	7	3	0	17	2	0
	A58 Rochdale Road/ B6621 Wash Lane								
A58 Rochdale Road Eastbound, N/S Lane	87	36	11	80	29	8	81	30	9
A58 Rochdale Road Eastbound, O/S Lane	67	21	7	69	22	7	81	28	9
B6221 Wash Lane, N/S Lane	60	15	6	52	13	5	58	14	6
B6221 Wash Lane, O/S Lane	55	13	6	48	11	5	53	12	6
A58 Rochdale Road Westbound, N/S Lane	47	1	0	47	1	0	51	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	37	1	0	39	1	0
A58 Rochdale Road Westbound, O/S Lane	69	16	6	65	18	7	72	19	7

TIA17.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	79%	50	16.9	36%	24	6.0	39%	23	7.8
Langley Lane Right Left	81%	47	16.5	60%	45	6.7	82%	68	11.6
Heywood Old Road Ahead Right	55%	38	8.8	60%	24	9.7	82%	33	22.2
A6045 exit	22%	1	0.1	28%	1	0.2	38%	2	0.3
Total Delay Over All Lanes(pcuHr)		18			10			17	

TIA17.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	60%	22	8.1	47%	17	5.7	53%	20	6.9
Coronation Road Right Left	90%	54	11.2	68%	34	5.5	89%	52	10.4
Manchester Road (S) Ahead Right	92%	48	17.8	69%	23	9.6	88%	37	15.3
Total Delay Over All Lanes(pcuHr)		18			8			15	

TIA17.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.77	13	3.3	0.64	8	1.7	0.81	15	4.2
Hollins Lane	0.75	33	2.8	0.63	24	1.6	0.62	25	1.5
Hollins Brow	0.93	43	9.8	0.70	12	2.3	0.72	12	2.5
Avg. Jun. Delay (s/pcu)		28			12			15	

TIA17.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	109%	230	43.4	90%	45	13.1	113%	289	58.3
Manchester Road (S) Ahead	85%	26	23.8	86%	29	14.0	81%	25	20.0
Manchester Road (S) Right	109%	269	15.2	85%	53	5.0	92%	108	6.1
Manchester Road (N) Left Ahead	109%	194	90.8	90%	33	13.6	114%	263	117.7
Total Delay Over All Lanes(pcuHr)		123			26			156	

TIA17.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road	48%	21	7.2	56%	13	4.8	68%	17	9.8
A576 Middleton Road Right	81%	30	17.7	75%	16	8.8	84%	23	16.4
Kelvin Avenue Left Right	4%	20	0.3	4%	19	0.2	3%	23	0.1
A576 Manchester Old Road	80%	28	12.7	74%	15	3.9	84%	19	8.8
A6045 Heywood Old Road	81%	40	12.4	76%	32	4.8	85%	46	8.9
Total Delay Over All Lanes(pcuHr)		20			12			19	

Individual Junction Assessments

Traffic Impact Assessment 18 – 2039 DS1 Without M62 Access Solution excluding JPA1.2 (SATURN Model Run 22.3)

Table TIA18.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	82	23	9	37	13	3	76	28	6
M62 Westbound Offslip, O/S Lane	45	11	3	22	12	3	33	18	3
M62 Westbound Offslip, Circulating, N/S Lane	69	21	7	54	14	4	47	9	7
M62 Westbound Offslip, Circulating, O/S Lane	67	24	10	33	4	3	28	7	3
A6046 Middleton Road Northbound, N/S Lane	70	28	5	42	13	3	60	22	5
A6046 Middleton Road Northbound, O/S Lane	66	27	5	38	13	3	63	23	5
A6046 Middleton Road Northbound, Circulating, N/S Lane	60	5	1	36	6	1	48	4	14
A6046 Middleton Road Northbound, Circulating, O/S Lane	64	20	19	58	20	7	49	13	7
M62 Eastbound Offslip, N/S Lane	58	28	4	48	24	3	70	33	5
M62 Eastbound Offslip, O/S Lane	34	23	3	24	20	3	43	24	3
M62 Eastbound Offslip, Circulating, N/S Lane	53	15	7	25	4	3	32	4	3
M62 Eastbound Offslip, Circulating, O/S Lane	81	24	11	42	8	5	76	18	8
Queen Elizabeth II Way, N/S Lane	31	19	3	26	16	3	58	24	4
Queen Elizabeth II Way, O/S Lane	53	23	4	40	17	3	46	20	4
Queen Elizabeth II Way, Circulating, N/S Lane	63	14	7	60	12	5	71	14	7
Queen Elizabeth II Way, Circulating, O/S Lane	20	3	3	16	7	3	23	7	3
A6046 Middleton Road Southbound, N/S Lane	82	33	8	59	17	5	56	15	5
A6046 Middleton Road Southbound, O/S Lane	76	27	8	32	12	3	33	11	3
A6046 Middleton Road Southbound, Circulating, N/S Lane	46	5	4	40	10	3	57	6	1
A6046 Middleton Road Southbound, Circulating, O/S Lane	51	7	7	50	10	7	71	18	9

TIA18.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A58 Bridge Street Left Ahead	68%	12	17.1	57%	12	10.6	62%	12	11.3
Pilsworth Road Right Left	96%	111	16.5	70%	44	7.8	81%	47	8.8
A58 Bridge Street (W) Ahead Right	96%	73	26.1	69%	24	12.1	81%	30	13.8
Total Delay Over All Lanes(pcuHr)		27			11			13	

TIA18.12: M66 J2 & A58 Rochdale Road / B6221 Wash Lane traffic signals

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Bridge Hall Lane - Signalised T-Junction									
Bridge Hall Lane Westbound, N/S Lane	7	24	0	7	20	0	10	20	1
Bridge Hall Lane Westbound, O/S Lane	24	25	1	24	22	1	19	21	1
Bridge Hall Lane Northbound	15	2	0	16	2	0	5	2	0
M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction									
M66 Southbound Off-Slip, N/S Lane	18	4	4	14	3	4	13	4	4
M66 Southbound Off-Slip, Middle Lane	7	3	1	5	3	0	7	3	1
M66 Southbound Off-Slip, O/S Lane	11	3	4	9	3	4	12	4	4
Bridge Hall Lane Westbound, N/S Lane	8	6	0	12	8	0	14	9	0
Bridge Hall Lane Westbound, O/S Lane	26	7	0	38	11	0	27	10	0
M66 Junction 2 Interchange									
M66 Southbound Off-Slip, N/S Lane	44	16	3	37	15	2	43	17	3
M66 Southbound Off-Slip, Middle Lane	21	12	2	17	10	2	26	14	2
M66 Southbound Off-Slip, O/S Lane	30	13	2	29	11	2	42	17	3

M66 Southbound Off-Slip, Circulating, N/S Lane	62	11	12	59	12	10	51	8	12
M66 Southbound Off-Slip, Circulating, Middle Lane	63	4	5	56	5	7	56	4	5
M66 Southbound Off-Slip, Circulating, O/S Lane	63	3	3	53	2	0	50	4	3
A58 Bury New Road, N/S Lane	74	26	7	61	23	5	69	24	6
A58 Bury New Road, Middle Lane	43	17	4	32	17	3	43	18	4
A58 Bury New Road, O/S Lane	38	17	3	27	17	2	28	16	2
A58 Bury New Road, Circulating, N/S Lane	75	6	13	62	4	12	73	13	13
A58 Bury New Road, Circulating, Middle Lane	91	24	16	68	8	10	78	13	13
A58 Bury New Road, Circulating, O/S Lane	19	26	3	18	18	3	20	8	5
M66 Northbound Off-Slip, N/S Lane	101	252	94	77	26	8	99	83	21
M66 Northbound Off-Slip, Middle Lane	100	109	28	82	27	10	98	70	19
M66 Northbound Off-Slip, O/S Lane	30	15	4	25	14	4	28	14	4
M66 Northbound Off-Slip, Circulating, N/S Lane	98	74	14	85	34	7	92	50	9
M66 Northbound Off-Slip, Circulating, Middle Lane	98	72	14	82	26	6	97	65	15
M66 Northbound Off-Slip, Circulating, O/S Lane	54	18	5	39	18	3	39	9	2
Waterfold, N/S Lane	11	24	0	14	24	0	14	24	0
Waterfold, O/S Lane	20	25	2	33	27	2	52	31	3
A58 Rochdale Road, N/S Lane	67	19	13	56	15	13	60	12	13
A58 Rochdale Road, Middle Lane	77	24	19	58	15	13	61	12	13
A58 Rochdale Road, O/S Lane	73	16	8	58	11	6	57	8	6
A58 Rochdale Road, Circulating, N/S Lane	0	26	0	1	26	0	1	3	0
A58 Rochdale Road, Circulating, Middle Lane	66	15	8	59	15	8	69	26	8
A58 Rochdale Road, Circulating, O/S Lane	3	26	0	6	26	2	14	3	0
	A58 Rochdale Road/ B6621 Wash Lane								
A58 Rochdale Road Eastbound, N/S Lane	85	36	9	76	30	7	80	32	8
A58 Rochdale Road Eastbound, O/S Lane	69	24	6	69	25	6	73	25	7
B6221 Wash Lane, N/S Lane	56	12	6	49	10	4	50	11	4
B6221 Wash Lane, O/S Lane	49	10	5	42	9	4	45	10	4
A58 Rochdale Road Westbound, N/S Lane	49	2	0	42	1	0	51	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	32	1	0	38	1	0
A58 Rochdale Road Westbound, O/S Lane	64	12	5	56	8	3	72	17	6

TIA18.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	96%	74	17.0	81%	32	11.0	90%	45	14.3
Manchester Road (S) Ahead	74%	20	11.9	73%	23	10.8	87%	31	15.6
Manchester Road (S) Right	55%	31	1.9	63%	32	2.9	62%	34	2.5
Manchester Road (N) Left Ahead	96%	46	20.0	81%	28	10.5	91%	35	14.5
Total Delay Over All Lanes(pcuHr)		31			18			26	

Individual Junction Assessments

Traffic Impact Assessment 19 – 2039 DS3 With M62 Access Solution - Policy On, South Heywood Open and Whittle Lane Closed (SATURN Model Run 25)

Table TIA19.1: M62 Junction 19

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
M62 Westbound Offslip, N/S Lane	42	15	4	23	14	3	50	18	4
M62 Westbound Offslip, O/S Lane	52	17	5	34	15	3	45	17	4
M62 Westbound Offslip, Circulating, N/S Lane	68	25	9	45	20	7	50	18	7
M62 Westbound Offslip, Circulating, O/S Lane	62	27	7	30	22	4	39	25	6
A6046 Middleton Road Northbound, N/S Lane	85	41	8	55	18	4	63	20	5
A6046 Middleton Road Northbound, O/S Lane	60	25	5	45	16	4	52	18	4
A6046 Middleton Road Northbound, Circulating, N/S Lane	75	12	10	35	6	1	52	8	2
A6046 Middleton Road Northbound, Circulating, O/S Lane	85	30	21	34	28	10	56	28	16
M62 Eastbound Offslip	20	0	1	17	0	0	22	0	1
Queen Elizabeth II Way, N/S Lane	49	21	4	27	16	3	40	18	3
Queen Elizabeth II Way, O/S Lane	55	22	4	20	15	3	34	17	3
Queen Elizabeth II Way, Circulating, N/S Lane	59	11	5	48	11	4	71	14	5
Queen Elizabeth II Way, Circulating, O/S Lane	13	6	1	21	5	1	15	6	1
A6046 Middleton Road Southbound, N/S Lane	74	26	8	66	20	5	69	21	6
A6046 Middleton Road Southbound, O/S Lane	71	23	7	31	14	3	46	15	4

Table TIA19.2: A6045 Manchester Road / Queen Elizabeth II Way (QEII Way)

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Queen Elizabeth II Way (W) Left Ahead	42%	35	3.7	27%	26	2.5	22%	30	1.8
Queen Elizabeth II Way (W) Ahead Right	49%	36	5.5	35%	37	2.1	34%	32	3.8
Queen Elizabeth II Way (E) Left Ahead	35%	35	2.6	24%	28	1.4	30%	32	2.7
Queen Elizabeth II Way (E) Right Ahead	39%	35	4.0	29%	28	2.9	43%	33	5.1
Manchester Road (N) Left Ahead Right	35%	18	4.3	28%	20	3.2	42%	22	5.7
Manchester Road (S) Ahead Right Left	50%	21	6.9	35%	22	3.9	36%	22	4.8
Total Delay Over All Lanes(pcuHr)		19			15			22	

Table TIA19.4: Hareshill Road / Hill Top Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Harehills Road North Ahead Left	54%	22	9.6	51%	23	5.8	58%	25	7.4
Internal - Northbound Ahead	46%	3	0.7	27%	3	0.5	36%	3	0.7
Internal - Northbound Right	10%	8	0.6	6%	4	0.1	4%	5	0.0
Internal - Southbound Ahead	26%	3	0.5	23%	3	0.6	32%	4	0.9
Internal - Southbound Right	43%	20	2.8	22%	7	0.8	22%	8	0.6
Harehills Road South Left	2%	4	0.2	1%	5	0.1	1%	5	0.1
Harehills Road South Ahead	54%	21	9.7	24%	18	2.5	34%	20	4.0
Hill Top Road Left Right	40%	37	1.7	41%	27	1.9	57%	34	3.2
Unnamed Road Left	53%	40	5.5	52%	32	4.3	58%	33	5.6
Unnamed Road Right	3%	32	0.3	1%	24	0.1	8%	24	0.6
Total Delay Over All Lanes(pcuHr)		9			8			9	

Table TIA19.5: Hareshill Road / Pilsworth Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road (s) Left Ahead	56%	18	6.7	42%	12	6.4	61%	17	10.1
Hareshill Road Right Ahead	48%	10	5.1	26%	6	2.2	60%	12	3.6
Pilsworth Road (n) Left Right	56%	20	5.5	42%	30	4.3	35%	25	3.6
Total Delay Over All Lanes(pcuHr)		8			5			7	

Table TIA19.6: Pilsworth Road / A58 Bury St

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Pilsworth Road Right Left	71%	11	14.6	57%	11	10.1	64%	12	12.3
A58 Bridge Street (W) Ahead Right	112%	278	36.2	76%	46	8.2	82%	50	9.6
Pilsworth Road Right Left	114%	287	58.5	75%	26	12.8	81%	32	15.2
A58 Bridge Street (W) Ahead Right		84			11			15	

Table TIA19.7: Pilsworth Road / Heywood Distribution Centre

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Heywood Dist. Park to Pilsworth Rd (E)	0.15	7	0.2	0.21	7	0.3	0.19	8	0.2
Heywood Dist. Park to Pilsworth Rd (W)	0.25	13	0.3	0.31	12	0.4	0.38	14	0.6
Heywood Distribution Park - RT	0.35	8	0.5	0.25	7	0.3	0.16	6	0.2
Avg. Jun. Delay (s/pcu)		2			3			3	

Table TIA19.8: Pilsworth Road / JPA1.1 & SHDA employment

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Plot 3 (SHEA) to Pilsworth Road (W)	0.00	0	0.0	0.00	0	0.0	0.00	0	0.0
Plot 3 (SHEA) to Pilsworth Road (E)	0.00	0	0.0	0.00	0	0.0	0.00	0	0.0
Plot 3 (SHEA) RT	0.00	0	0.0	0.00	0	0.0	0.00	5	0.0
Avg. Jun. Delay (s/pcu)		0			0			0	

Table TIA19.9: Pilsworth Road / Moss Hall Road – South (3 Arrows)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0	0	0.0	0	0	0.0	0	0	0.0
Moss Hall Road (S)	0	0	0.0	0	0	0.0	0	0	0.0
Moss Hall Road (N)	0	0	0.0	0	0	0.0	0	0	0.0
Avg. Jun. Delay (s/pcu)		0			0			0	

Table TIA19.10: Pilsworth Road / Moss Hall Road – North (Fowler Welch)

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Pilsworth Road	0.35	3	0.5	0.16	2	0.2	0.21	2	0.3
Moss Hall Road (S)	0.25	3	0.3	0.38	3	0.6	0.52	4	1.1
New Link Road	0.65	4	1.9	0.39	3	0.6	0.39	3	0.6
Moss Hall Road (NW)	0.03	5	0.0	0.03	4	0.0	0.02	4	0.0
Avg. Jun. Delay (s/pcu)		4			3			3	

Table TIA19.12: M66 J2

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Bridge Hall Lane - Signalised T-Junction									
Bridge Hall Lane Westbound, N/S Lane	7	23	0	8	21	0	6	14	0
Bridge Hall Lane Westbound, O/S Lane	22	24	1	27	23	2	11	14	1
Bridge Hall Lane Northbound	16	2	2	16	4	2	7	4	0
M66 Southbound Off-Slip/ Bridge Hall Lane - Signalised T-Junction									
M66 Southbound Off-Slip, N/S Lane	19	4	4	17	5	4	13	3	4
M66 Southbound Off-Slip, Middle Lane	6	3	0	6	5	0	6	3	0
M66 Southbound Off-Slip, O/S Lane	13	3	4	11	5	4	11	3	4
Bridge Hall Lane Westbound, N/S Lane	9	3	0	8	0	0	17	15	0
Bridge Hall Lane Westbound, O/S Lane	27	4	0	24	1	0	31	16	0
M66 Junction 2 Interchange									
M66 Southbound Off-Slip, N/S Lane	75	33	6	63	25	5	49	20	3
M66 Southbound Off-Slip, Middle Lane	22	18	2	28	17	2	29	15	2
M66 Southbound Off-Slip, O/S Lane	58	23	3	47	20	3	45	19	3
M66 Southbound Off-Slip, Circulating, N/S Lane	63	10	15	48	6	8	50	6	10
M66 Southbound Off-Slip, Circulating, Middle Lane	48	2	5	47	4	3	53	3	5
M66 Southbound Off-Slip, Circulating, O/S Lane	48	2	0	44	4	3	48	2	0
A58 Bury New Road, N/S Lane	103	187	53	67	26	6	94	58	14
A58 Bury New Road, Middle Lane	44	27	3	45	21	3	58	23	4
A58 Bury New Road, O/S Lane	44	27	3	32	19	2	34	19	3
A58 Bury New Road, Circulating, N/S Lane	64	11	10	60	6	12	67	5	12
A58 Bury New Road, Circulating, Middle Lane	72	12	8	66	5	10	70	7	10
A58 Bury New Road, Circulating, O/S Lane	21	1	5	17	2	5	17	18	3
M66 Northbound Off-Slip, N/S Lane	105	258	98	82	31	9	102	242	80
M66 Northbound Off-Slip, Middle Lane	100	109	28	88	34	11	99	82	21
M66 Northbound Off-Slip, O/S Lane	24	14	4	23	14	4	28	15	4
M66 Northbound Off-Slip, Circulating, N/S Lane	93	52	10	83	25	5	98	72	14
M66 Northbound Off-Slip, Circulating, Middle Lane	99	88	17	86	28	10	94	58	15
M66 Northbound Off-Slip, Circulating, O/S Lane	52	8	5	38	5	0	38	5	3
Waterfold, N/S Lane	11	24	0	14	24	0	14	24	0
Waterfold, O/S Lane	20	25	2	33	27	2	53	31	3
A58 Rochdale Road, N/S Lane	68	16	15	58	15	13	62	15	14
A58 Rochdale Road, Middle Lane	64	16	14	59	16	14	62	15	14
A58 Rochdale Road, O/S Lane	60	11	6	61	12	6	60	10	7
A58 Rochdale Road, Circulating, N/S Lane	0	0	0	1	2	0	1	1	0
A58 Rochdale Road, Circulating, Middle Lane	72	26	6	54	21	7	66	26	8
A58 Rochdale Road, Circulating, O/S Lane	4	0	0	6	3	0	13	2	0
A58 Rochdale Road/ B6621 Wash Lane									
A58 Rochdale Road Eastbound, N/S Lane	78	27	9	65	22	6	71	24	7
A58 Rochdale Road Eastbound, O/S Lane	65	20	6	59	20	6	69	22	7
B6221 Wash Lane, N/S Lane	60	16	6	51	13	5	53	13	5
B6221 Wash Lane, O/S Lane	56	13	6	47	11	5	49	12	5
A58 Rochdale Road Westbound, N/S Lane	48	2	0	44	1	0	52	2	0
A58 Rochdale Road Westbound, Middle Lane	39	1	0	34	1	0	39	1	0
A58 Rochdale Road Westbound, O/S Lane	71	16	6	63	17	6	76	22	8

Table TIA19.14: A6045 Heywood Old Road / Langley Lane

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A6045 (N) Left Ahead	40%	29	6.2	35%	23	4.4	41%	21	7.0
Langley Lane Right Left	51%	36	6.6	42%	37	3.3	61%	52	5.4
Heywood Old Road Ahead Right	51%	27	7.4	42%	18	5.4	61%	20	10.1
A6045 exit	26%	1	0.2	20%	1	0.1	31%	1	0.2
Total Delay Over All Lanes(pcuHr)		9			6			9	

Table TIA19.15: Langley Lane / A6046 Hollin Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Langley Lane to A6046 (N)	0.15	12	0.2	0.04	9	0.0	0.03	9	0.0
Langley Lane to A6046 (S)	0.51	25	1.0	0.16	14	0.2	0.21	18	0.3
A6046 (N) to Langley Lane	0.01	6	0.0	0.02	6	0.0	0.08	7	0.1
Avg. Jun. Delay (s/pcu)		3			1			1	

Table TIA19.16: A6045 Manchester Road / Coronation Avenue

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Manchester Road (N) Left Ahead	56%	21	8.0	33%	13	4.4	36%	15	4.4
Coronation Road Right Left	74%	39	8.5	55%	38	2.9	72%	39	5.6
Manchester Road (S) Ahead Right	75%	32	11.0	56%	17	8.5	71%	22	10.4
Total Delay Over All Lanes(pcuHr)		11			5			8	

Table TIA19.17: Hollins Brow / Hollins Lane

Approach	AM Peak			Inter-peak			PM peak		
	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)	Max RFC	Avg. Delay (s/pcu)	Max Queue (PCU)
Croft Lane	0.73	11	2.7	0.59	7	1.4	0.75	12	3.0
Hollins Lane	0.67	24	2.0	0.49	17	1.0	0.49	18	0.9
Hollins Brow	0.86	25	5.5	0.62	9	1.6	0.69	11	2.2
Avg. Jun. Delay (s/pcu)		19			9			12	

Table TIA19.18: Hollins Brow / A56 Manchester Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
Hollins Brow Left Right	99%	89	18.8	84%	35	11.0	91%	46	14.5
Manchester Road (S) Ahead	75%	19	11.1	75%	22	10.4	87%	31	15.7
Manchester Road (S) Right	53%	28	1.9	64%	32	2.7	59%	33	2.3
Manchester Road (N) Left Ahead	99%	62	26.0	84%	29	11.3	91%	36	14.8
Total Delay Over All Lanes(pcuHr)		39			19			27	

Table TIA19.22: A576 Middleton Road / A6045 Heywood Old Road

Approach	AM Peak			Inter-peak			PM peak		
	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)	DoS (%)	Average Delay (s/pcu)	MMQ (pcu)
A576 Middleton Road	34%	18	3.5	53%	14	5.4	86%	24	14.5
A576 Middleton Road	81%	30	12.8	63%	15	8.0	69%	15	10.1
Kelvin Avenue	3%	15	0.2	3%	19	0.1	3%	23	0.1
A576 Manchester Old Road	68%	22	5.6	64%	16	3.7	100%	18	4.6
A6045 Heywood Old Road	81%	33	10.9	64%	26	4.7	84%	43	7.2
Total Delay Over All Lanes(pcuHr)		16			10			17	