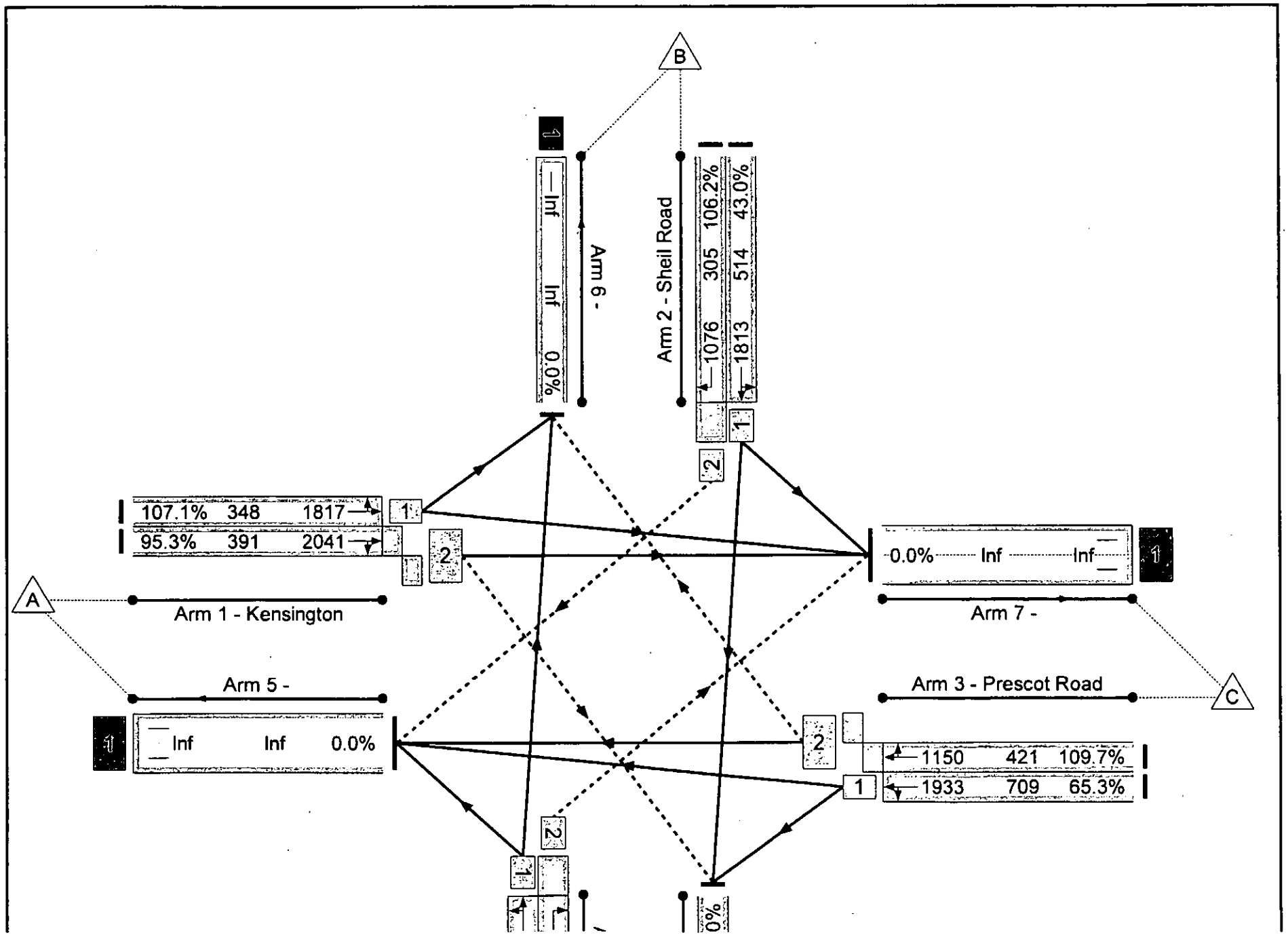

B
Arm 6 -
Inf
Inf
0.0%
Arm 2 - Shell Road
1076
305
106.2%
1813
514
43.0%
107.1%
348
1817
95.3%
391
2041
0.0%
Inf
Inf
A
Arm 1 - Kensington
Arm 7 -
Arm 5 -
Arm 3 - Prescot Road
C
Inf
Inf
0.0%
1150
421
109.7%
1933
709
65.3%

Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington Left Ahead	U	N/A	N/A	A		1	22	-	373	1817	1817	348	107.1
1/2	Kensington Ahead Right	O	N/A	N/A	A		1	22	-	373	2064	2041	391	95.3
2/1	Shell Road Left Ahead	U	N/A	N/A	D		1	33	-	221	1813	1813	514	43.0
2/2	Shell Road Right	O	N/A	N/A	D	E	1	33	19	324	1912	1076	305	106.2
3/1	Prescot Road Ahead Left	U	N/A	N/A	B		1	43	-	463	1933	1933	709	65.3
3/2	Prescot Road Ahead Right	O	N/A	N/A	B	C	1	43	17	463	2000	1150	421	109.7
4/1	Beech Street Left Ahead	U	N/A	N/A	F		1	10	-	179	1832	1832	168	106.6
4/2	Beech Street Right	O	N/A	N/A	F		1	10	-	27	1787	1601	147	18.4
5/1		U	N/A	N/A	-		-	-	-	1186	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A			-	-		476	Inf	Inf	Inf	0.0
7/1		U	N/A	N/A	-		-	-	-	582	Inf	Inf	Inf	0.0
8/1		U	N/A	N/A			-	-		178	Inf	Inf	Inf	0.0

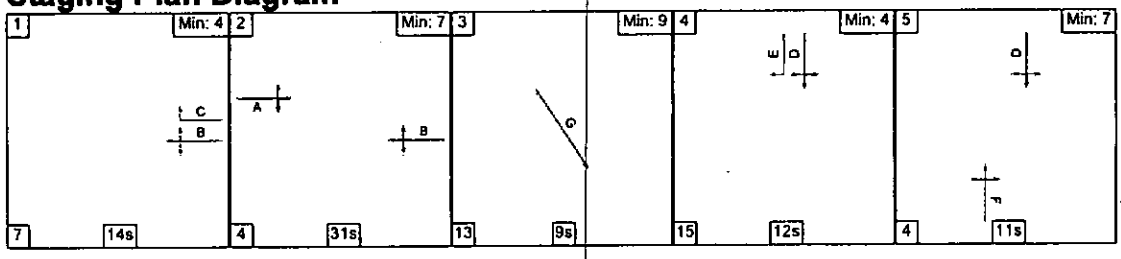
Full Input Data And Results

Link Num	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
1/1	373	348	-	-	-	6.4	17.7	-	24.0	232.1	13.3	17.7	30.9	
1/2	373	373	25	0	0	5.0	6.1	0.0	11.1	107.2	12.2	6.1	18.3	
2/1	221	221	-	-	-	2.2	0.4	-	2.5	41.2	6.0	0.4	6.3	
2/2	324	305	0	245	60	4.7	14.9	0.4	20.0	222.5	11.8	14.9	26.7	
3/1	463	463	-	-	-	4.1	0.9	-	5.0	38.9	12.7	0.9	13.7	
3/2	463	421	0	78	38	6.3	25.1	0.3	31.6	246.2	16.8	25.1	41.9	
4/1	179	168	-	-	-	3.5	10.0	-	13.5	270.8	6.6	10.0	16.6	
4/2	27	27	27	0	0	0.4	0.1	0.0	0.5	65.7	0.8	0.1	0.9	
5/1	1133	1133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	442	442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	574	574	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	178	178	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

PRC for Signalled Links (%): -21.9 Total Delay for Signalled Links (pcuHr): 108.28
PRC Over All Links (%): -21.9 Total Delay Over All Links(pcuHr): 108.28 Cycle Time (s): 120

Scenario 4: '2011 PM ASS'
Staging Plan 1: 'Staging Plan No. 1'
Flow Group 6: '2011 PM Peak ASSESSMENT'

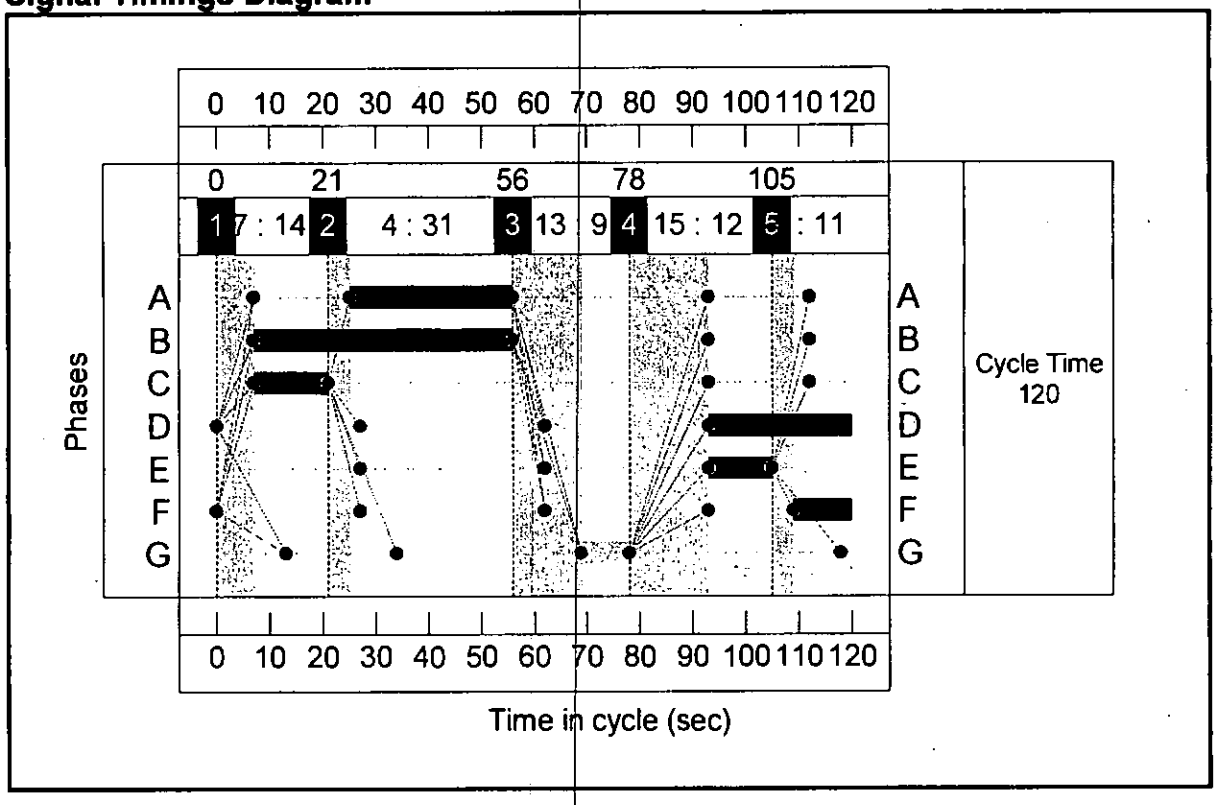
Staging Plan Diagram



Stage Timings

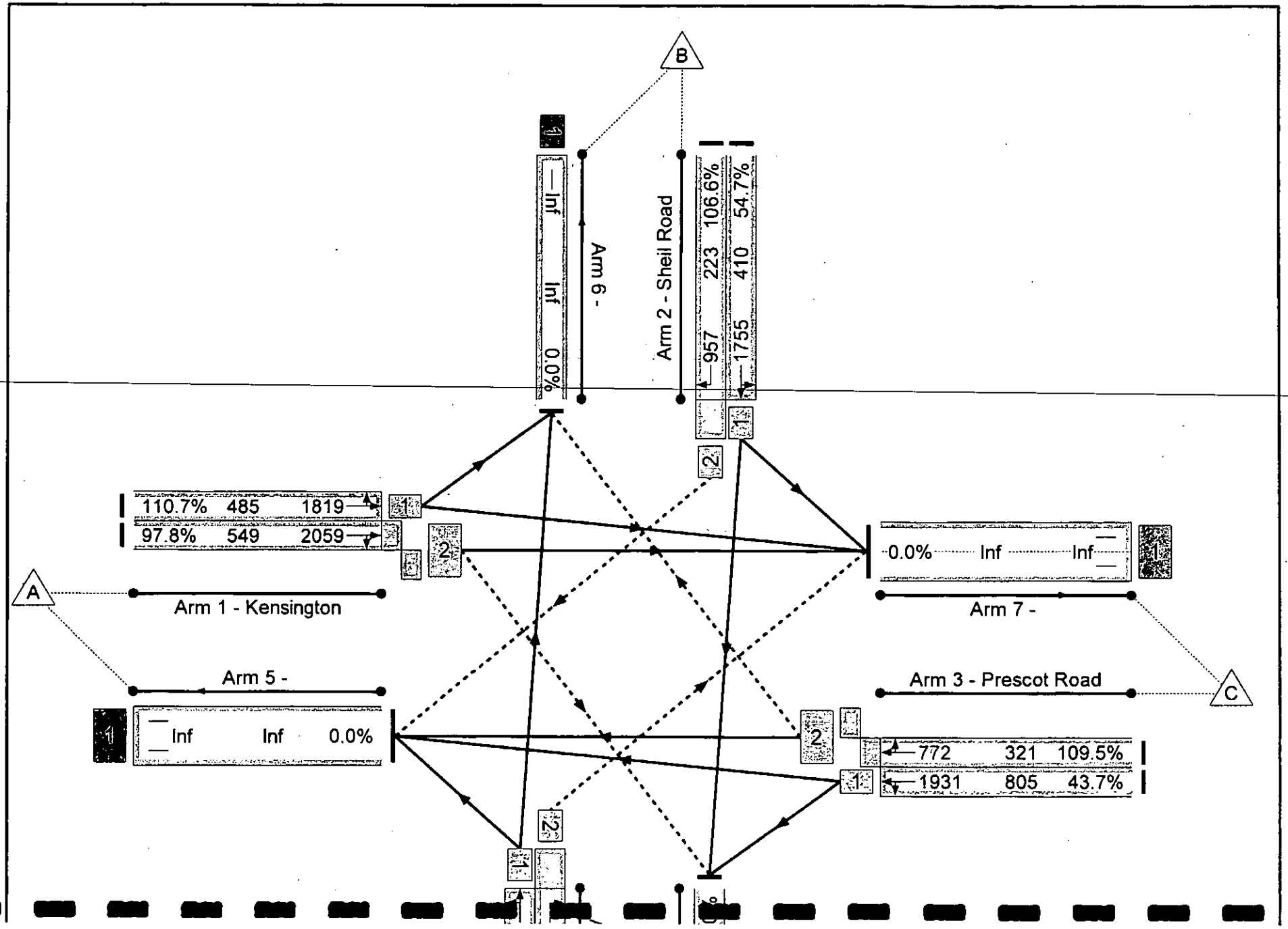
Stage	1	2	3	4	5
Duration	14	31	9	12	11
Change Point	0	21	56	78	105

Signal Timings Diagram



Junction Layout Diagram

Full Input Data And Results



Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington Left Ahead	U	N/A	N/A	A		1	31	-	537	1819	1819	485	110.7
1/2	Kensington Ahead Right	O	N/A	N/A	A		1	31	-	537	2066	2059	549	97.8
2/1	Sheil Road Left Ahead	U	N/A	N/A	D		1	27	-	224	1755	1755	410	54.7
2/2	Sheil Road Right	O	N/A	N/A	D	E	1	27	12	238	1912	957	223	106.6
3/1	Prescot Road Ahead Left	U	N/A	N/A	B		1	49	-	352	1931	1931	805	43.7
3/2	Prescot Road Ahead Right	O	N/A	N/A	B	C	1	49	14	352	1969	772	321	109.5
4/1	Beech Street Left Ahead	U	N/A	N/A	F		1	11	-	202	1880	1880	188	107.4
4/2	Beech Street Right	O	N/A	N/A	F		1	11	-	52	1787	1561	156	33.3
5/1		U	N/A	N/A	-		-	-	-	812	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A	-		-	-	-	666	Inf	Inf	Inf	0.0
7/1		U	N/A	N/A	-		-	-	-	878	Inf	Inf	Inf	0.0
8/1		U	N/A	N/A			-	-	-	138	Inf	Inf	Inf	0.0

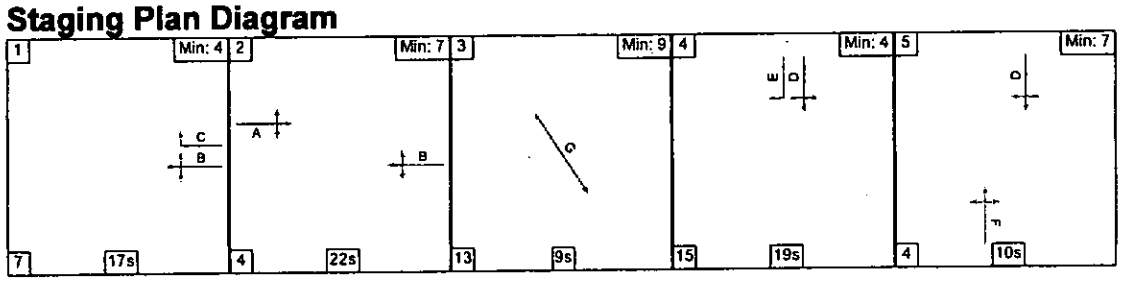
Full Input Data And Results

Link Num	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
1/1	537	485	-	-	-	9.4	30.4	-	39.8	266.8	19.6	30.4	50.0	
1/2	537	537	31	0	1	6.5	9.0	0.0	15.5	103.8	17.8	9.0	26.7	
2/1	224	224	-	-	-	2.5	0.6	-	3.1	50.1	6.5	0.6	7.1	
2/2	238	223	0	163	60	3.7	12.2	0.4	16.2	245.5	8.7	12.2	20.9	
3/1	352	352	-	-	-	2.4	0.4	-	2.8	28.9	8.3	0.4	8.7	
3/2	352	321	0	98	43	3.9	19.7	0.4	24.1	246.4	9.9	19.7	29.6	
4/1	202	188	-	-	-	4.0	11.4	-	15.4	274.4	7.5	11.4	18.9	
4/2	52	52	52	0	0	0.7	0.2	0.0	1.0	68.1	1.6	0.2	1.9	
5/1	778	778	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	859	859	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	138	138	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

PRC for Signalled Links (%): -23.0 Total Delay for Signalled Links (pcuHr): 117.94
PRC Over All Links (%): -23.0 Total Delay Over All Links(pcuHr): 117.94 Cycle Time (s): 120

Scenario 5: '2016 AM BASE'
Staging Plan 1: 'Staging Plan No. 1'
Flow Group 3: '2016 AM Peak BASE'

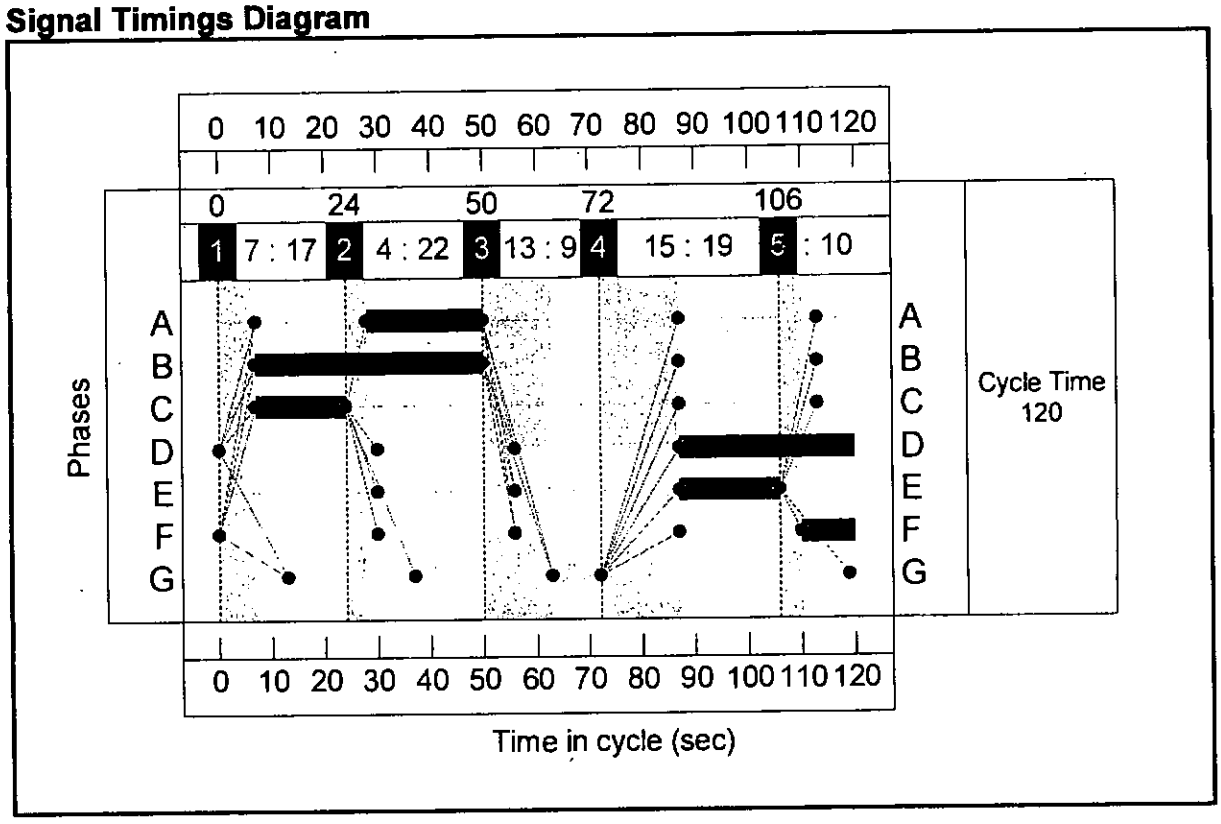
Staging Plan Diagram



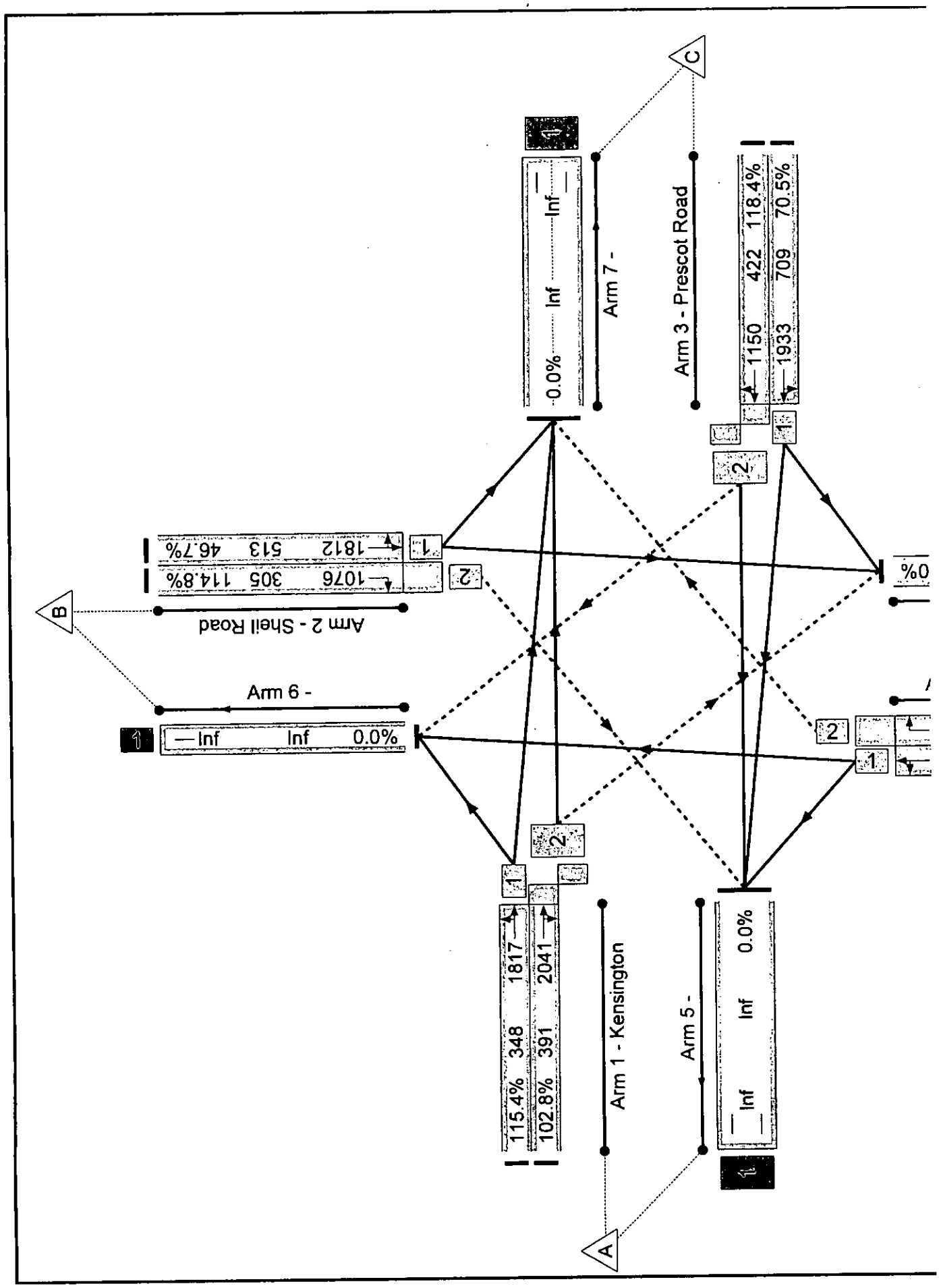
Stage Timings

Stage	1	2	3	4	5
Duration	17	22	9	19	10
Change Point	0	24	50	72	106

Signal Timings Diagram



Junction Layout Diagram


A
B
C
Arm 1 - Kensington
Arm 2 - Shell Road
Arm 3 - Prescot Road
Arm 5 -
Arm 6 -
Arm 7 -
115.4% 348 1817
102.8% 391 2041
1076 305 114.8%
1812 513 46.7%
1150 422 118.4%
1933 709 70.5%
Inf Inf 0.0%
Inf Inf 0.0%
Inf Inf
Inf Inf

Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington Left Ahead	U	N/A	N/A	A		1	22	-	402	1817	1817	348	115.4
1/2	Kensington Ahead Right	O	N/A	N/A	A		1	22	-	402	2064	2041	391	102.8
2/1	Sheil Road Left Ahead	U	N/A	N/A	D		1	33	-	240	1812	1812	513	46.7
2/2	Sheil Road Right	O	N/A	N/A	D	E	1	33	19	350	1912	1076	305	114.8
3/1	Prescot Road Ahead Left	U	N/A	N/A	B		1	43	-	500	1933	1933	709	70.5
3/2	Prescot Road Ahead Right	O	N/A	N/A	B	C	1	43	17	500	2000	1150	422	118.4
4/1	Beech Street Left Ahead	U	N/A	N/A	F		1	10	-	193	1832	1832	168	114.9
4/2	Beech Street Right	O	N/A	N/A	F		1	10	-	29	1787	1584	145	20.0
5/1		U	N/A	N/A	-		-	-	-	1281	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A			-	-	-	513	Inf	Inf	Inf	0.0
7/1		U	N/A	N/A	-		-	-	-	628	Inf	Inf	Inf	0.0
8/1		U	N/A	N/A			-	-	-	193	Inf	Inf	Inf	0.0

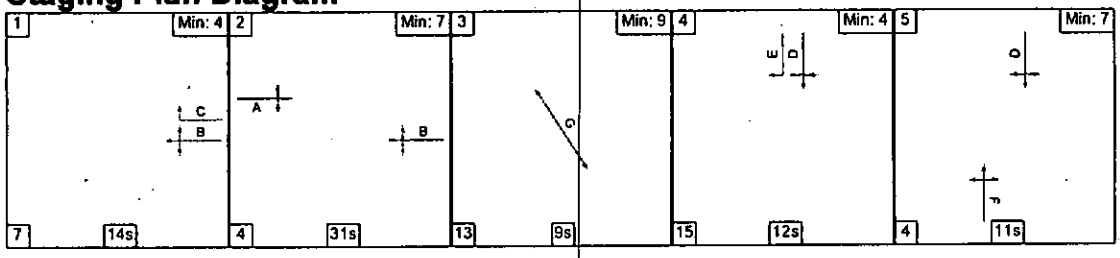
Full Input Data And Results

Link Num	Entering (pcu)	Leaving (pcu)	Turners in Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
1/1	402	348	-	-	-	8.4	30.2	-	38.6	345.5	15.2	30.2	45.4	
1/2	402	391	25	0	2	6.0	13.1	0.0	19.1	171.1	13.8	13.1	26.8	
2/1	240	240	-	-	-	2.4	0.4	-	2.8	42.1	6.6	0.4	7.0	
2/2	350	305	0	245	60	6.8	25.9	0.4	33.1	340.7	14.4	25.9	40.3	
3/1	500	500	-	-	-	4.5	1.2	-	5.7	41.0	14.2	1.2	15.3	
3/2	500	422	0	78	38	8.8	41.9	0.3	50.9	366.9	19.2	41.9	61.1	
4/1	193	168	-	-	-	4.6	15.6	-	20.2	377.5	7.9	15.6	23.6	
4/2	29	29	29	0	0	0.4	0.1	0.0	0.5	66.3	0.9	0.1	1.0	
5/1	1169	1169	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	442	442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	599	599	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	192	192	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

PRC for Signalled Links (%): -31.6 Total Delay for Signalled Links (pcuHr): 170.99
PRC Over All Links (%): -31.6 Total Delay Over All Links(pcuHr): 170.99 Cycle Time (s): 120

Scenario 6: '2016 PM BASE'
Staging Plan 1: 'Staging Plan No. 1'
Flow Group 4: '2016 PM Peak BASE'

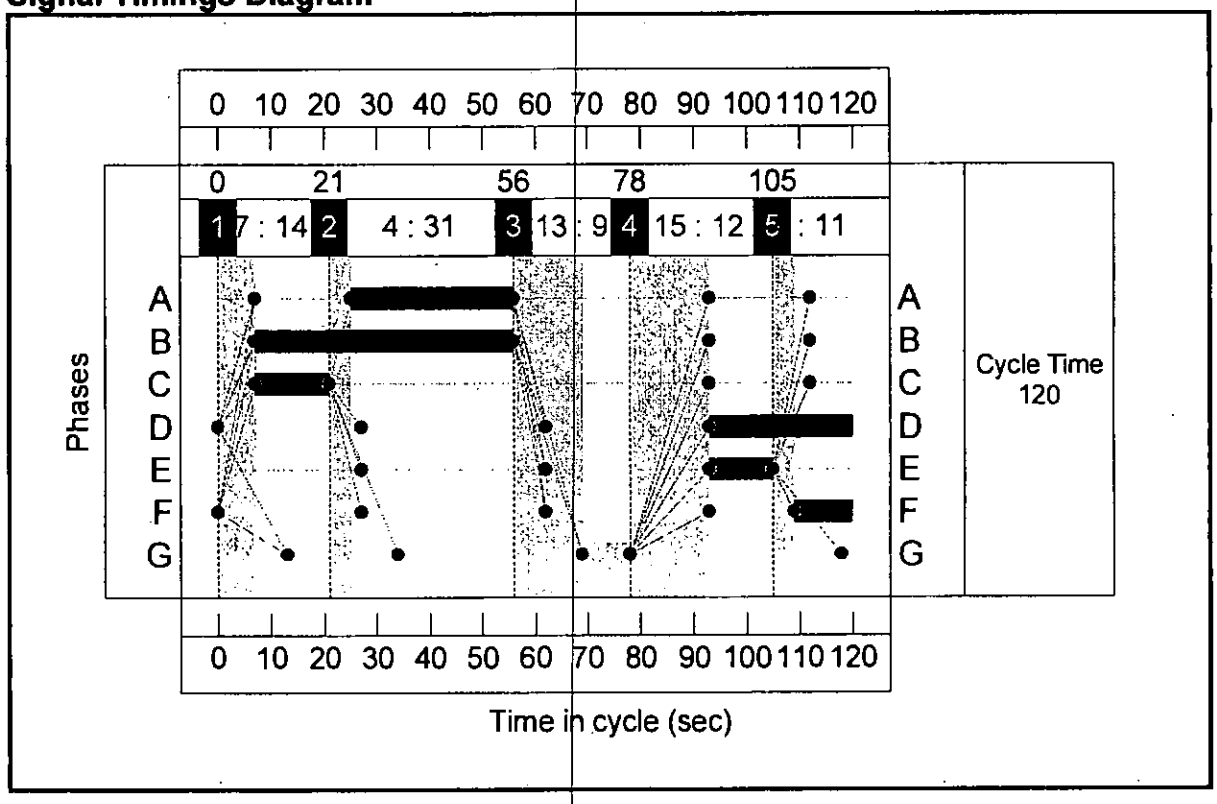
Staging Plan Diagram



Stage Timings

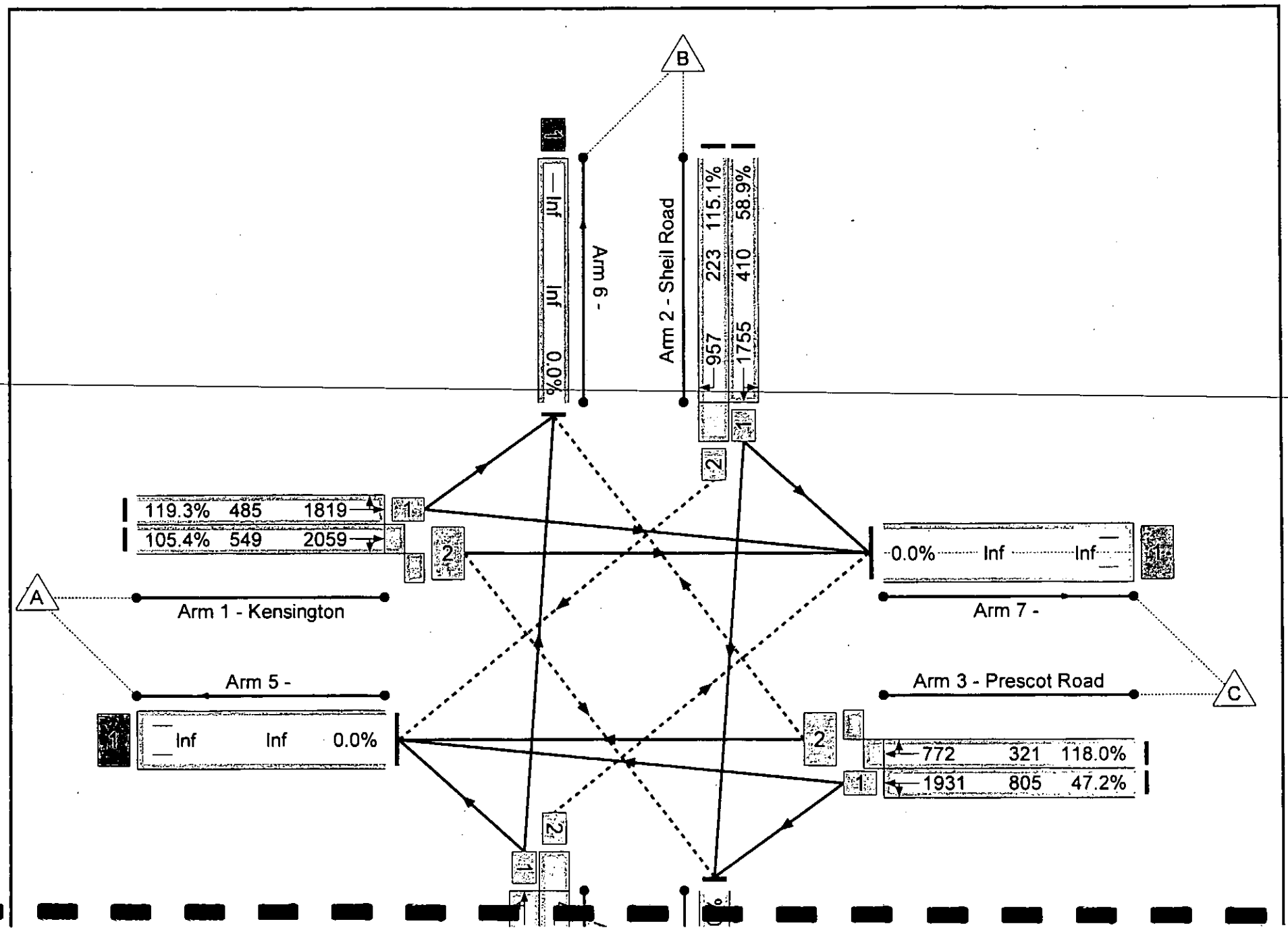
Stage	1	2	3	4	5
Duration	14	31	9	12	11
Change Point	0	21	56	78	105

Signal Timings Diagram



Junction Layout Diagram

Full Input Data And Results



Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington Left Ahead	U	N/A	N/A	A		1	31	-	579	1819	1819	485	119.3
1/2	Kensington Ahead Right	O	N/A	N/A	A		1	31	-	579	2066	2059	549	105.4
2/1	Sheil Road Left Ahead	U	N/A	N/A	D		1	27	-	241	1755	1755	410	58.9
2/2	Sheil Road Right	O	N/A	N/A	D	E	1	27	12	257	1912	957	223	115.1
3/1	Prescot Road Ahead Left	U	N/A	N/A	B		1	49	-	380	1931	1931	805	47.2
3/2	Prescot Road Ahead Right	O	N/A	N/A	B	C	1	49	14	380	1969	772	321	118.0
4/1	Beech Street Left Ahead	U	N/A	N/A	F		1	11	-	218	1880	1880	188	116.0
4/2	Beech Street Right	O	N/A	N/A	F		1	11	-	56	1787	1545	155	36.2
5/1		U	N/A	N/A	-		-	-	-	876	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A	-		-	-	-	718	Inf	Inf	Inf	0.0
7/1		U	N/A	N/A	-		-	-	-	946	Inf	Inf	Inf	0.0
8/1		U	N/A	N/A	-		-	-	-	148	Inf	Inf	Inf	0.0

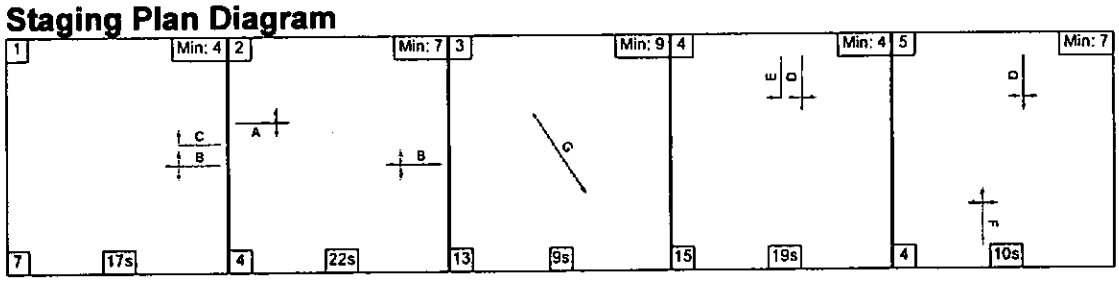
Full Input Data And Results

Link Num	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
1/1	578	485	-	-	-	12.2	49.6	-	61.8	384.7	22.4	49.6	72.0
1/2	578	549	31	0	2	8.7	21.4	0.0	30.1	187.5	20.3	21.4	41.7
2/1	241	241	-	-	-	2.7	0.7	-	3.4	51.5	7.1	0.7	7.8
2/2	257	223	0	163	60	5.2	20.0	0.4	25.6	359.1	10.6	20.0	30.6
3/1	379	379	-	-	-	2.7	0.4	-	3.1	29.6	9.2	0.4	9.6
3/2	380	321	0	98	43	6.0	32.0	0.4	38.4	364.5	14.9	32.0	46.9
4/1	218	188	-	-	-	5.3	18.0	-	23.3	385.1	9.1	18.0	27.1
4/2	56	56	56	0	0	0.8	0.3	0.0	1.1	69.3	1.7	0.3	2.0
5/1	804	804	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	885	885	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	146	146	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

PRC for Signalled Links (%): -32.5 Total Delay for Signalled Links (pcuHr): 186.99
PRC Over All Links (%): -32.5 Total Delay Over All Links(pcuHr): 186.99 Cycle Time (s): 120

Scenario 7: '2016 AM ASS'
Staging Plan 1: 'Staging Plan No. 1'
Flow Group 7: '2016 AM Peak ASSESSMENT'

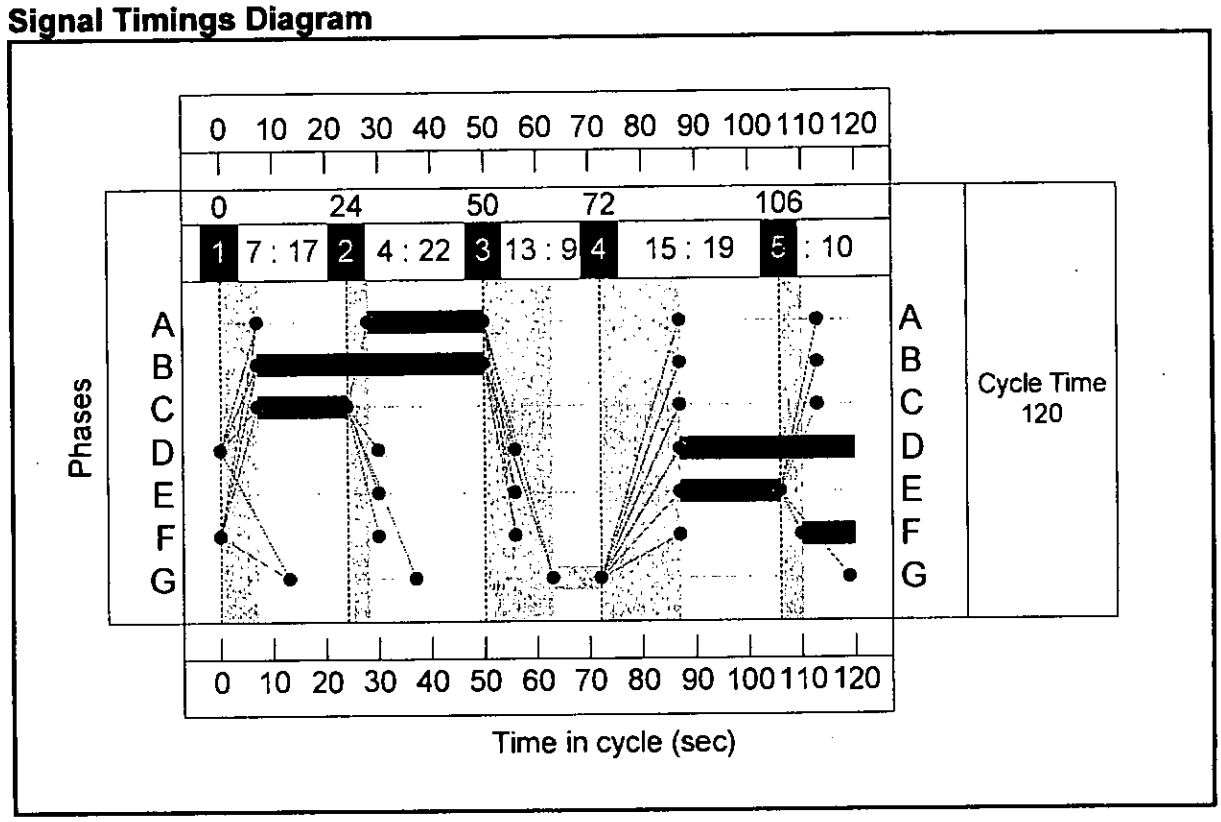
Staging Plan Diagram



Stage Timings

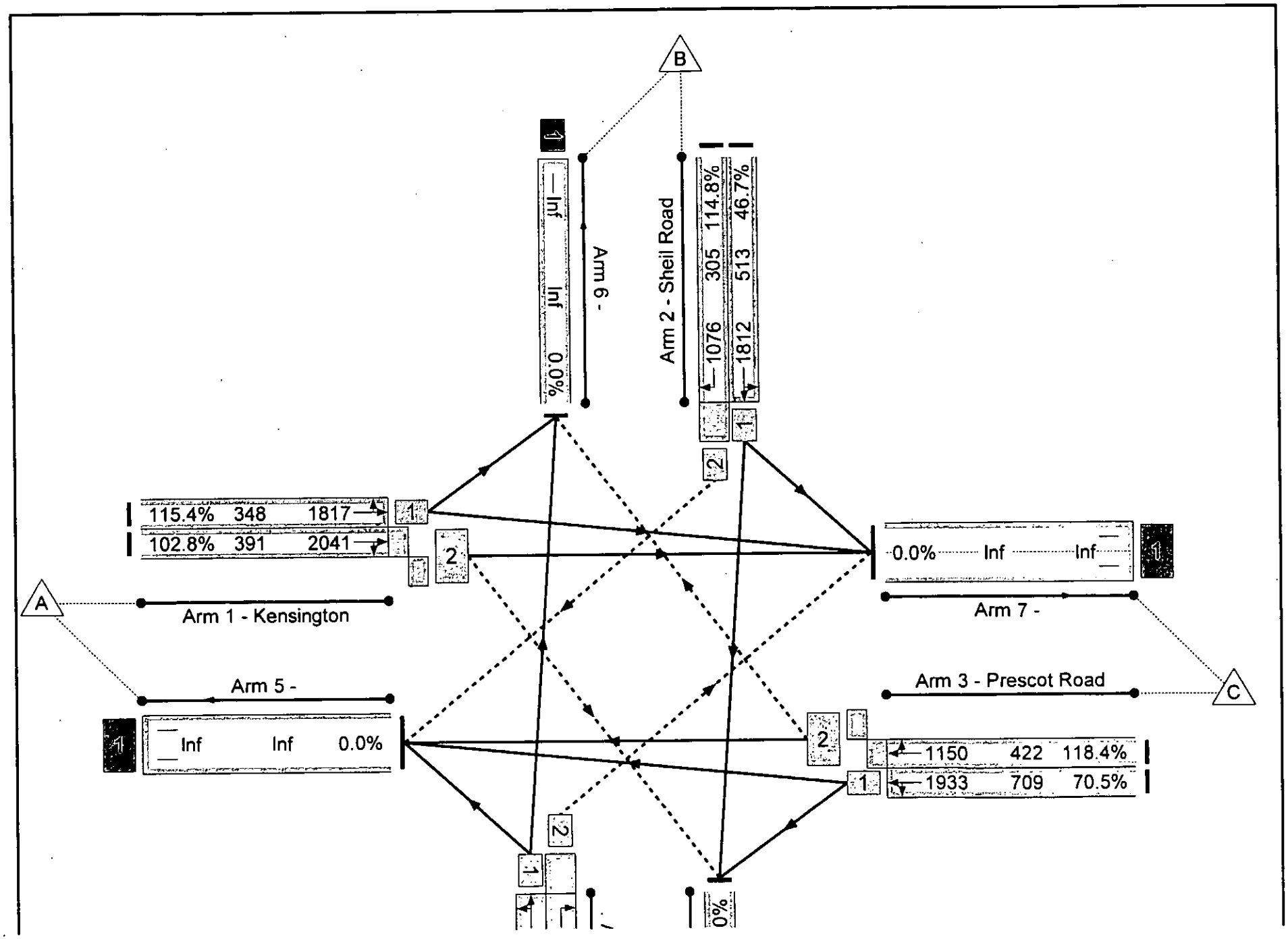
Stage	1	2	3	4	5
Duration	17	22	9	19	10
Change Point	0	24	50	72	106

Signal Timings Diagram



Junction Layout Diagram

Full Input Data And Results



Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington Left Ahead	U	N/A	N/A	A		1	22	-	402	1817	1817	348	115.4
1/2	Kensington Ahead Right	O	N/A	N/A	A		1	22	-	402	2064	2041	391	102.8
2/1	Sheil Road Left Ahead	U	N/A	N/A	D		1	33	-	240	1812	1812	513	46.7
2/2	Sheil Road Right	O	N/A	N/A	D	E	1	33	19	350	1912	1076	305	114.8
3/1	Prescot Road Ahead Left	U	N/A	N/A	B		1	43	-	500	1933	1933	709	70.5
3/2	Prescot Road Ahead Right	O	N/A	N/A	B	C	1	43	17	500	2000	1150	422	118.4
4/1	Beech Street Left Ahead	U	N/A	N/A	F		1	10	-	193	1832	1832	168	114.9
4/2	Beech Street Right	O	N/A	N/A	F		1	10	-	29	1787	1584	145	20.0
5/1		U	N/A	N/A	-		-	-	-	1281	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A	-		-	-	-	513	Inf	Inf	Inf	0.0
7/1		U	N/A	N/A	-		-	-	-	628	Inf	Inf	Inf	0.0
8/1		U	N/A	N/A	-					193	Inf	Inf	Inf	0.0

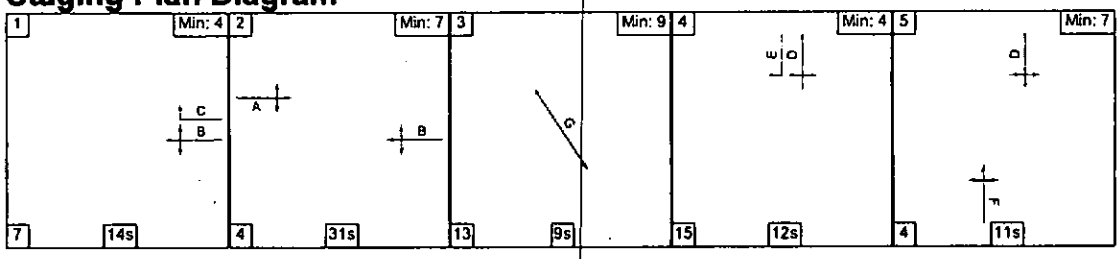
Full Input Data And Results

Link Num	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
1/1	402	348	-	-	-	8.4	30.2	-	38.6	345.5	15.2	30.2	45.4	
1/2	402	391	25	0	2	6.0	13.1	0.0	19.1	171.1	13.8	13.1	26.8	
2/1	240	240	-	-	-	2.4	0.4	-	2.8	42.1	6.6	0.4	7.0	
2/2	350	305	0	245	60	6.8	25.9	0.4	33.1	340.7	14.4	25.9	40.3	
3/1	500	500	-	-	-	4.5	1.2	-	5.7	41.0	14.2	1.2	15.3	
3/2	500	422	0	78	38	8.8	41.9	0.3	50.9	366.9	19.2	41.9	61.1	
4/1	193	168	-	-	-	4.6	15.6	-	20.2	377.5	7.9	15.6	23.6	
4/2	29	29	29	0	0	0.4	0.1	0.0	0.5	66.3	0.9	0.1	1.0	
5/1	1169	1169	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	442	442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	599	599	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	192	192	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

PRC for Signalled Links (%): -31.6 Total Delay for Signalled Links (pcuHr): 170.99
PRC Over All Links (%): -31.6 Total Delay Over All Links(pcuHr): 170.99 Cycle Time (s): 120

Scenario 8: '2016 PM ASS'
Staging Plan 1: 'Staging Plan No. 1'
Flow Group 8: '2016 PM Peak ASSESSMENT'

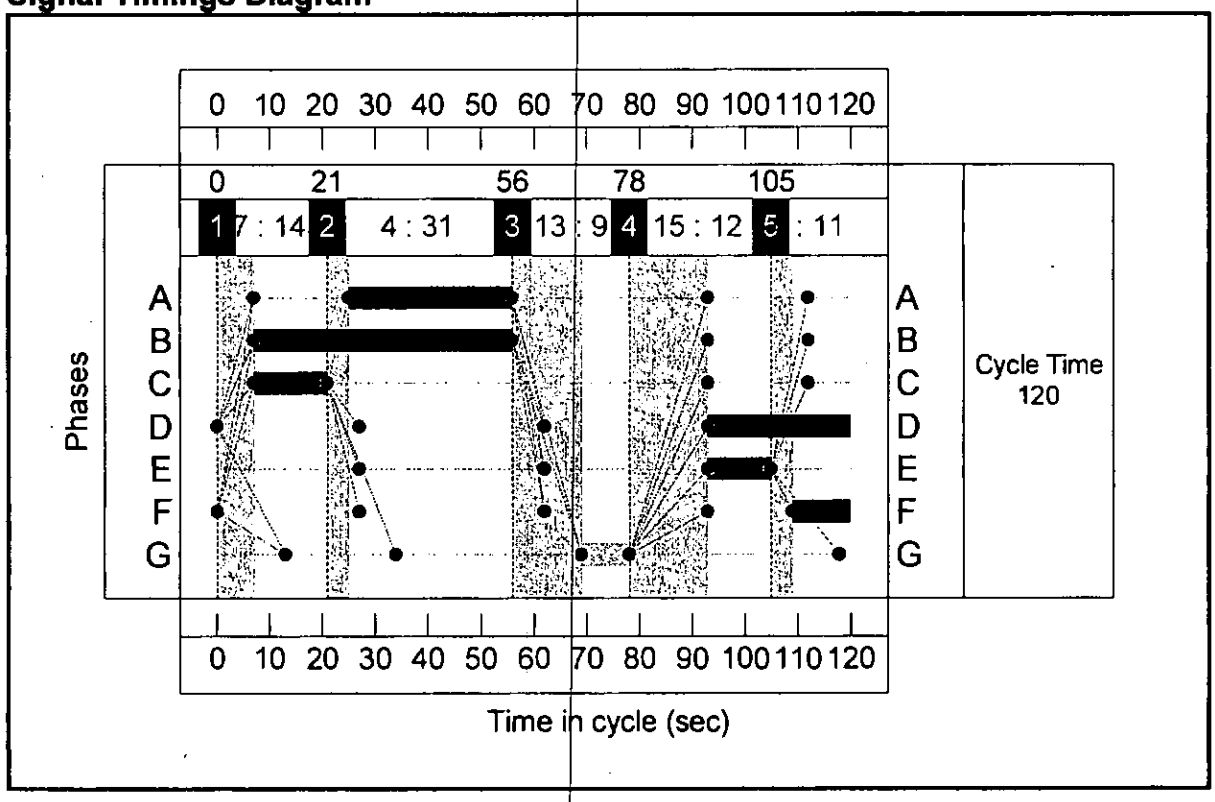
Staging Plan Diagram



Stage Timings

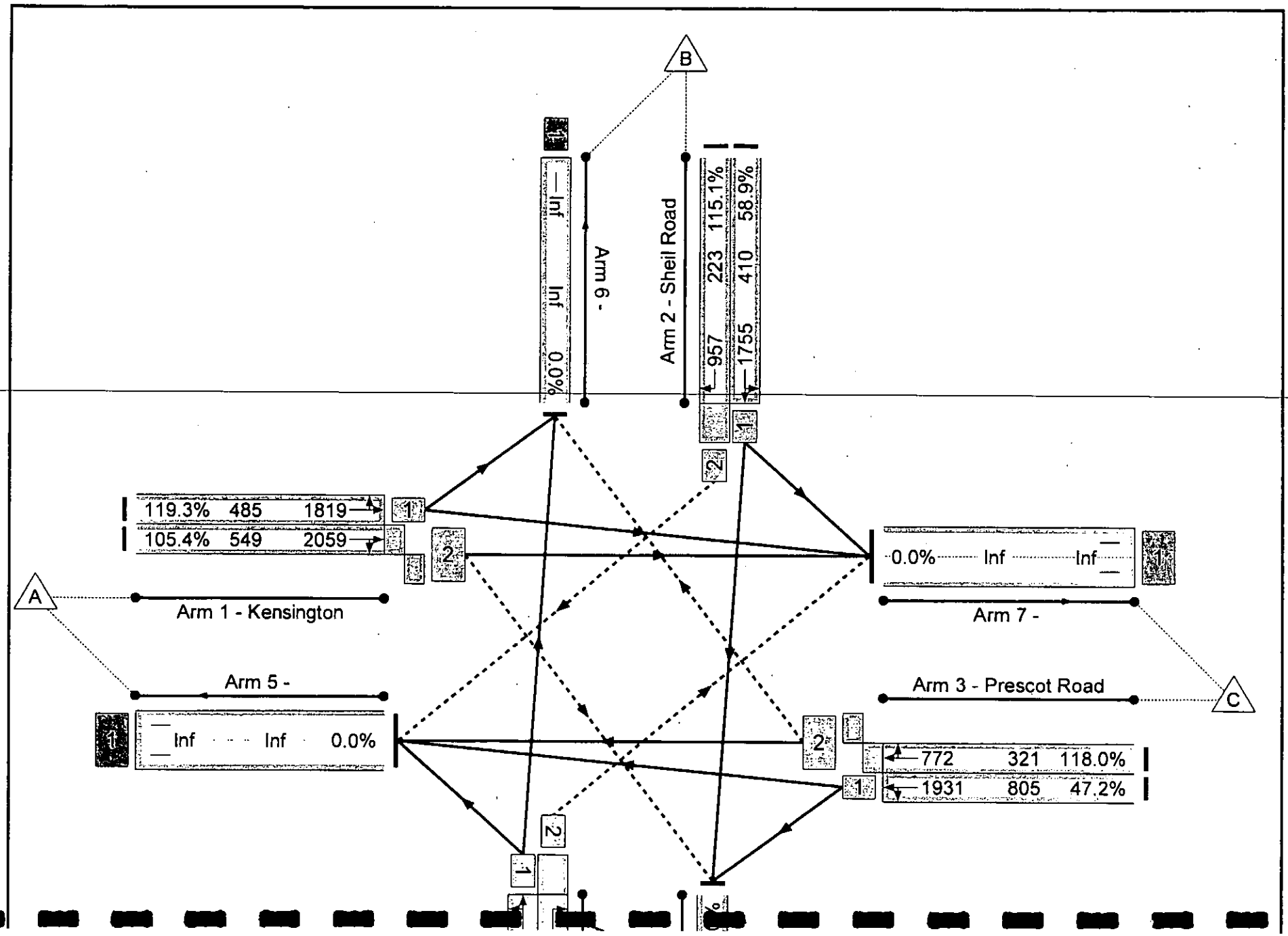
Stage	1	2	3	4	5
Duration	14	31	9	12	11
Change Point	0	21	56	78	105

Signal Timings Diagram



Junction Layout Diagram

Full Input Data And Results



Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington Left Ahead	U	N/A	N/A	A		1	31	-	579	1819	1819	485	119.3
1/2	Kensington Ahead Right	O	N/A	N/A	A		1	31	-	579	2066	2059	549	105.4
2/1	Sheil Road Left Ahead	U	N/A	N/A	D		1	27	-	241	1755	1755	410	58.9
2/2	Sheil Road Right	O	N/A	N/A	D	E	1	27	12	257	1912	957	223	115.1
3/1	Prescot Road Ahead Left	U	N/A	N/A	B		1	49	-	380	1931	1931	805	47.2
3/2	Prescot Road Ahead Right	O	N/A	N/A	B	C	1	49	14	380	1969	772	321	118.0
4/1	Beech Street Left Ahead	U	N/A	N/A	F		1	11	-	218	1880	1880	188	116.0
4/2	Beech Street Right	O	N/A	N/A	F		1	11	-	56	1787	1545	155	36.2
5/1		U	N/A	N/A	-		-	-	-	876	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A	-		-	-	-	718	Inf	Inf	Inf	0.0
7/1		U	N/A	N/A	-		-	-	-	946	Inf	Inf	Inf	0.0
8/1		U	N/A	N/A	-		-	-	-	148	Inf	Inf	Inf	0.0

Full Input Data And Results

Link Num	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
1/1	578	485	-	-	-	12.2	49.6	-	61.8	384.7	22.4	49.6	72.0	
1/2	578	549	31	0	2	8.7	21.4	0.0	30.1	187.5	20.3	21.4	41.7	
2/1	241	241	-	-	-	2.7	0.7	-	3.4	51.5	7.1	0.7	7.8	
2/2	257	223	0	163	60	5.2	20.0	0.4	25.6	359.1	10.6	20.0	30.6	
3/1	379	379	-	-	-	2.7	0.4	-	3.1	29.6	9.2	0.4	9.6	
3/2	380	321	0	98	43	6.0	32.0	0.4	38.4	364.5	14.9	32.0	46.9	
4/1	218	188	-	-	-	5.3	18.0	-	23.3	385.1	9.1	18.0	27.1	
4/2	56	56	56	0	0	0.8	0.3	0.0	1.1	69.3	1.7	0.3	2.0	
5/1	804	804	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	885	885	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	146	146	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

PRC for Signalled Links (%): -32.5 Total Delay for Signalled Links (pcuHr): 186.99
PRC Over All Links (%): -32.5 Total Delay Over All Links(pcuHr): 186.99 Cycle Time (s): 120

Appendix 6

LINSIG Outputs for Kensington/Sheil Road/Beech Street/Prescot Road

Appendix 7

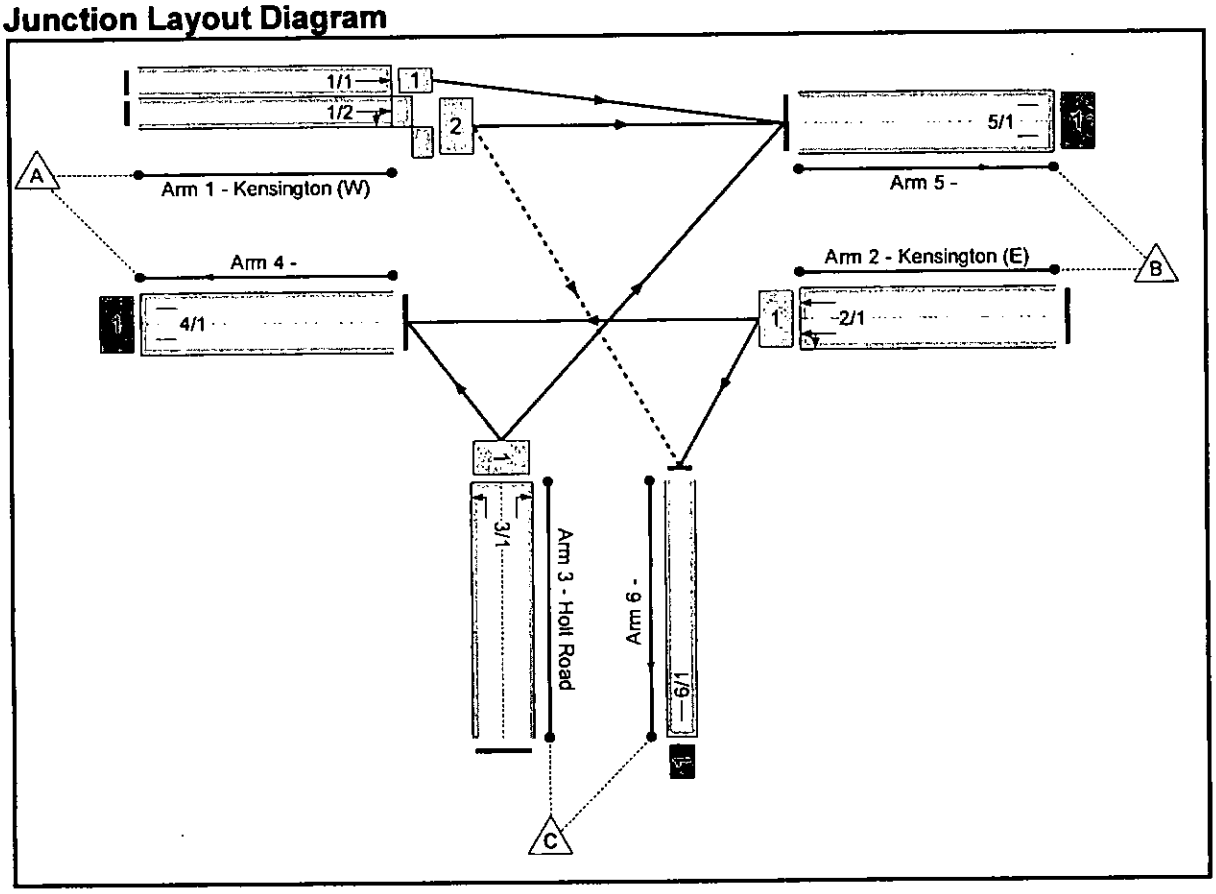
Travel Plan

Full Input Data And Results

User and Project Details

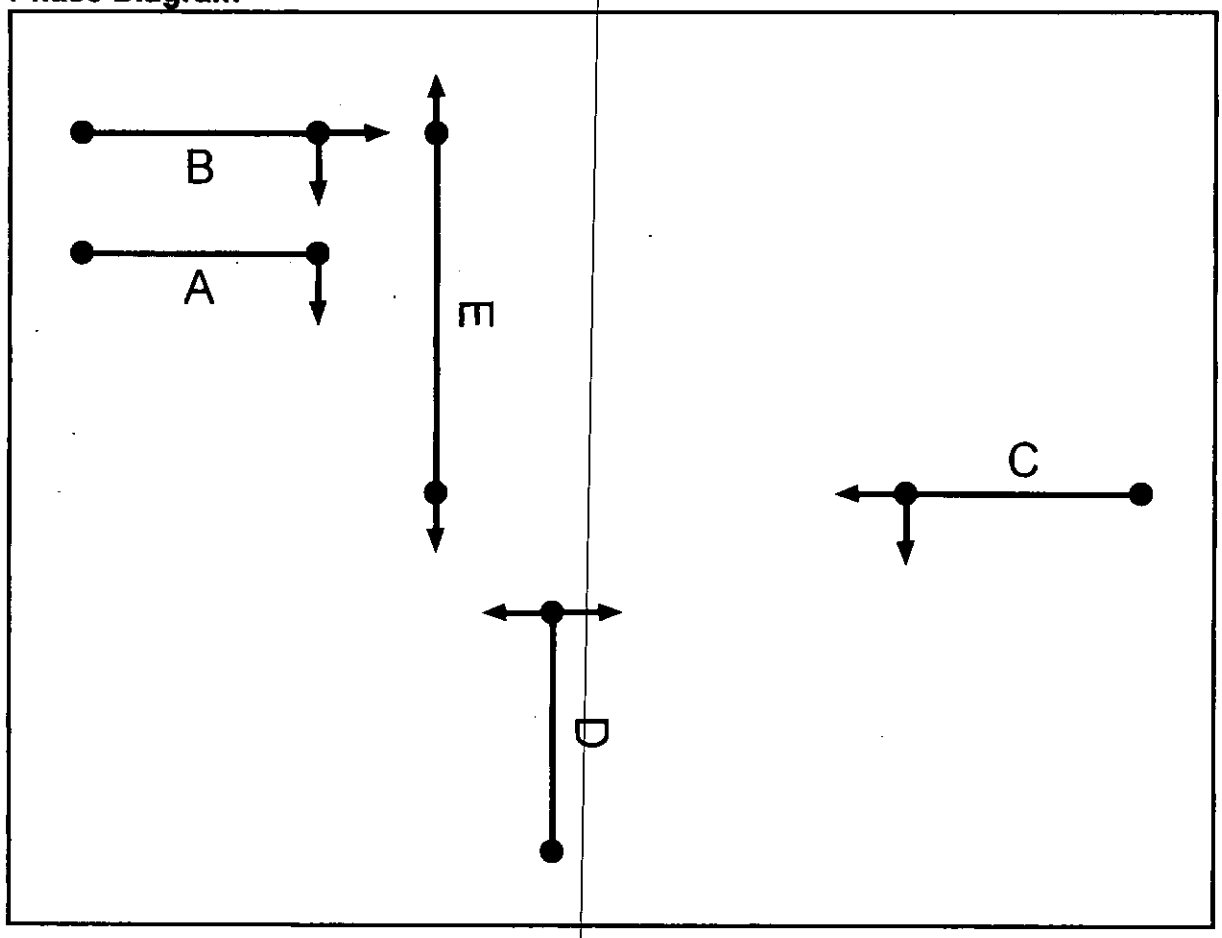
Project:	
Title:	
Location:	
File name:	Kensington-Holt Rd (Linsig 2).lsgx
Author:	
Company:	
Address:	
Controller:	Microsense
SCN:	
Notes:	

Junction Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase type	Assoc Phase		Street Min	Cont Min
A	Ind. Arrow	B		4	4
B	Traffic			7	7
C	Traffic			7	7
D	Traffic			7	7
E	Pedestrian			8	8

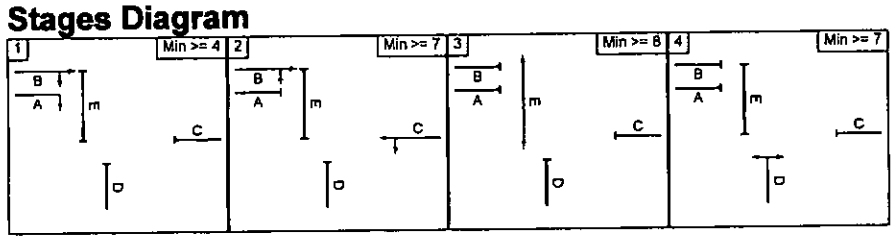
Phase Intergreens Matrix

		Starting Phase				
		A	B	C	D	E
Terminating Phase	A			4	6	7
	B				6	7
	C				6	7
	D	6	6	7		8
	E	10	10	10	10	

Phases in Stage

Stage No.	Phases In Stage
1	A B
2	B C
3	E
4	D

Stages Diagram



Phase Delays

There are no phase delays defined in this stage stream

Prohibited Stage Changes

		To Stage			
		1	2	3	4
From Stage	1		4	7	6
	2	0		7	6
	3	10	10		10
	4	6	7	8	

Link Input Data

Arm/ Link	Link Name	Link Type	Num Lanes	Phases	Start Disp.	End Disp.
1/1	Kensington (W) Ahead	U	1	B	2	3
1/2	Kensington (W) Ahead Right	O	1	B A	2	3
2/1	Kensington (E) Ahead Left	U	2	C	2	3
3/1	Holt Road Left Right	U	2	D	2	3
4/1		U	2		2	3
5/1		U	2		2	3
6/1		U	1		2	3

Give-Way Link Input Data

Arm/ Link	Link Name	Movement	Max Flow when Giving Way (PCU/Hr)	Opposing Link	Opp. Link Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up time (s)	Max Turns In Intergreen (PCU)
1/2	Kensington (W) Ahead Right	1/2 to 6/1	1400	2/1	1.10	2/1	2.00	1.00	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Arm/ Lane	Link Num	Physical Length (PCU)	Expected Usage (PCU)	Sat Flow Type	User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turnir Radiu (m)
1/1 (Kensington (W) Lane 1)	Link 1 (Kensington (W) Ahead)	Inf	Inf	Geom	1800	3.00	0.00	N	Arm 5 Ahead	Inf
1/2 (Kensington (W) Lane 2)	Link 2 (Kensington (W) Ahead Right)	Inf	Inf	Geom	1800	3.25	0.00	Y	Arm 5 Ahead	Inf
									Arm 6 Right	15.0(
2/1 (Kensington (E) Lane 1)	Link 1 (Kensington (E) Ahead Left)	Inf	Inf	Geom	1800	3.00	0.00	Y	Arm 4 Ahead	Inf
									Arm 6 Left	10.0(
2/2 (Kensington (E) Lane 2)	Link 1 (Kensington (E) Ahead Left)	Inf	Inf	Geom	1800	3.00	0.00	N	Arm 4 Ahead	Inf
3/1 (Holt Road Lane 1)	Link 1 (Holt Road Left Right)	Inf	Inf	Geom	1800	3.00	0.00	Y	Arm 4 Left	10.0(
3/2 (Holt Road Lane 2)	Link 1 (Holt Road Left Right)	Inf	Inf	Geom	1800	3.00	0.00	N	Arm 5 Right	13.0(
4/1	Link 1	Inf	Inf	Inf (Exit)	1800	3.25	0.00	Y		
4/2	Link 1	Inf	Inf	Inf (Exit)	1800	3.25	0.00	Y		
5/1	Link 1	Inf	Inf	Inf (Exit)	1800	3.25	0.00	Y		
5/2	Link 1	Inf	Inf	Inf (Exit)	1800	3.25	0.00	Y		
6/1	Link 1	Inf	Inf	Inf (Exit)	1800	3.25	0.00	Y		

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2011 AM Pk Base'	08:00	09:00	01:00	
2: '2011 PM PK Base'	17:00	18:00	01:00	
3: '2016 AM Pk Base'	08:00	09:00	01:00	
4: '2016 PM Pk Base'	17:00	18:00	01:00	
5: '2011 AM Pk with Dev'	08:00	09:00	01:00	
6: '2011 PM Pk with Dev'	17:00	18:00	01:00	
7: '2016 AM Pk with Dev'	08:00	09:00	01:00	
8: '2016 PM Pk with Dev'	17:00	18:00	01:00	

Flow Group 1: '2011 AM Pk Base'

Traffic Flow Matrix

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	532	101	633
	B	753	0	463	1216
	C	134	324	0	458
	Tot.	887	856	564	2307

Link Traffic Flows

Arm/Link	Flow Group 1: 2011 AM Pk Base
1/1	317
1/2	317
2/1	1216
3/1	458
4/1	887
5/1	856
6/1	564

Lane Saturation Flows

Arm/ Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat flow (PCU/Hr)
1/1 (Kensington (W) Lane 1)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055
1/2 (Kensington (W) Lane 2)	3.25	0.00	Y	Arm 5 Ahead	Inf	68.1 %	1880
				Arm 6 Right	15.00	31.9 %	
2/1 (Kensington (E) Lane 1)	3.00	0.00	Y	Arm 4 Ahead	Inf	23.9 %	1719
				Arm 6 Left	10.00	76.1 %	
2/2 (Kensington (E) Lane 2)	3.00	0.00	N	Arm 4 Ahead	Inf	100.0 %	2055
3/1 (Holt Road Lane 1)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665
3/2 (Holt Road Lane 2)	3.00	0.00	N	Arm 5 Right	13.00	100.0 %	1842
4/1	Infinite Saturation Flow (on Exit Link)						Inf
4/2	Infinite Saturation Flow (on Exit Link)						Inf
5/1	Infinite Saturation Flow (on Exit Link)						Inf
5/2	Infinite Saturation Flow (on Exit Link)						Inf
6/1	Infinite Saturation Flow (on Exit Link)						Inf

Flow Group 2: '2011 PM PK Base'

Traffic Flow Matrix

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	700	97	797
	B	521	0	280	801
	C	170	412	0	582
	Tot.	691	1112	377	2180

Full Input Data And Results

Link Traffic Flows

Arm/Link	Flow Group 2: 2011 PM PK Base
1/1	399
1/2	399
2/1	801
3/1	582
4/1	691
5/1	1112
6/1	377

Lane Saturation Flows

Arm/ Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat flow (PCU/Hr)
1/1 (Kensington (W) Lane 1)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055
1/2 (Kensington (W) Lane 2)	3.25	0.00	Y	Arm 5 Ahead	Inf	75.7 %	1894
				Arm 6 Right	15.00	24.3 %	
2/1 (Kensington (E) Lane 1)	3.00	0.00	Y	Arm 4 Ahead	Inf	30.1 %	1733
				Arm 6 Left	10.00	69.9 %	
2/2 (Kensington (E) Lane 2)	3.00	0.00	N	Arm 4 Ahead	Inf	100.0 %	2055
3/1 (Holt Road Lane 1)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665
3/2 (Holt Road Lane 2)	3.00	0.00	N	Arm 5 Right	13.00	100.0 %	1842
4/1	Infinite Saturation Flow (on Exit Link)						Inf
4/2	Infinite Saturation Flow (on Exit Link)						Inf
5/1	Infinite Saturation Flow (on Exit Link)						Inf
5/2	Infinite Saturation Flow (on Exit Link)						Inf
6/1	Infinite Saturation Flow (on Exit Link)						Inf

Flow Group 3: '2016 AM Pk Base'

Traffic Flow Matrix

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	574	109	683
	B	813	0	500	1313
	C	145	350	0	495
	Tot.	958	924	609	2491

Link Traffic Flows

Arm/Link	Flow Group 3: 2016 AM Pk Base
1/1	342
1/2	342
2/1	1313
3/1	495
4/1	958
5/1	924
6/1	609

Lane Saturation Flows

Arm/ Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat flow (PCU/Hr)
1/1 (Kensington (W) Lane 1)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055
1/2 (Kensington (W) Lane 2)	3.25	0.00	Y	Arm 5 Ahead	Inf	68.1 %	1880
				Arm 6 Right	15.00	31.9 %	
2/1 (Kensington (E) Lane 1)	3.00	0.00	Y	Arm 4 Ahead	Inf	23.8 %	1719
				Arm 6 Left	10.00	76.2 %	
2/2 (Kensington (E) Lane 2)	3.00	0.00	N	Arm 4 Ahead	Inf	100.0 %	2055
3/1 (Holt Road Lane 1)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665
3/2 (Holt Road Lane 2)	3.00	0.00	N	Arm 5 Right	13.00	100.0 %	1842
4/1	Infinite Saturation Flow (on Exit Link)						Inf
4/2	Infinite Saturation Flow (on Exit Link)						Inf
5/1	Infinite Saturation Flow (on Exit Link)						Inf
5/2	Infinite Saturation Flow (on Exit Link)						Inf
6/1	Infinite Saturation Flow (on Exit Link)						Inf

Flow Group 4: '2016 PM Pk Base'
Traffic Flow Matrix
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	574	109	683
	B	561	0	302	863
	C	183	444	0	627
	Tot.	744	1018	411	2173

Full Input Data And Results

Link Traffic Flows

Arm/Link	Flow Group 4: 2016 PM Pk Base
1/1	342
1/2	342
2/1	863
3/1	627
4/1	744
5/1	1018
6/1	411

Lane Saturation Flows

Arm/ Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat flow (PCU/Hr)
1/1 (Kensington (W) Lane 1)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055
1/2 (Kensington (W) Lane 2)	3.25	0.00	Y	Arm 5 Ahead	Inf	68.1 %	1880
				Arm 6 Right	15.00	31.9 %	
2/1 (Kensington (E) Lane 1)	3.00	0.00	Y	Arm 4 Ahead	Inf	30.0 %	1733
				Arm 6 Left	10.00	70.0 %	
2/2 (Kensington (E) Lane 2)	3.00	0.00	N	Arm 4 Ahead	Inf	100.0 %	2055
3/1 (Holt Road Lane 1)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665
3/2 (Holt Road Lane 2)	3.00	0.00	N	Arm 5 Right	13.00	100.0 %	1842
4/1	Infinite Saturation Flow (on Exit Link)						Inf
4/2	Infinite Saturation Flow (on Exit Link)						Inf
5/1	Infinite Saturation Flow (on Exit Link)						Inf
5/2	Infinite Saturation Flow (on Exit Link)						Inf
6/1	Infinite Saturation Flow (on Exit Link)						Inf

Flow Group 5: '2011 AM Pk with Dev'
Traffic Flow Matrix
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	532	102	634
	B	753	0	463	1216
	C	133	324	0	457
	Tot.	886	856	565	2307

Link Traffic Flows

Arm/Link	Flow Group 5: 2011 AM Pk with Dev
1/1	317
1/2	317
2/1	1216
3/1	457
4/1	886
5/1	856
6/1	565

Lane Saturation Flows

Arm/ Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat flow (PCU/Hr)
1/1 (Kensington (W) Lane 1)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055
1/2 (Kensington (W) Lane 2)	3.25	0.00	Y	Arm 5 Ahead	Inf	67.8 %	1880
				Arm 6 Right	15.00	32.2 %	
2/1 (Kensington (E) Lane 1)	3.00	0.00	Y	Arm 4 Ahead	Inf	23.9 %	1719
				Arm 6 Left	10.00	76.1 %	
2/2 (Kensington (E) Lane 2)	3.00	0.00	N	Arm 4 Ahead	Inf	100.0 %	2055
3/1 (Holt Road Lane 1)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665
3/2 (Holt Road Lane 2)	3.00	0.00	N	Arm 5 Right	13.00	100.0 %	1842
4/1	Infinite Saturation Flow (on Exit Link)						Inf
4/2	Infinite Saturation Flow (on Exit Link)						Inf
5/1	Infinite Saturation Flow (on Exit Link)						Inf
5/2	Infinite Saturation Flow (on Exit Link)						Inf
6/1	Infinite Saturation Flow (on Exit Link)						Inf

Flow Group 6: '2011 PM Pk with Dev'

Traffic Flow Matrix

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	700	97	797
	B	521	0	280	801
	C	170	412	0	582
	Tot.	691	1112	377	2180

Full Input Data And Results

Link Traffic Flows

Arm/Link	Flow Group 6: 2011 PM Pk with Dev
1/1	399
1/2	399
2/1	801
3/1	582
4/1	691
5/1	1112
6/1	377

Lane Saturation Flows

Arm/ Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat flow (PCU/Hr)
1/1 (Kensington (W) Lane 1)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055
1/2 (Kensington (W) Lane 2)	3.25	0.00	Y	Arm 5 Ahead	Inf	75.7 %	1894
				Arm 6 Right	15.00	24.3 %	
2/1 (Kensington (E) Lane 1)	3.00	0.00	Y	Arm 4 Ahead	Inf	30.1 %	1733
				Arm 6 Left	10.00	69.9 %	
2/2 (Kensington (E) Lane 2)	3.00	0.00	N	Arm 4 Ahead	Inf	100.0 %	2055
3/1 (Holt Road Lane 1)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665
3/2 (Holt Road Lane 2)	3.00	0.00	N	Arm 5 Right	13.00	100.0 %	1842
4/1	Infinite Saturation Flow (on Exit Link)						Inf
4/2	Infinite Saturation Flow (on Exit Link)						Inf
5/1	Infinite Saturation Flow (on Exit Link)						Inf
5/2	Infinite Saturation Flow (on Exit Link)						Inf
6/1	Infinite Saturation Flow (on Exit Link)						Inf

Flow Group 7: '2016 AM Pk with Dev'

Traffic Flow Matrix

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	574	110	684
	B	813	0	500	1313
	C	144	350	0	494
	Tot.	957	924	610	2491

Link Traffic Flows

Arm/Link	Flow Group 7: 2016 AM Pk with Dev
1/1	342
1/2	342
2/1	1313
3/1	494
4/1	957
5/1	924
6/1	610

Lane Saturation Flows

Arm/ Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat flow (PCU/Hr)
1/1 (Kensington (W) Lane 1)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055
1/2 (Kensington (W) Lane 2)	3.25	0.00	Y	Arm 5 Ahead	Inf	67.8 %	1880
				Arm 6 Right	15.00	32.2 %	
2/1 (Kensington (E) Lane 1)	3.00	0.00	Y	Arm 4 Ahead	Inf	23.8 %	1719
				Arm 6 Left	10.00	76.2 %	
2/2 (Kensington (E) Lane 2)	3.00	0.00	N	Arm 4 Ahead	Inf	100.0 %	2055
3/1 (Holt Road Lane 1)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665
3/2 (Holt Road Lane 2)	3.00	0.00	N	Arm 5 Right	13.00	100.0 %	1842
4/1	Infinite Saturation Flow (on Exit Link)						Inf
4/2	Infinite Saturation Flow (on Exit Link)						Inf
5/1	Infinite Saturation Flow (on Exit Link)						Inf
5/2	Infinite Saturation Flow (on Exit Link)						Inf
6/1	Infinite Saturation Flow (on Exit Link)						Inf

Flow Group 8: '2016 PM Pk with Dev'

Traffic Flow Matrix

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	754	105	859
	B	561	0	302	863
	C	183	444	0	627
	Tot.	744	1198	407	2349

Full Input Data And Results

Link Traffic Flows

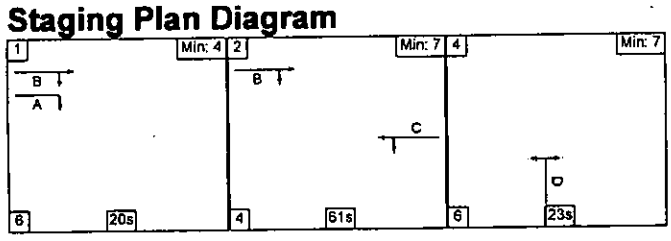
Arm/Link	Flow Group 8: 2016 PM Pk with Dev
1/1	430
1/2	430
2/1	863
3/1	627
4/1	744
5/1	1198
6/1	407

Lane Saturation Flows

Arm/ Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat flow (PCU/Hr)
1/1 (Kensington (W) Lane 1)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055
1/2 (Kensington (W) Lane 2)	3.25	0.00	Y	Arm 5 Ahead	Inf	75.6 %	1894
				Arm 6 Right	15.00	24.4 %	
2/1 (Kensington (E) Lane 1)	3.00	0.00	Y	Arm 4 Ahead	Inf	30.0 %	1733
				Arm 6 Left	10.00	70.0 %	
2/2 (Kensington (E) Lane 2)	3.00	0.00	N	Arm 4 Ahead	Inf	100.0 %	2055
3/1 (Holt Road Lane 1)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665
3/2 (Holt Road Lane 2)	3.00	0.00	N	Arm 5 Right	13.00	100.0 %	1842
4/1	Infinite Saturation Flow (on Exit Link)						Inf
4/2	Infinite Saturation Flow (on Exit Link)						Inf
5/1	Infinite Saturation Flow (on Exit Link)						Inf
5/2	Infinite Saturation Flow (on Exit Link)						Inf
6/1	Infinite Saturation Flow (on Exit Link)						Inf

Scenario 1: '2011 BASE AM'
Staging Plan 1: 'Staging Plan No. 1'
Flow Group 1: '2011 AM Pk Base'

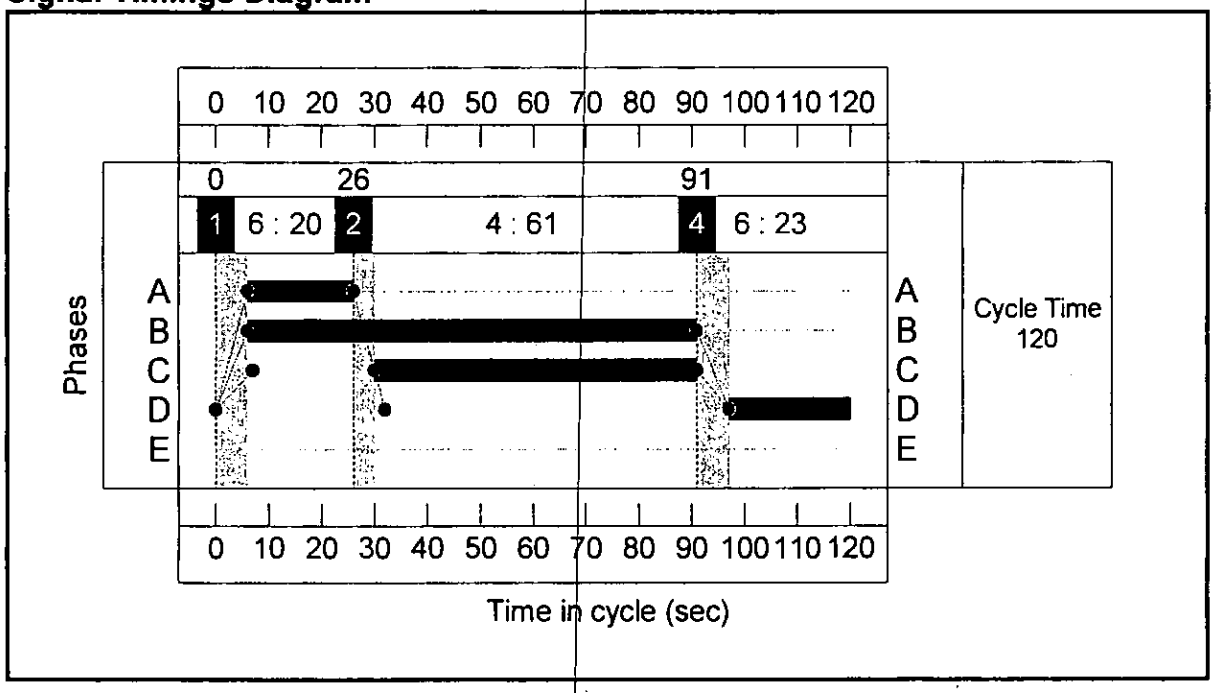
Staging Plan Diagram



Stage Timings

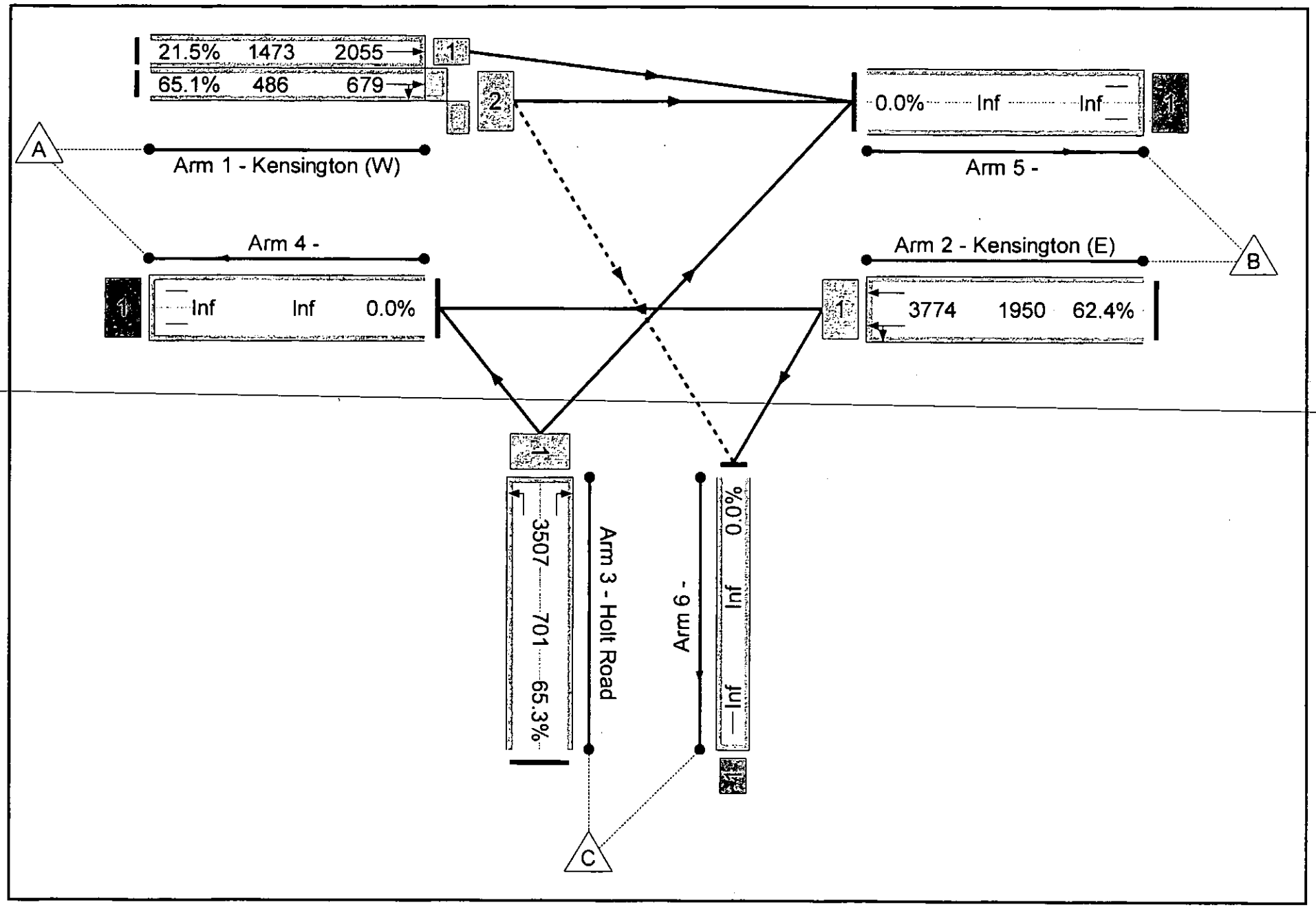
Stage	1	2	4
Duration	20	61	23
Change Point	0	26	91

Signal Timings Diagram



Junction Layout Diagram

Full Input Data And Results



Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington (W) Ahead	U	N/A	N/A	B		1	85	-	317	2055	2055	1473	21.5
1/2	Kensington (W) Ahead Right	O	N/A	N/A	B	A	1	85	20	317	1880	679	486	65.1
2/1	Kensington (E) Ahead Left	U	N/A	N/A	C		1	61	-	1216	3774	3774	1950	62.4
3/1	Holt Road Left Right	U	N/A	N/A	D		1	23	-	458	3507	3507	701	65.3
4/1		U	N/A	N/A	-		-	-	-	887	Inf	Inf	Inf	0.0
5/1		U	N/A	N/A	-		-		-	856	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A	-		-	-	-	564	Inf	Inf	Inf	0.0

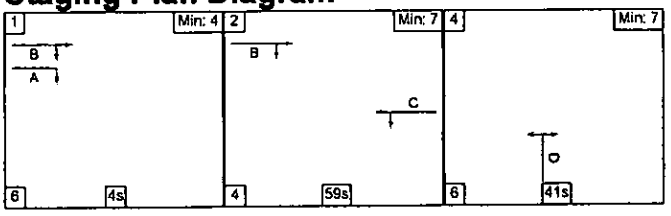
Link Num	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
1/1	317	317	-	-	-	0.5	0.1	-	0.6	7.3	3.5	0.1	3.7	
1/2	317	317	18	47	36	0.5	0.9	0.4	1.8	21.0	3.5	0.9	4.4	
2/1	1216	1216	-	-	-	7.0	0.8	-	7.8	23.1	28.7	0.8	29.5	
3/1	458	458	-	-	-	5.6	0.9	-	6.6	51.5	14.0	0.9	14.9	
4/1	887	887	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	856	856	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	564	564	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

Full Input Data And Results

PRC for Signalled Links (%):	37.8	Total Delay for Signalled Links (pcuHr):	16.85	
PRC Over All Links (%):	37.8	Total Delay Over All Links(pcuHr):	16.85	Cycle Time (s): 120

Scenario 2: '2011 BASE PM'
Staging Plan 1: 'Staging Plan No. 1'
Flow Group 2: '2011 PM PK Base'

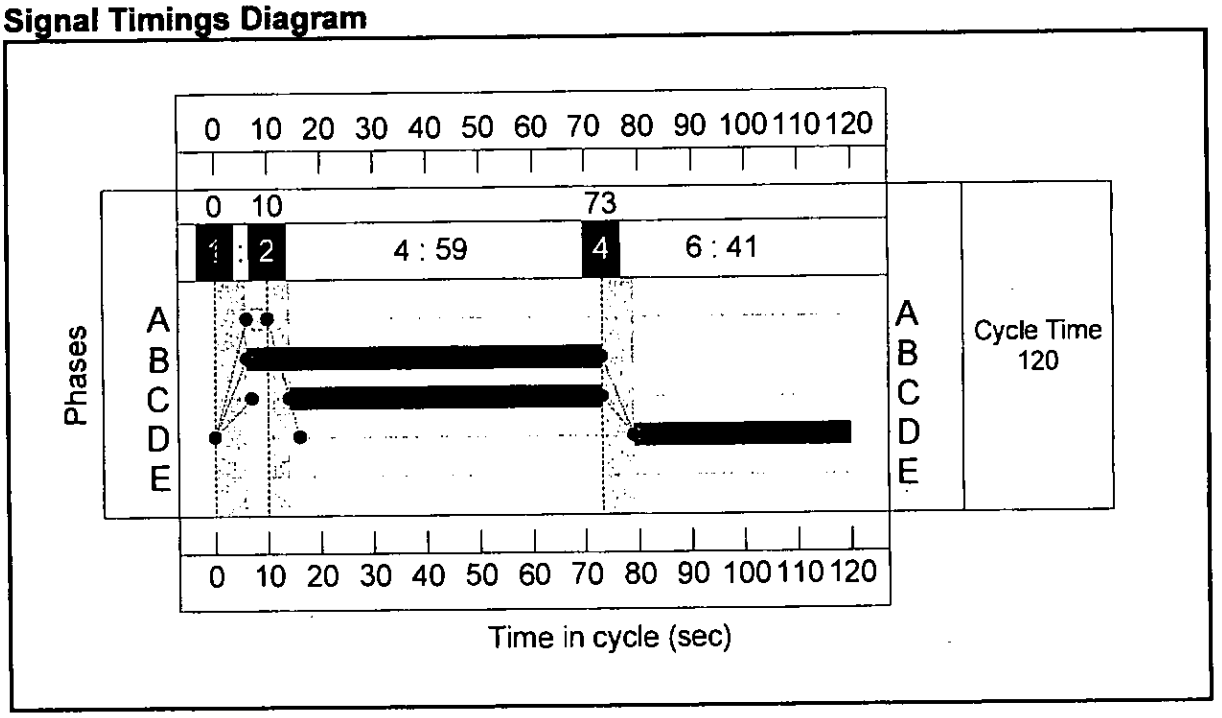
Staging Plan Diagram



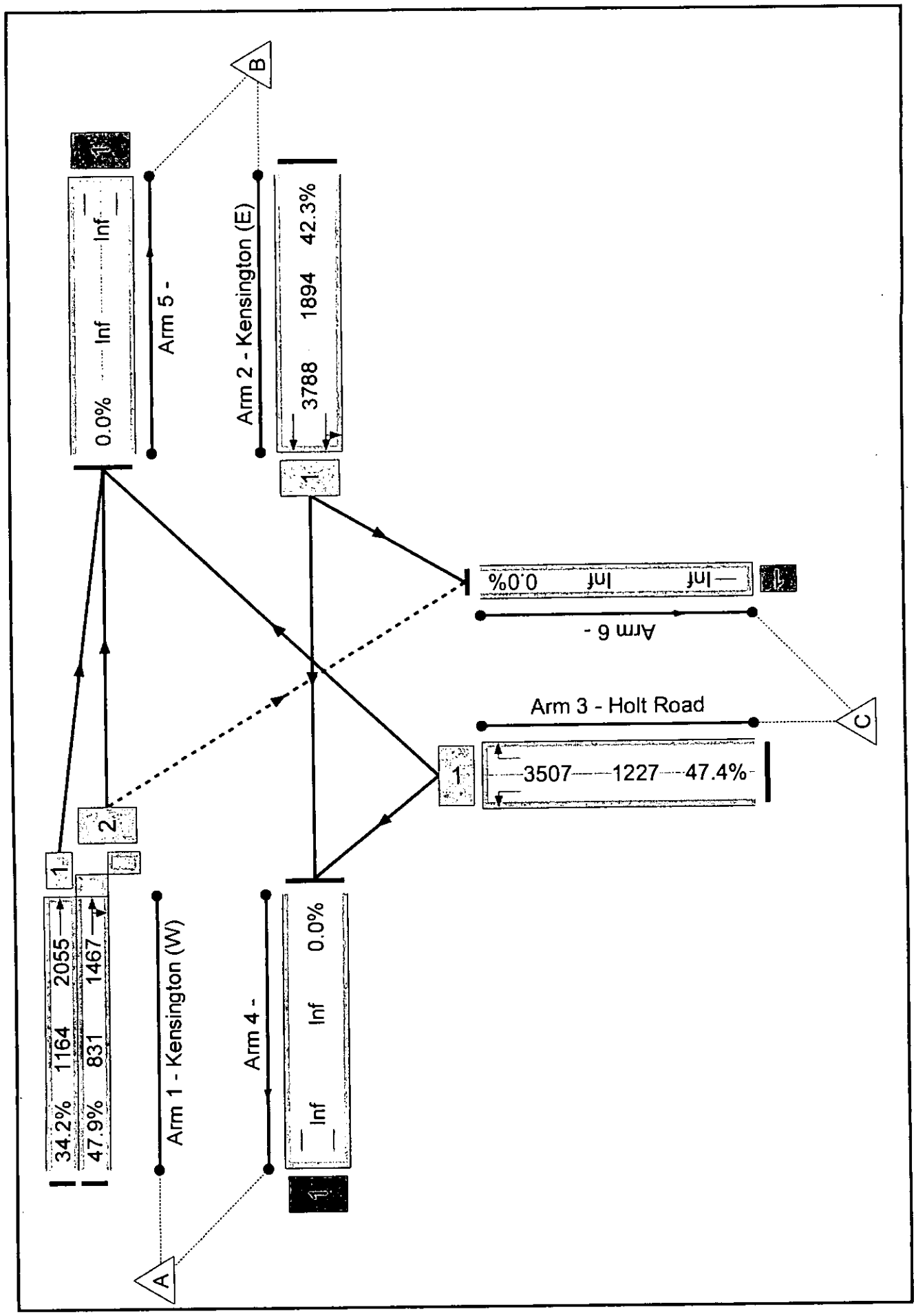
Stage Timings

Stage	1	2	4
Duration	4	59	41
Change Point	0	10	73

Signal Timings Diagram



Junction Layout Diagram


A
B
C
Arm 1 - Kensington (W)
34.2% 1164 2055
47.9% 831 1467
Arm 2 - Kensington (E)
3788 1894 42.3%
Arm 3 - Holt Road
3507 1227 47.4%
Arm 4 -
Inf Inf 0.0%
Arm 5 -
0.0% Inf Inf
Arm 6 -
Inf Inf 0.0%
1
2

Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington (W) Ahead	U	N/A	N/A	B		1	67	-	399	2055	2055	1164	34.2
1/2	Kensington (W) Ahead Right	O	N/A	N/A	B	A	1	67	4	399	1894	1467	831	47.9
2/1	Kensington (E) Ahead Left	U	N/A	N/A	C		1	59	-	801	3788	3788	1894	42.3
3/1	Holt Road Left Right	U	N/A	N/A	D		1	41	-	582	3507	3507	1227	47.4
4/1		U	N/A	N/A	-		-	-	-	691	Inf	Inf	Inf	0.0
5/1		U	N/A	N/A						1112	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A	-		-	-	-	377	Inf	Inf	Inf	0.0

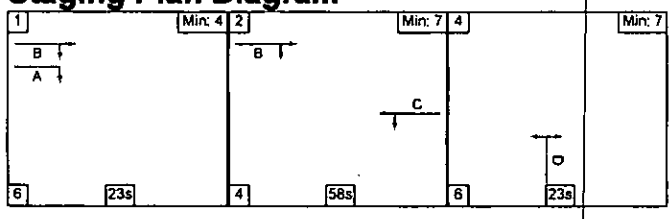
Link Num	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
1/1	398	398	-	-	-	1.5	0.3	-	1.8	16.3	7.1	0.3	7.3	
1/2	398	398	75	21	1	1.6	0.5	0.2	2.3	20.6	7.3	0.5	7.8	
2/1	801	801	-	-	-	4.2	0.4	-	4.6	20.7	16.9	0.4	17.3	
3/1	582	582	-	-	-	4.9	0.5	-	5.4	33.2	15.0	0.5	15.5	
4/1	691	691	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	1112	1112			-	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
6/1	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

Full Input Data And Results

PRC for Signalled Links (%):	87.8	Total Delay for Signalled Links (pcuHr):	14.05	
PRC Over All Links (%):	87.8	Total Delay Over All Links(pcuHr):	14.05	Cycle Time (s): 120

Scenario 3: '2016 BASE AM'
Staging Plan 1: 'Staging Plan No. 1'
Flow Group 3: '2016 AM Pk Base'

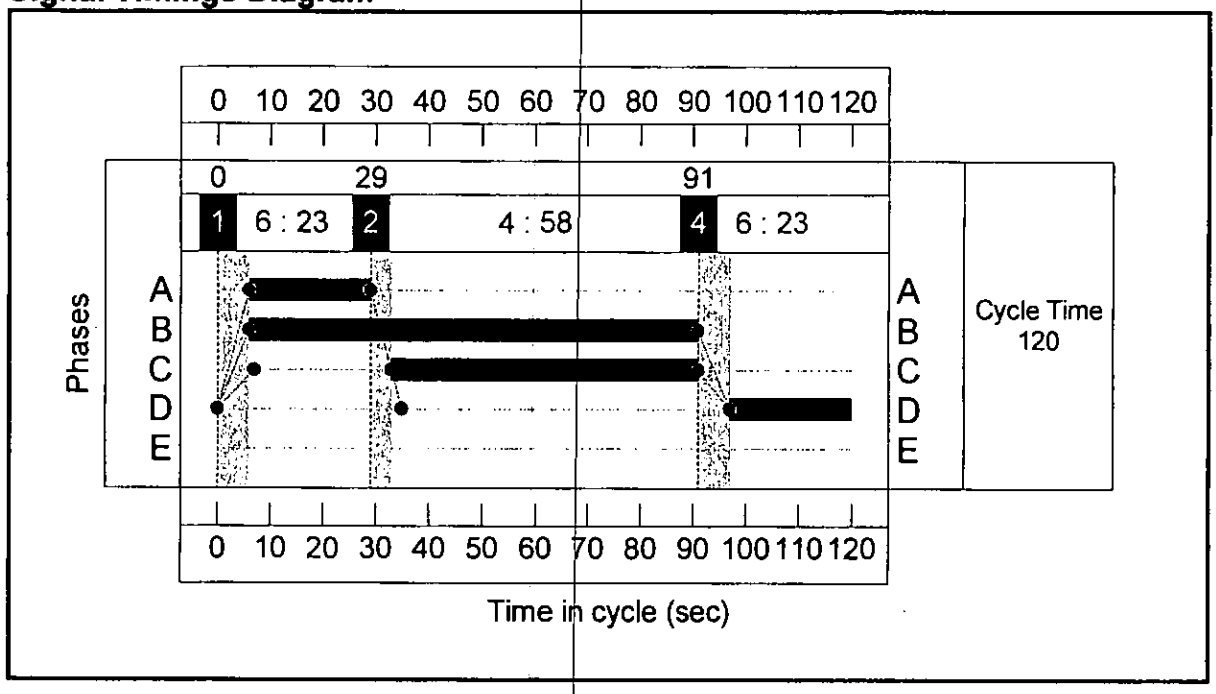
Staging Plan Diagram



Stage Timings

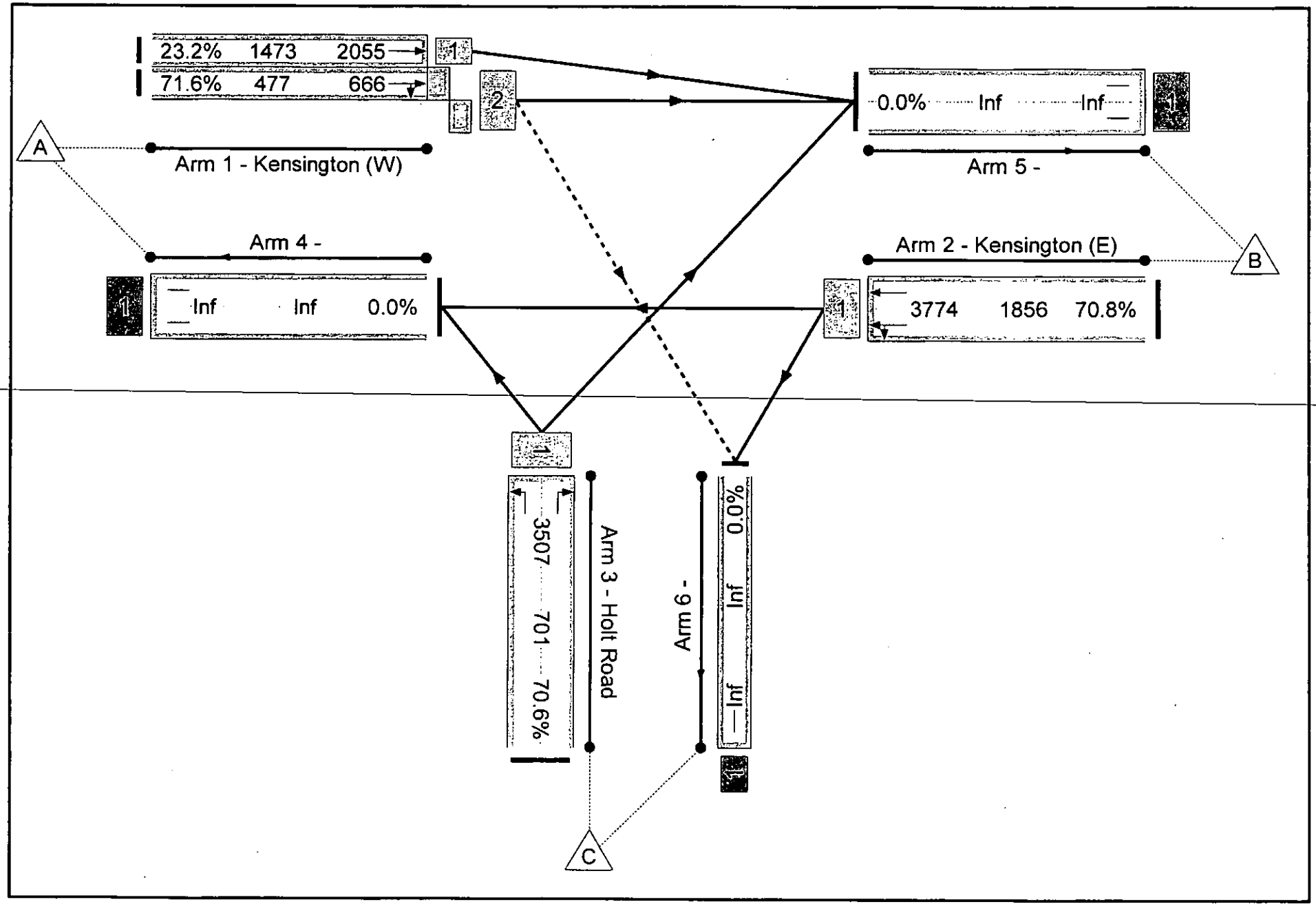
Stage	1	2	4
Duration	23	58	23
Change Point	0	29	91

Signal Timings Diagram



Junction Layout Diagram

Full Input Data And Results



Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington (W) Ahead	U	N/A	N/A	B		1	85	-	342	2055	2055	1473	23.2
1/2	Kensington (W) Ahead Right	O	N/A	N/A	B	A	1	85	23	342	1880	666	477	71.6
2/1	Kensington (E) Ahead Left	U	N/A	N/A	C		1	58	-	1313	3774	3774	1856	70.8
3/1	Holt Road Left Right	U	N/A	N/A	D	-	1	23	-	495	3507	3507	701	70.6
4/1		U	N/A	N/A	-		-	-	-	958	Inf	Inf	Inf	0.0
5/1		U	N/A	N/A	-				-	924	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A	-		-	-	-	609	Inf	Inf	Inf	0.0

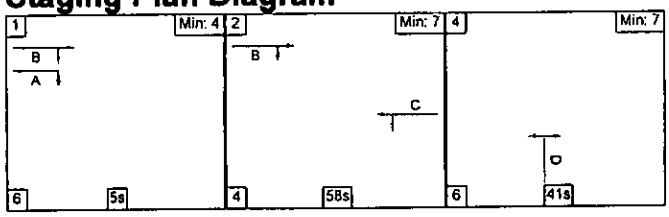
Link Num	Entering (pcu)	Leaving (pcu)	Turners in Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
1/1	341	341	-	-	-	0.5	0.2	-	0.7	7.4	3.8	0.2	3.9	
1/2	341	341	0	69	40	1.3	1.2	0.5	3.0	31.4	5.9	1.2	7.2	
2/1	1313	1313	-	-	-	8.7	1.2	-	9.9	27.1	33.9	1.2	35.1	
3/1	495	495	-	-	-	6.1	1.2		7.3	53.3	15.3	1.2	16.4	
4/1	958	958	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	924	924		-		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
6/1	609	609	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

Full Input Data And Results

PRC for Signalled Links (%):	25.7	Total Delay for Signalled Links (pcuHr):	20.89	
PRC Over All Links (%):	25.7	Total Delay Over All Links(pcuHr):	20.89	Cycle Time (s): 120

Scenario 4: '2016 BASE PM'
Staging Plan 1: 'Staging Plan No. 1'
Flow Group 4: '2016 PM Pk Base'

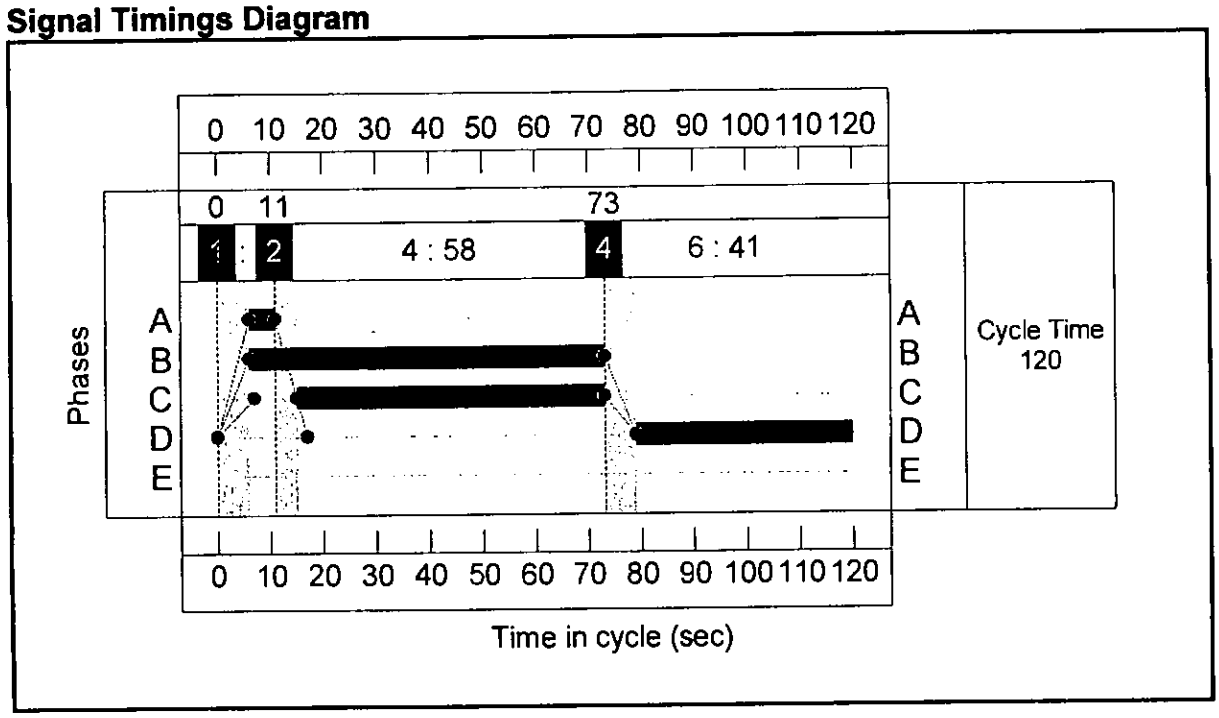
Staging Plan Diagram



Stage Timings

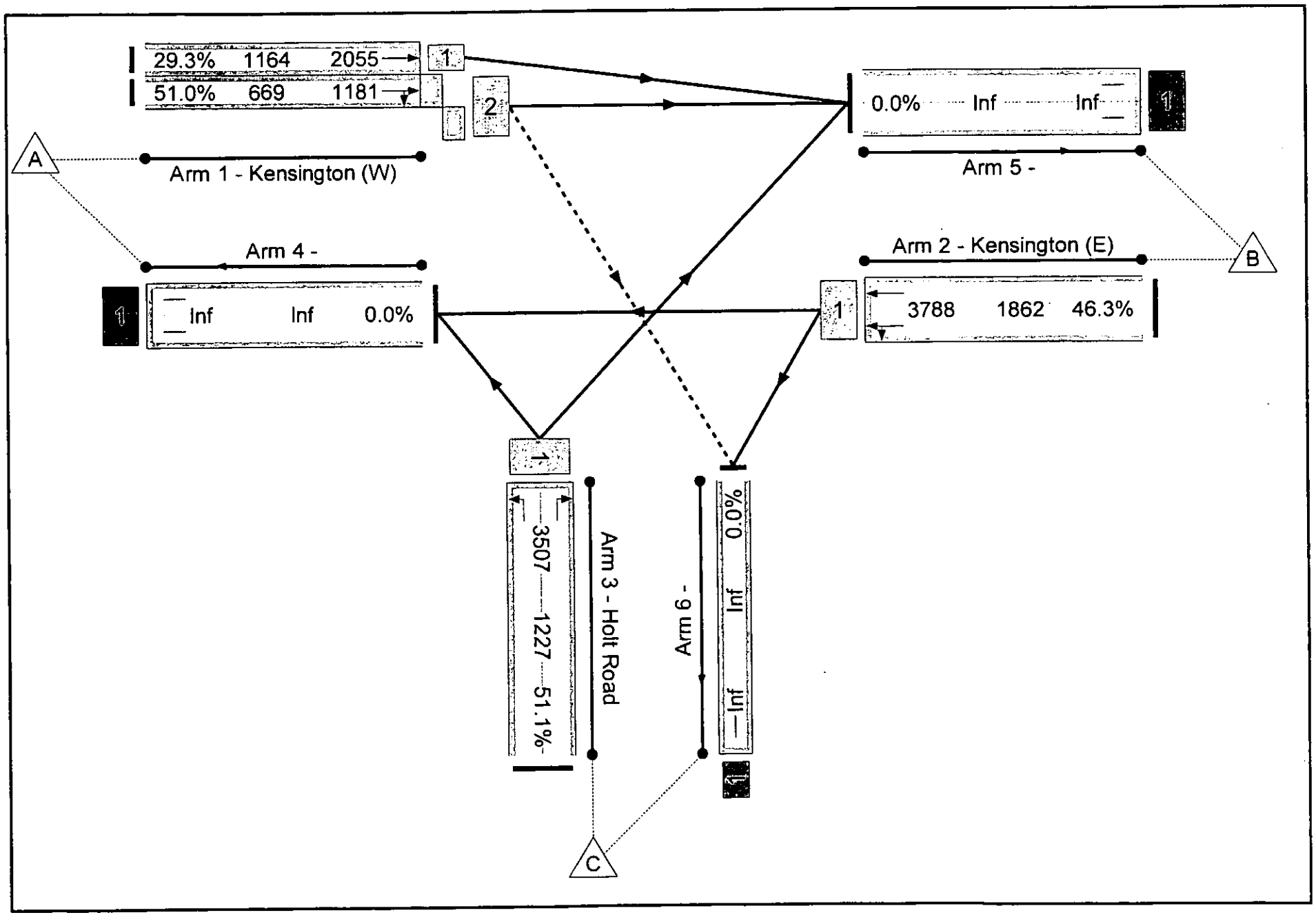
Stage	1	2	4
Duration	5	58	41
Change Point	0	11	73

Signal Timings Diagram



Junction Layout Diagram

Full Input Data And Results



Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington (W) Ahead	U	N/A	N/A	B		1	67	-	342	2055	2055	1164	29.3
1/2	Kensington (W) Ahead Right	O	N/A	N/A	B	A	1	67	5	342	1880	1181	669	51.0
2/1	Kensington (E) Ahead Left	U	N/A	N/A	C		1	58	-	863	3788	3788	1862	46.3
3/1	Holt Road Left Right	U	N/A	N/A	D		1	41		627	3507	3507	1227	51.1
4/1		U	N/A	N/A	-		-	-	-	744	Inf	Inf	Inf	0.0
5/1		U	N/A	N/A	-					1018	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A	-		-	-	-	411	Inf	Inf	Inf	0.0

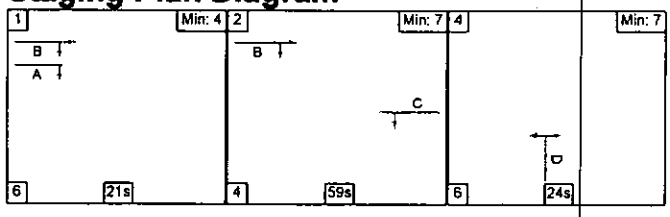
Link Num	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
1/1	341	341	-	-	-	1.3	0.2	-	1.5	15.7	5.9	0.2	6.1	
1/2	341	341	77	32	1	1.3	0.5	0.2	2.1	21.9	6.0	0.5	6.5	
2/1	863	863	-	-	-	4.8	0.4	-	5.2	21.9	18.7	0.4	19.1	
3/1	627	627	-		-	5.4	0.5	-	5.9	33.9	16.4	0.5	16.9	
4/1	744	744	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	1018	1018	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	411	411	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

Full Input Data And Results

PRC for Signalled Links (%):	76.2	Total Delay for Signalled Links (pcuHr):	14.71	
PRC Over All Links (%):	76.2	Total Delay Over All Links(pcuHr):	14.71	Cycle Time (s): 120

Scenario 5: '2011 ASSESSMENT AM'
Staging Plan 1: 'Staging Plan No. 1'
Flow Group 5: '2011 AM Pk with Dev'

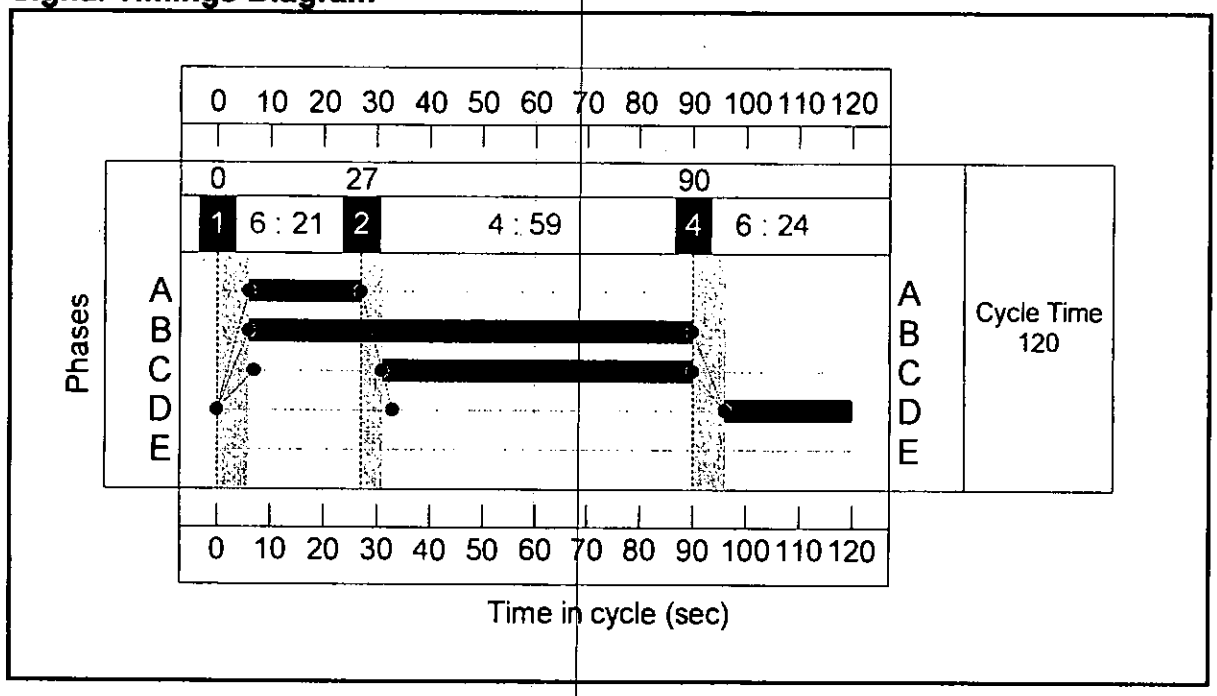
Staging Plan Diagram



Stage Timings

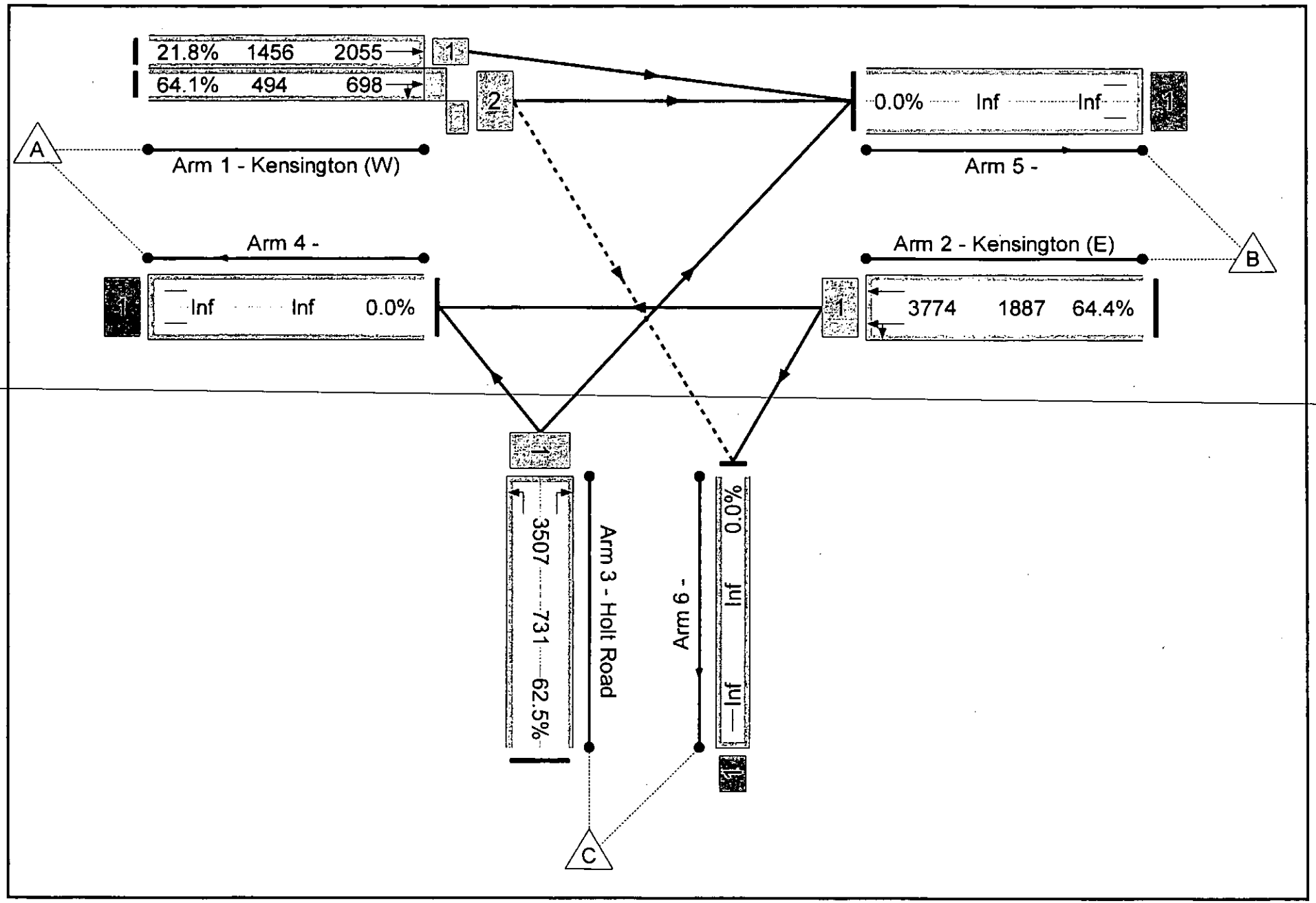
Stage	1	2	4
Duration	21	59	24
Change Point	0	27	90

Signal Timings Diagram



Junction Layout Diagram

Full Input Data And Results



Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington (W) Ahead	U	N/A	N/A	B		1	84	-	317	2055	2055	1456	21.8
1/2	Kensington (W) Ahead Right	O	N/A	N/A	B	A	1	84	21	317	1880	698	494	64.1
2/1	Kensington (E) Ahead Left	U	N/A	N/A	C		1	59	-	1216	3774	3774	1887	64.4
3/1	Holt Road Left Right	U	N/A	N/A	D		1	24	-	457	3507	3507	731	62.5
4/1		U	N/A	N/A	-		-	-	-	886	Inf	Inf	Inf	0.0
5/1		U	N/A	N/A	-			-	-	856	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A	-		-	-	-	565	Inf	Inf	Inf	0.0

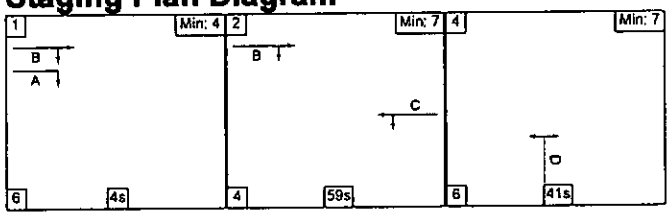
Link Num	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
1/1	317	317	-	-	-	0.5	0.1	-	0.7	7.6	3.6	0.1	3.7	
1/2	317	317	16	49	37	0.5	0.9	0.4	1.8	20.8	3.7	0.9	4.6	
2/1	1216	1216	-	-	-	7.5	0.9	-	8.4	24.8	29.7	0.9	30.6	
3/1	457	457	-	-	-	5.5	0.8	-	6.3	49.8	13.8	0.8	14.7	
4/1	886	886	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	856	856	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	565	565	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

Full Input Data And Results

PRC for Signalled Links (%):	39.7	Total Delay for Signalled Links (pcuHr):	17.20	
PRC Over All Links (%):	39.7	Total Delay Over All Links(pcuHr):	17.20	Cycle Time (s): 120

Scenario 6: '2011 ASSESSMENT PM'
Staging Plan 1: 'Staging Plan No. 1'
Flow Group 6: '2011 PM Pk with Dev'

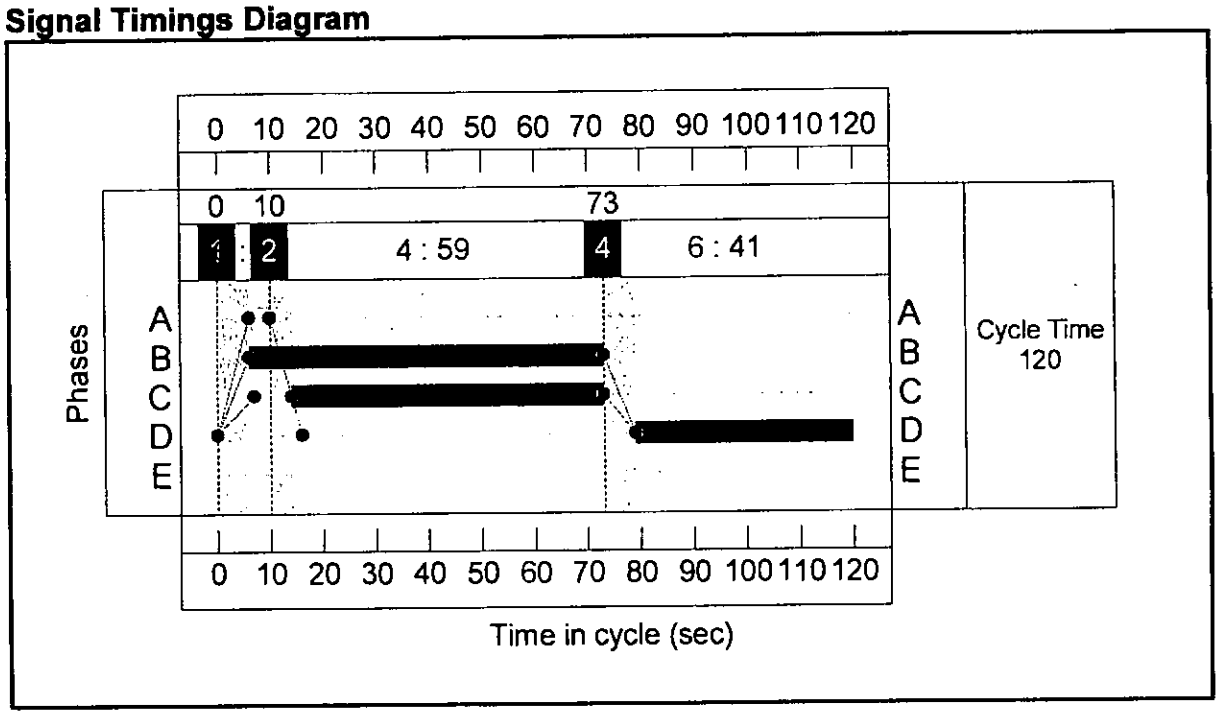
Staging Plan Diagram



Stage Timings

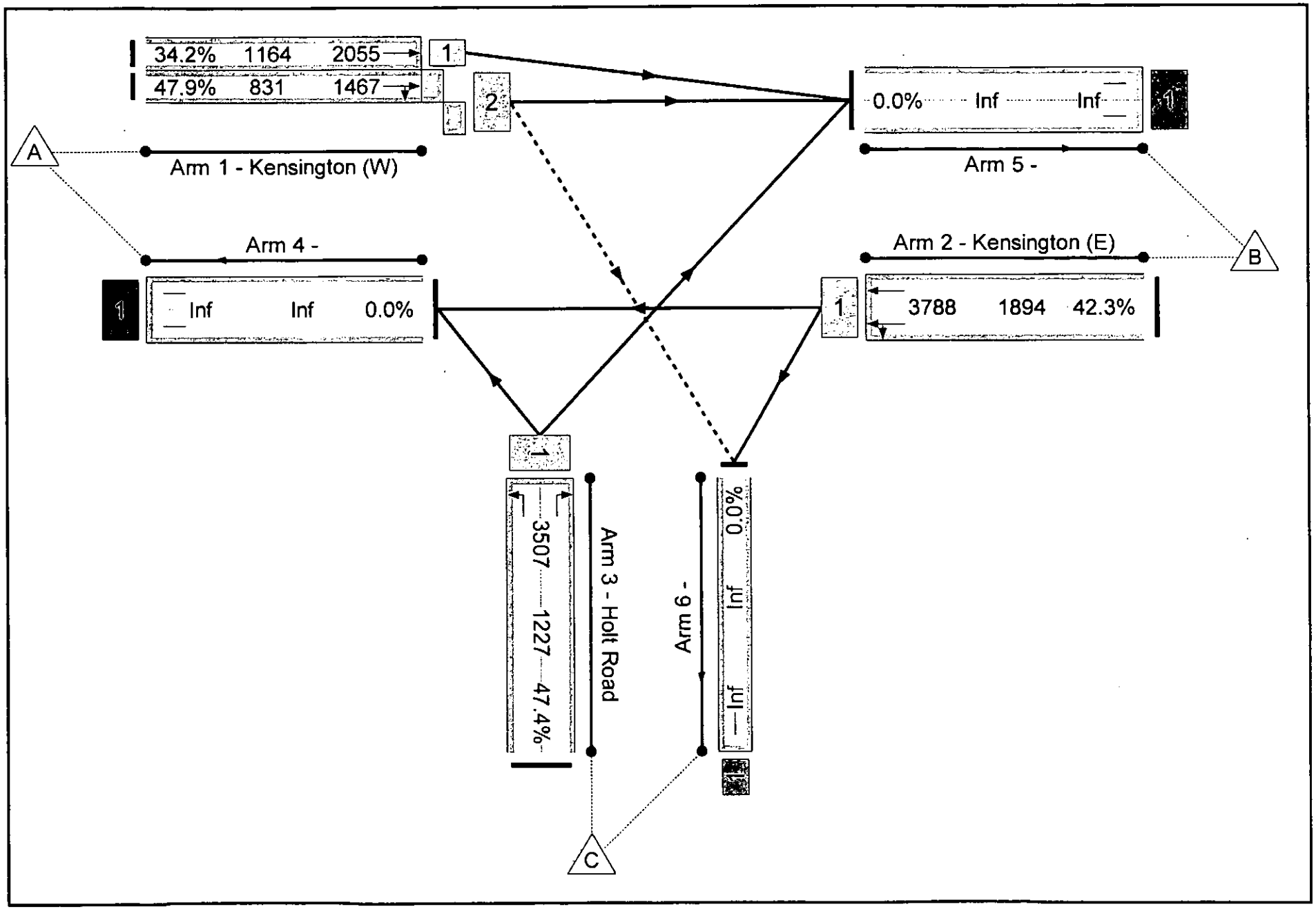
Stage	1	2	4
Duration	4	59	41
Change Point	0	10	73

Signal Timings Diagram



Junction Layout Diagram

Full Input Data And Results



Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington (W) Ahead	U	N/A	N/A	B		1	67	-	399	2055	2055	1164	34.2
1/2	Kensington (W) Ahead Right	O	N/A	N/A	B	A	1	67	4	399	1894	1467	831	47.9
2/1	Kensington (E) Ahead Left	U	N/A	N/A	C		1	59	-	801	3788	3788	1894	42.3
3/1	Holt Road Left Right	U	N/A	N/A	D		1	41	-	582	3507	3507	1227	47.4
4/1		U	N/A	N/A	-		-	-	-	691	Inf	Inf	Inf	0.0
5/1		U	N/A	N/A			-		-	1112	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A	-		-	-	-	377	Inf	Inf	Inf	0.0

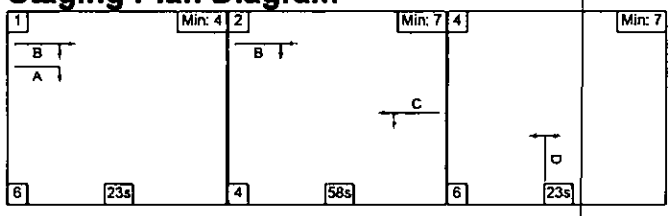
Link Num	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
1/1	398	398	-	-	-	1.5	0.3	-	1.8	16.3	7.1	0.3	7.3	
1/2	398	398	75	21	1	1.6	0.5	0.2	2.3	20.6	7.3	0.5	7.8	
2/1	801	801	-	-	-	4.2	0.4	-	4.6	20.7	16.9	0.4	17.3	
3/1	582	582	-	-	-	4.9	0.5	-	5.4	33.2	15.0	0.5	15.5	
4/1	691	691	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	1112	1112				0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

Full Input Data And Results

PRC for Signalled Links (%):	87.8	Total Delay for Signalled Links (pcuHr):	14.05	
PRC Over All Links (%):	87.8	Total Delay Over All Links(pcuHr):	14.05	Cycle Time (s): 120

Scenario 7: '2016 ASSESSMENT AM'
Staging Plan 1: 'Staging Plan No. 1'
Flow Group 7: '2016 AM Pk with Dev'

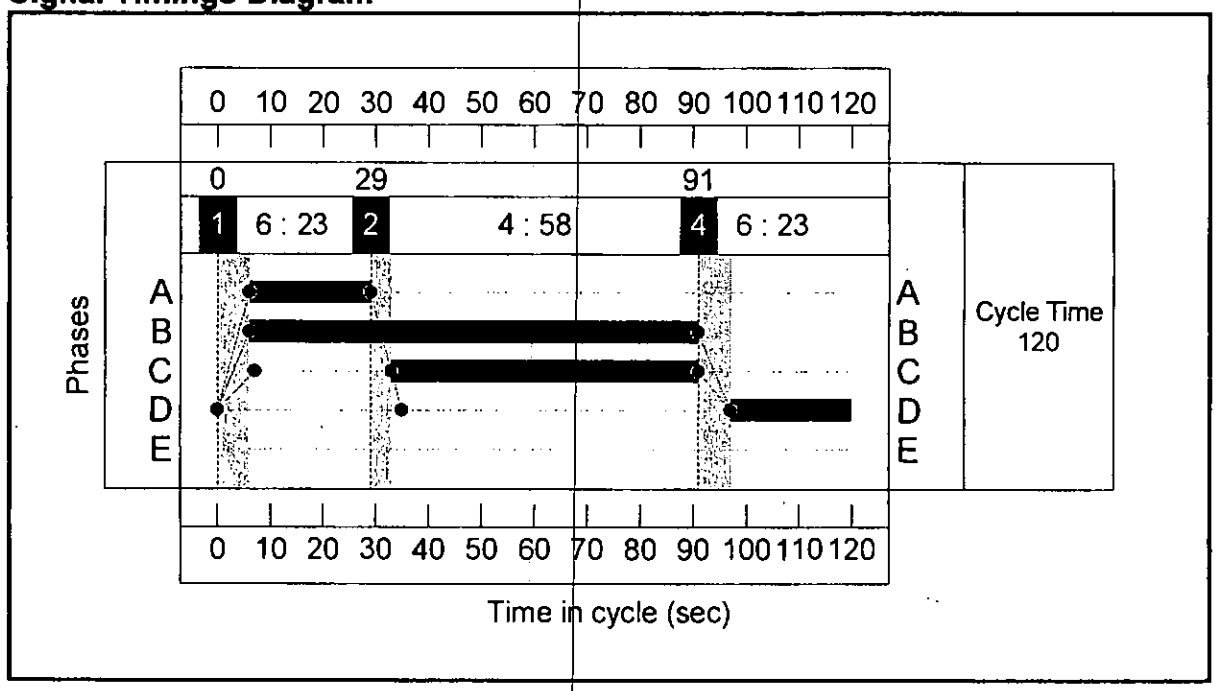
Staging Plan Diagram



Stage Timings

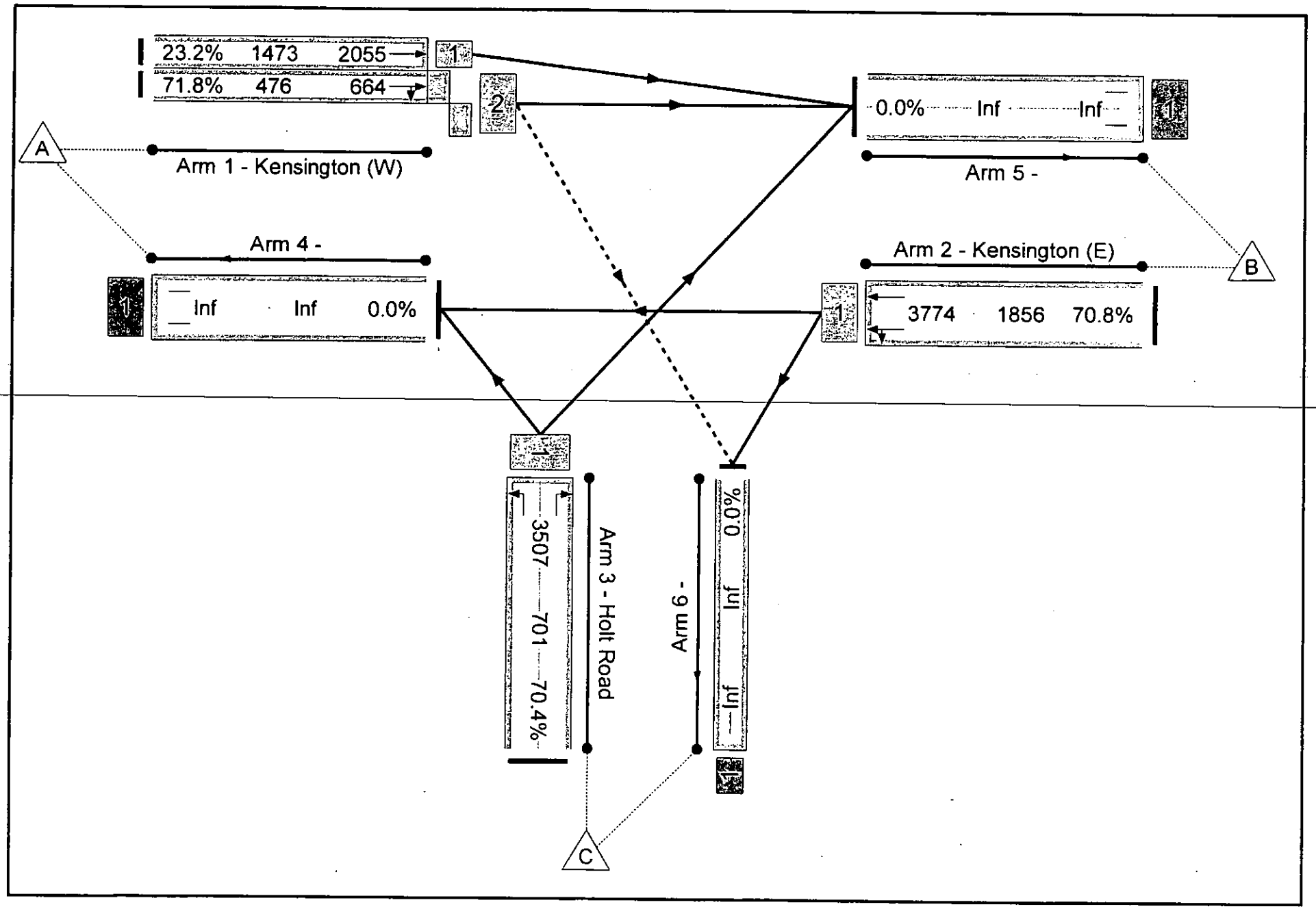
Stage	1	2	4
Duration	23	58	23
Change Point	0	29	91

Signal Timings Diagram



Junction Layout Diagram

Full Input Data And Results



Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington (W) Ahead	U	N/A	N/A	B		1	85	-	342	2055	2055	1473	23.2
1/2	Kensington (W) Ahead Right	O	N/A	N/A	B	A	1	85	23	342	1880	664	476	71.8
2/1	Kensington (E) Ahead Left	U	N/A	N/A	C		1	58	-	1313	3774	3774	1856	70.8
3/1	Holt Road Left Right	U	N/A	N/A	D		1	23	-	494	3507	3507	701	70.4
4/1		U	N/A	N/A	-		-	-	-	957	Inf	Inf	Inf	0.0
5/1		U	N/A	N/A	-		-	-	-	924	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A	-		-	-	-	610	Inf	Inf	Inf	0.0

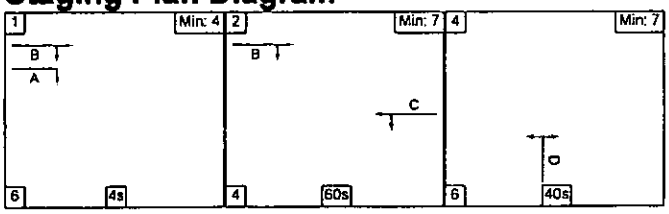
Link Num	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
1/1	342	342	-	-	-	0.5	0.2	-	0.7	7.4	3.8	0.2	4.0	
1/2	342	342	0	70	40	1.3	1.3	0.5	3.0	31.7	6.0	1.3	7.2	
2/1	1313	1313	-	-	-	8.7	1.2	-	9.9	27.1	33.9	1.2	35.1	
3/1	494	494	-	-	-	6.1	1.2	-	7.3	53.3	15.2	1.2	16.4	
4/1	957	957	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	924	924	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	610	610	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

Full Input Data And Results

PRC for Signalled Links (%):	25.3	Total Delay for Signalled Links (pcuHr):	20.90	
PRC Over All Links (%):	25.3	Total Delay Over All Links(pcuHr):	20.90	Cycle Time (s): 120

Scenario 8: '2016 ASSESSMENT PM'
Staging Plan 1: 'Staging Plan No. 1'
Flow Group 8: '2016 PM Pk with Dev'

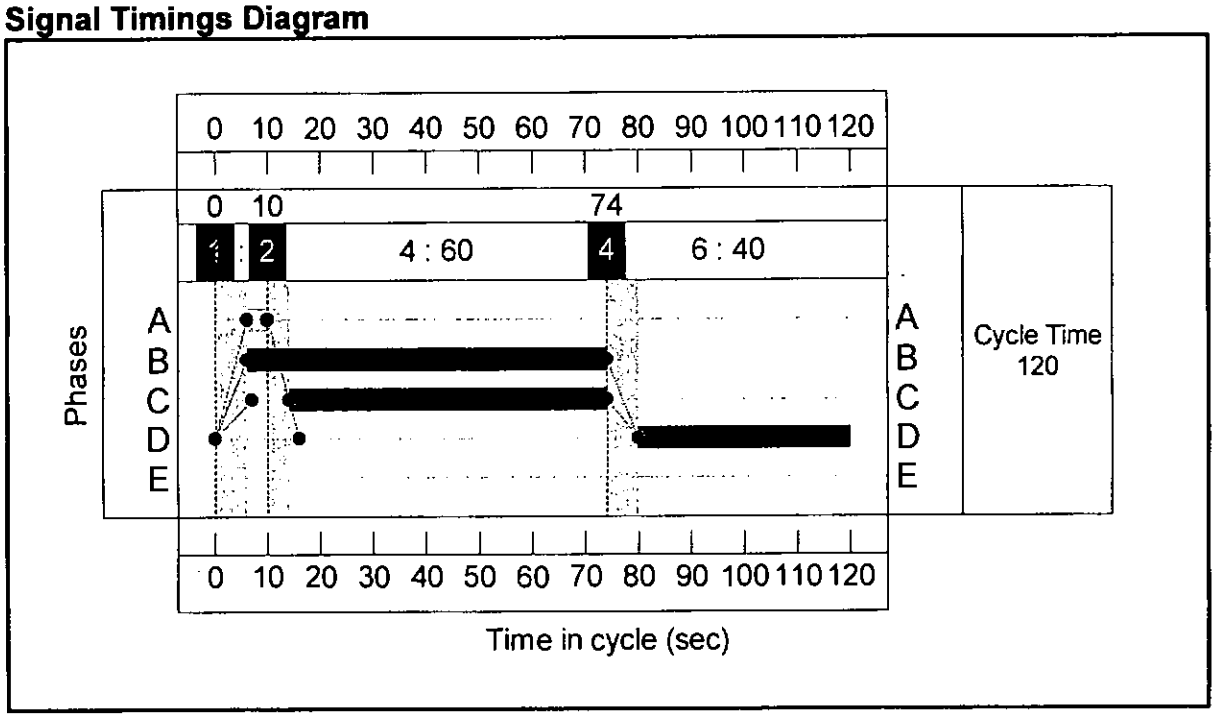
Staging Plan Diagram



Stage Timings

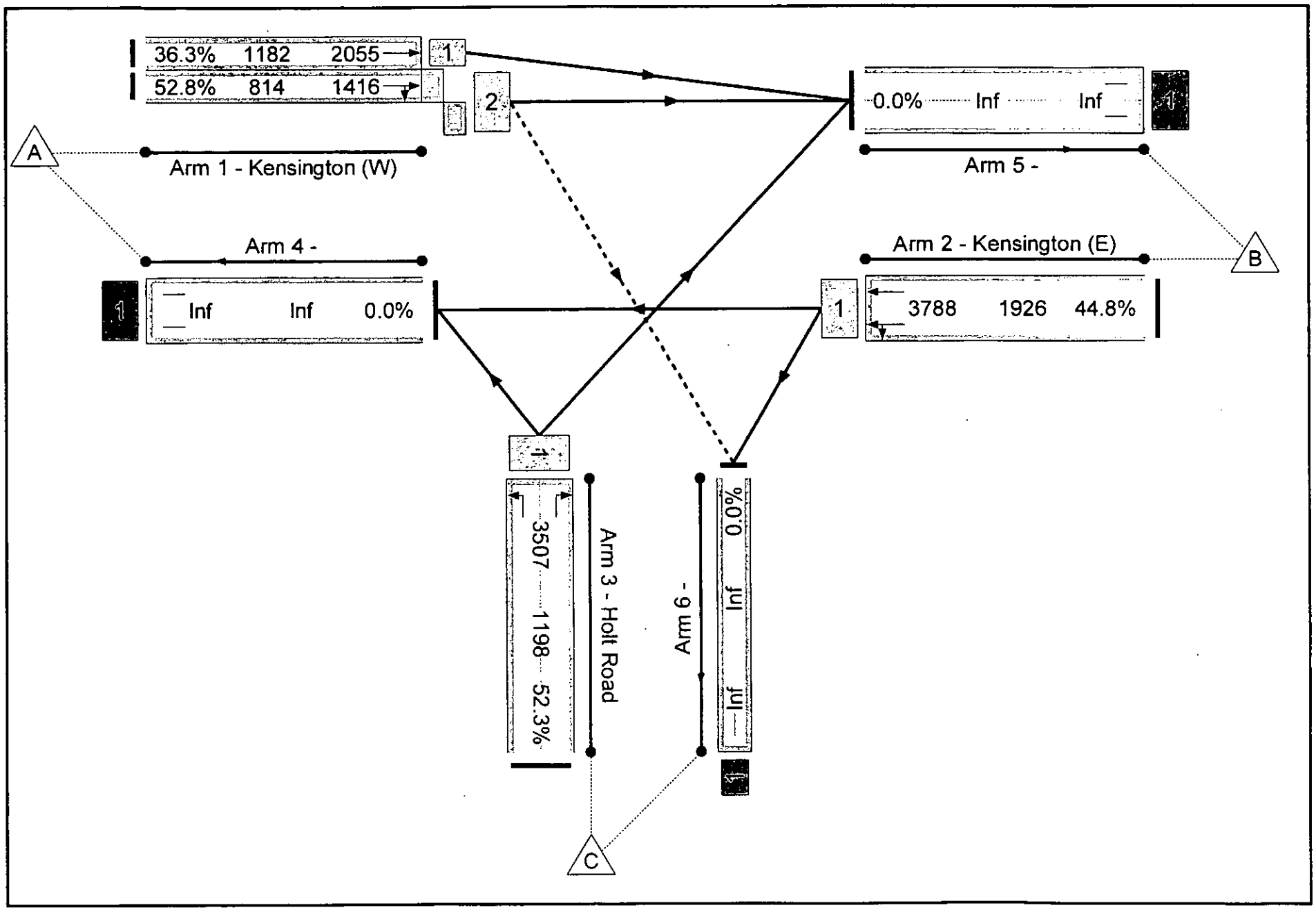
Stage	1	2	4
Duration	4	60	40
Change Point	0	10	74

Signal Timings Diagram



Junction Layout Diagram

Full Input Data And Results



Link Results

Link Num	Link Desc	Link Type	Stage Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Max Sat Flow (pcu/Hr)	Ave Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	Kensington (W) Ahead	U	N/A	N/A	B		1	68	-	430	2055	2055	1182	36.3
1/2	Kensington (W) Ahead Right	O	N/A	N/A	B	A	1	68	4	430	1894	1416	814	52.8
2/1	Kensington (E) Ahead Left	U	N/A	N/A	C		1	60	-	863	3788	3788	1926	44.8
3/1	Holt Road Left Right	U	N/A	N/A	D		1	40	-	627	3507	3507	1198	52.3
4/1		U	N/A	N/A	-		-	-	-	744	Inf	Inf	Inf	0.0
5/1		U	N/A	N/A	-					1198	Inf	Inf	Inf	0.0
6/1		U	N/A	N/A	-		-	-	-	407	Inf	Inf	Inf	0.0

Link Num	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
1/1	430	430	-	-	-	1.6	0.3	-	1.9	16.1	7.6	0.3	7.9	
1/2	430	430	83	21	1	1.8	0.6	0.2	2.6	21.9	10.1	0.6	10.7	
2/1	863	863	-	-	-	4.5	0.4	-	4.9	20.5	18.2	0.4	18.6	
3/1	627	627	-	-	-	5.5	0.5	-	6.1	34.8	16.7	0.5	17.3	
4/1	744	744	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	1198	1198	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	407	407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

Full Input Data And Results

PRC for Signalled Links (%):	70.6	Total Delay for Signalled Links (pcuHr):	15.50	
PRC Over All Links (%):	70.6	Total Delay Over All Links(pcuHr):	15.50	Cycle Time (s): 120

Savell Bird & Axon

part of the **WYG** group

RIVERSIDE CONSULTANCY SERVICES

PROPOSED RESIDENTIAL DEVELOPMENT, GILEAD STREET, LIVERPOOL

Residential Travel Plan

March 2008

Transport Planning Specialists

Croxley House, 14 Lloyd Street, Manchester, M2 5ND

Tel: +44(0)161 835 2400 Fax: +44(0)161 835 3400 Email: sba@sbax.co.uk www.sbax.co.uk

WYG Environment Planning Transport Ltd Registered in England Number: 3050297

Registered office: Arndale Court, Otley Road, Headingley, Leeds, LS6 2UJ

Savell Bird & Axon

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REPORT CONTROL

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Project: Proposed Residential Development, Gilead Street, Liverpool

Client: Riverside Consultancy Services

Job Number: N60952

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Primary Author	TSB	**Initialled:**
Contributor	MR	**Initialled:**
Review By	PJW	**Initialled:**

Issue	Date	Status	Checked for Issue
1	09/01/07	First Draft	
2	20/02/07	Revised Draft (following comments from Travelwise	
3	18/04/07	Revised Draft (following comments from Travelwise including Car Parking allocation	
4	21/05/07	Additional Revisions (following comments from Travelwise including Car Parking allocation	
5	22/06/07	Final Revisions (following comments from Travelwise)	
6	10/03/08	07 - Final version - date revised and sent to Annette Denning	

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PLANS

Plan 1 Site Location (Local Context)

Plan 2 2km Pedestrian Catchment

Plan 3 5km Cycle Catchment

1 TRAVEL PLAN

1.1 Introduction

1.1.1 This Travel Plan has been prepared to formally discharge condition number 18 attached to a recent planning consent for a residential development located on Gilead Street to the east of Liverpool City Centre.

1.1.2 The development proposals comprise a mix of private housing, shared ownership units and social housing and this Travel Plan has been prepared to apply to the whole site.

1.1.3 The Department for Transport (DfT) have produced guidance on the preparation of Travel Plans. The document, entitled "The Travel Plan Resources Pack for Employers" was published in September 2006. The guidance encourages employers to provide a number of components to the Travel Plans, this includes:

- Provide Public Transport Information – this could be in the form of billboards with the latest bus and rail timetables.
- Public Transport Discount from Rail and Bus Companies – negotiation on fare discount with PT operators could take place if patronage increases.
- New Terms and Conditions for employees – this could be in the form of altering company car policy, reducing mileage allowance and compressing the working month into fewer days, and therefore, fewer journeys.
- Implementing parking controls or restrictions for staff – this may force the members of staff to re-evaluate their modal choice.

1.1.4 It should be noted that this is a working document and is recognised as being the first stage in the Travel Plan process. This is primarily because, as the site is yet to be constructed and the dwellings are as yet unoccupied, it is not desirable to simply list a series of policies to be implemented once the site is fully occupied. Instead, it is preferable to provide a more detailed Plan that takes into account the work locations of residents and their current modes of travel during their daily lives i.e. work and leisure.

1.1.5 This document will set out the principle strategies of the Travel Plan which will evolve into a formally agreed document once the development is open and residents are occupying the dwellings.

1.1.6 The formal Travel Plan document will be submitted to and agreed with the local planning authority within 6 months of the occupation of the residential dwellings.

1.2 Development Site and its Location

1.2.1 The development site is located in Kensington, approximately 2 kilometres east of Liverpool City Centre. Land use within this area of Kensington is predominately residential.

1.2.2 **Plan 1** indicates the location of the development in relation to the surrounding wider area.

1.3 Development Proposals

1.3.1 It is proposed to develop the site for residential use for approximately 175 dwellings. Vehicular access to the proposed development will be provided off Gilead Street via two priority controlled junctions.

1.3.2 The development comprises a mix of private housing, shared ownership units and social housing, as follows:

- Private Housing – 106 dwellings;
- Shared Ownership – 24 units; and
- Social Housing – 45 units.

1.4 Car Parking and Cycle Provision

1.4.1 The scheme proposals comprise provision of a total of 204 spaces which equates to an overall provision based on 175 dwellings of 116%.

1.4.2 The parking proposals are as follows:

- 132 no. on street spaces which are not allocated as they form part of the adopted highway (these spaces will not be controlled);
- Phase 1 external garages 14 no. these will serve block D (a block for the elderly) and 2 courts of private dwellings;
- In curtilage garages 13 no. these will serve house types E1, F1 and L1 which are all private;

- Phase 2 rear parking courts 45 no. these are private and so could be allocated.

1.4.3 In addition, secure and covered cycle parking will be provided for all apartments in line with Cycle Parking Standards in SPG 8 which state 1 space per unit. These will be located next to main entrances to each of the apartment blocks in safe and easily accessible locations. This equates to a provision of 20 stands which will be covered and secure within the complex of the buildings.

1.5 Residential Use Travel Pack

1.5.1 It is an important and emerging principle in residential developments that where appropriate the implementation of travel plan type measures can establish a pattern of travel behaviour favouring sustainable modes from the inception of the development.

1.5.2 The proposed development is very well placed for encouraging access on foot or by cycle to a wide range of facilities. Similarly the provision of enhanced bus services will encourage choice of public transport as a primary means of travel for the development.

1.5.3 However in order to build on these excellent locational advantages it is recommended that a Travel Pack is provided for the occupants of each new residential unit.

1.5.4 The contents of such a travel pack would include the provision of up to date bus and rail time-table information in addition an identification of the location of nearby amenity facilities as part of the information supplied to prospective purchasers.

1.5.5 The adoption of such travel packs is recognised as being an important element in ensuring that access by non car modes is promoted from the earliest occupation of a residential development.

1.6 The Travel Plan

1.6.1 The Residential Travel Plan is a long-term strategy for reducing the dependence of residents on travel by private car.

1.6.2 The aims of the strategy are:

- To encourage residents and visitors to use alternatives to the private car;

- To increase the awareness of the advantages and potential for travel by more environmentally friendly modes, and
- To introduce a package of management measures that will facilitate travel by modes of transport other than the private car;

1.6.3 The Travel Plan will form part of the terms of the lease or occupancy of the dwellings and as such any future occupier will be aware in advance of what is required of them within the Travel Plan framework.

1.6.4 In addition to the management of residents travel represents an important element in pursuing the overall aims of the latest national guidance included within the DfT's Best Practice Guide; guidance is also contained within PPG13.

1.6.5 The sustainable transport objectives are summarised in paragraph 88 of PPG 13, which include:

- Reductions in car usage (particularly single occupancy journeys) and increased use of public transport, walking and cycling;
- Reduced traffic speeds and improved road safety and personal security particularly for pedestrians and cyclists; and
- More environmentally friendly delivery and freight movements, including home delivery services.

1.6.6 This document provides a framework for the preparation of a Travel Plan, which will be submitted by the Travel Plan Co-ordinator of the residential development within 6 months of occupation. The Travel Plan will demonstrate the strategy that the occupier is taking to assist the wider aims of sustainable transport.

1.6.7 A travel plan is effectively a combination of information, proposals and incentives designed to use most effectively the different means of travel available to residents.

1.7 Plan Administration

1.7.1 The administration of the Travel Plan will be the responsibility of the developer, in this case Riverside Consultancy Services. The developer will be required to designate a Travel Co-ordinator for the development. Essentially this co-ordinator will provide a liaison in implementing the plan with the residents and the local authority.

1.7.2 Details of the nominated Travel Co-ordinator will be submitted to the Planning and Highway Authority and the appropriate local bus companies. Similarly, the Co-ordinator will be advised of appropriate contact personnel at the development.

1.7.3 The Travel Co-ordinator will be the first point of contact for residents and other outside organisations in all matters regarding travel.

1.7.4 The post of the Travel Plan co-ordinator will continue for the life of the residential development and will be overseen by the housing management company (Riverside Consultancy Services). Prospective buyers will be made aware of the Travel Plan and its aims when viewing properties. For example, a Residents Travel Pack will form part of a Prospective Buyers Information Pack.

1.7.5 In addition, the Travel Plan will form part of the terms of the lease or occupancy of the dwellings and as such any future occupier will be aware in advance of what is required of them within the Travel Plan framework. This will ensure the long term continuation of the Travel Plan and ongoing commitment, even when a new purchaser moves in to a dwelling at the development.

1.7.6 The role of the Travel Plan co-ordinator will also be to develop and manage the Travel Plan for the site. The duties will include monitoring, reviewing targets and forming action plans to remedy areas where the Travel Plan in not performing. Annual progress reports will be prepared and submitted to Merseyside Travelwise, as well as Liverpool City Council.

2 NON CAR ACCESSIBILITY OF THE SITE

2.1 Introduction

2.1.1 In order to accord with the aspirations of Planning Policy Guidance (PPG) Note 13, entitled 'Transport', any new proposals should extend the choice in transport and secure mobility in a way that supports sustainable development.

2.1.2 The accessibility of the proposed development by the following modes of transport has, therefore, been considered.

i) Accessibility on Foot.

ii) Accessibility by Cycle.

iii) Accessibility by Bus.

iv) Accessibility by Train.

2.2 Accessibility on Foot

2.2.1 Provision for pedestrians within the vicinity of the proposed development site is good. Footways are also provided either side of Gilead Street which measure approximately 1.5 metres in width.

2.2.2 The distance of 2,000 metres has been derived from 'Planning for Sustainable Development' as an easy walking distance from a Town Centre, whilst the distance of 2 kilometres has been derived from the Institute of Highways of Transportation (IHT) document entitled 'Guidelines for Providing for Journeys on Foot' as a 'preferred maximum' distance for commuting, school and sight seeing journeys.

2.2.3 PPG13 also states that walking is the 'most important mode of travel at the local level and offers the greatest potential to replace short car journeys, particularly those under 2 kilometres.'

2.2.4 The 2000 metre catchment encompasses the whole of Kensington. The 2 kilometre catchment area also extends as far as Everton and Anfield to the north, Liverpool City Centre to the west, Victoria Park to the east and Princes Park in the south.

2.2.5 The 2 kilometre catchment encompasses several schools including the Kensington Primary Infant School, New Park Primary School and St. Michaels Catholic Primary School. The 'walking' catchment also encompasses the Aintree Racecourse Retail Park and Sefton Business Park which provide leisure and employment opportunities for residents of the proposed development.

2.2.6 In addition, Edge Hill Train Station is within the 2km catchment, and there is therefore potential for walking to form part of a longer journey along with other modes, as advocated within PPG13.

2.2.7 In conclusion, the location of the residential development would be well connected on foot to retail, educational, leisure, services and employment uses.

2.3 Accessibility by Cycle

2.3.1 An alternative mode of travel to the development could be achieved by bicycle. This would help encourage cycling as an alternative form of transport to access the site and accord with the aim of the Merseyside Cycle Strategy which was released in final draft format in May 2005. The cycling strategy aims:

"to promote and increase cycle use throughout Merseyside, by highlighting the benefits of cycling as a healthy sustainable mode of transport and through the development of infrastructure which is safe, convenient, efficient and attractive for cyclists."

2.3.2 As described in paragraph 78 of PPG13 'Cycling also has the potential to substitute for short car trips, particularly those under 5km, and form part of longer journeys by public transport'. In order to demonstrate the catchment area obtained by cycling, a 5 km catchment area plan has been produced.

2.3.3 The catchment available within a 5 km of the site encompasses the areas of Childwall, Aigburth and areas of Fazakerley.

2.3.4 In addition, the Liverpool Loop Line is located to the east of the development site within the 5 kilometre catchment which provides a vehicular free access to Aintree to the north and Halewood to the south.

2.3.5 The site is therefore considered to be accessible by cycle.

2.4 Accessibility by Bus

2.4.1 Bus stops are located on the A57 Kensington to the north of the development site, bus stops are also located on A5047 Edge Lane and Holt Lane to the south and east of the site respectively. Details of the bus services accessible at these bus stops are summarised in Table 2.1 below.

Service Number	Route	Max Frequency (per hour)			
		Mon-Fri		Sat	Sun
		Peak	Off Peak		
6	City Centre, Huyton, Warrington	2	2	2	1
6B	City Centre, Huyton, Prescot, Widnes	5 jrnys		5 jrnys	5 jrnys
7	City Centre, Edge Lane, Page Moss, Huyton	3	2	3	2
8	Liverpool City Centre, Huyton Circular	2	2	2	No service
8N	Liverpool City Centre, Huyton Circular	2	2	2	No service
9	Liverpool City Centre, Huyton Circular	3	3	2	No service
10	City Centre, Prescot, St. Helens	5	5	4	3
10A	City Centre, Prescot, St. Helens	4	4	4	2
10B	Prescot, Whiston Hospital, St. Helens	2	2	6 jrnys	6 jrnys
26	City Centre, Kensington Circular	7	7	6	2
801	Royal Liverpool Hospital - Aigburth Vale - Springwood	No service		No service	2 journeys

Table 2.1 – Summary of Bus Services Operating in the Vicinity of the Site

2.4.2 As Table 2.1 shows the proposed development is well connected by bus due to it being located in close proximity to A57 and A5047 high frequency bus routes to Liverpool City Centre. With up to 30 services per hour going into Liverpool City Centre in the peak period, corresponding to an average journey time of approximately 15 minutes.

2.4.3 It can be concluded then that the proposed development site is accessible by bus stops on A57 Kensington, the A5047 Edge Lane and Holt Lane the proposed development is accessible by bus with connections to a variety of destinations.

2.5 Accessibility by Rail

2.5.1 The nearest Mersey Rail station to the proposed development site is Edge Hill which is within the 2 kilometre pedestrian catchment and can therefore be considered as accessible by foot. Local rail services are available from Edge Hill to Huyton and Liverpool Lime Street, from Liverpool Lime Street services are provided to a wider range of regional destinations such as Southport, Liverpool Moorfields and Birkenhead.

2.5.2 In conclusion the proposed development site can be considered as being as being accessible by rail.

2.6 Non Car Accessibility Summary

2.6.1 Provision for pedestrians is good with wide footways. In addition there are a range of employment, educational, retail and leisure opportunities within walking distance of the site.

2.6.2 The proposed development site is well located to encourage travel by public transport. The site is located in close proximity to bus routes which provide frequent links to a range of destinations and Edge Hill train station is within walking distance.

2.6.3 The above has demonstrated that the proposed development is highly accessible by a range of sustainable travel modes.

3 MANAGEMENT MEASURES

3.1 Introduction

3.1.1 The following measures will be delivered through the plan by the Plan co-ordinator:

(i) Appointment of a Travel Co-ordinator.

(ii) Travel awareness.

(iii) Travel information.

(iv) Car sharing scheme.

(v) Car share club.

(vi) Cycle User Group.

Travel Co-ordinator

3.1.2 A Travel Plan co-ordinator to be appointed prior to occupation of the site, until all of the units are occupied this role is likely to be undertaken by a person employed by Riverside Consulting as this will show a commitment to the Travel Plan from an early stage.

3.1.3 The post of Travel Plan co-ordinator will continue for the life of the development.

3.1.4 Once the units are 75% occupied an Action Group will be created which involves local residents, Riverside Consulting, relevant authorities and special interest groups.

Travel Awareness

3.1.5 Residents will be made aware of the existence of the Travel Plan and a copy of the plan will be made available to residents on occupying a property.

3.1.6 Welcome Packs/Starter Packs for when new residents move into the development, prospective tenants will be made aware of the travel plan when viewing properties.

3.1.7 In addition marketing and sales staff for the development need to be aware of the requirements of the Travel Plan so that prospective tenants are aware of the choices for sustainable travel, such as bus services walking and cycling routes.

3.1.8 Targets for achieving a lower mode share by car and reducing the level of car usage by a given extent over a certain period will be established.

Travel Database

3.1.9 In order to establish the existing travel patterns of the residents, a travel survey will be carried out and will form the basis of the Final Travel Plan which will be submitted on 75% occupation of the dwellings.

3.1.10 The availability of this data will assist in more accurately defining travel requirements and the specific measures to be implemented to maximise the success of the plan.

Travel Information

3.1.11 Travel Information for residents will be provided for in numerous ways, such as websites, cycle and walking maps for the surrounding areas. As part of the Travel Information, residents will also be provided with personalised journey planners.

3.1.12 Some helpful websites to aid residents in planning their travel are:

- www.MerseyCarShare.org;
- www.merseytravel.gov.uk;
- www.travelline.org.uk; and
- www.nationalrail.co.uk

3.1.13 As mentioned previously, Welcome Packs/Starter Packs for when new residents move into the development, prospective tenants will be made aware of the travel plan when viewing properties.

3.1.14 In addition, information on existing key local services and publicity material from MerseyTravel's website and Traveline will be included.

3.1.15 Up to date bus service and timetable information as well as travel passes will be included in the 'Welcome Pack' for all new residents. A voucher will be included in the pack and residents will then request a pass to the value of the voucher rather than one given to everyone which may not get used. The value of the voucher will be £48.50 (the cost of a one month Solo pass for one area) and this figure has been agreed with the Merseyside TravelWise officers and Liverpool City Council.

3.1.16 There are currently several money saving options within the MerseyTravel network for both rail and bus services which will be offered to residents. For example, for bus users, the purchase of a Trio, Trioplus or solo ticket could be subsidised or in the case of rail users both rail passes and Term time Tickets could be subsidised. The full details of any season ticket offers can be found on the www.merseytravel.gov.uk website.

Car Sharing Scheme

3.1.17 The Travel Co-ordinator will promote the use of car sharing scheme and residents will be encouraged to join the Merseyside Car Share Scheme. This will include the promotion and use of the www.MerseyCarShare.org website which will not require the travel coordinator to maintain a database of residents.

3.1.18 Regular leaflets areas will be distributed within the residential development to allow potential car sharers to register an interest. The Travel Co-ordinator will be required to maintain a database of residents who register an interest in car sharing and will be required to facilitate success of the scheme. This will be discussed and determined prior to occupation so information can be included in the Welcome Pack.

Car Club

3.1.19 The creation of a car club to be investigated in a further attempt to succeed in cutting the number of single occupancy journeys. Free membership to the existing car club in the City (the WhizzGo scheme) could also be offered for example. The WhizzGo scheme offers individuals an alternative to using their own cars and more convenient, cheaper and greener travel. Free WhizzGo membership could be offered within the residents 'Welcome Packs' although this will be discussed and agreed with the scheme operator prior to occupation.

Cycle User Group

3.1.20 The Travel Co-ordinator will establish contacts with the cycling officers of the Local Authority to ensure input to the further development of Merseyside cycling strategy, a member of the Merseyside Cycling team will also be encouraged to join the Travel Plan Action Team to provide guidance.

Residents 'Welcome Pack'

3.1.21 As the units are occupied a 'Welcome Pack' will be provided to residents. The pack will include information contained within the Accessibility section of this Travel Plan.

3.1.22 The 'Welcome Pack' will include details on the intentions of the Travel Plan and why the Travel Plan has been produced, as well as contacts for the Travel Plan co-ordinator. The packs will include current information on walking and cycling routes in the area and information on current bus services.

3.1.23 In addition, residents will be offered personalised journey planners, which will be renewable with new tenants. As an on-going part of the monitoring process the 'Welcome Pack' will be reviewed and updated annually. Information regarding any changes to the bus services in the area will be distributed by leaflet drops to the residents.

3.2 Target Setting

3.2.1 This section of the Travel Plan will provide details of the targets against which the success of the Plan in achieving its objectives will be measured.

3.2.2 The targets are designed to be quantifiable, be relevant to both measures and objectives identified in the Plan and to include time scale.

3.2.3 In order to set the targets further information will have to be obtained in order to establish against which to set the targets. This information will be related to existing patterns of movement (i.e. the proportion of residents who travel to their workplace by non-car mode) and may be obtained from sources such as the National Travel Survey and the National Census.

3.2.4 An initial review of the census data shows that car ownership in the vicinity of the application site is low. According to the 2001 Census, on average, 25% of households within Britain did not have access to a car/van. However, within Kensington, the ward in which the application is located and where the majority of possible staff and customers reside, 66% of households do not have a car/van.

3.2.5 Therefore, as the opportunity for residents to access a car does not exist, car parking demand will be lower.

3.2.6 The main source of baseline information would however come from the residents travel survey, which will be completed on 75% occupation of the residential units.

3.2.7 Suitable targets for reducing the need to travel by private car will be included within the submitted plan.

Potential Targets

3.2.8 Targets which according to the DfT may potentially be included in the Travel Plan include the following:

- **Car trips per household** - targets set on the basis of predicted trip rates for the development.
- **Uptake of alternatives -** Targets for bus patronage, membership and use of car clubs, registration and participation in car share scheme, cycle counts and pedestrian counts.
- **Car ownership and mode of travel** - trip based targets may be supplemented by targets related to car ownership, travel to work by mode and travel to school by mode.
- **Travel Plan awareness targets** - for example, a target can be established to ensure a significant percentage of residents are aware of the travel plan and its purpose.

3.3 Plan Monitoring and Assessment

3.3.1 To enable the success of the Travel Plan to be established, the Travel Co-ordinator will be responsible for ongoing monitoring and regular travel surveys to an agreed timetable.

3.3.2 The timescale for Travel Plan reviews and repeat travel surveys will be included within the Final Travel Plan.

3.3.3 DfT best practice guidelines state that monitoring of the travel plan should normally take place on the following basis:

- Early on in the occupation period of the site - for example, triggered by 75% occupancy to provide the information base for the review of the plan;
- Annually or at least every two years thereafter to provide ongoing information on the impact of the plan. Monitoring should take place over a wide range of time periods to reflect the different pattern of journeys that can be generated by residential development.

3.3.4 Information gathered as part of the continuous monitoring process will be made available to the local authority to assist the assessment of ongoing modal split.

3.3.5 Future strategies for further delivering plan objectives can be considered in partnership between occupiers and the Local Planning and Highway Authorities and Liverpool City Council.

3.3.6 The monitoring and assessment of the plan will include the submission of annual progress reports detailing the results of the travel surveys with regards to targets, budgets general effectiveness and current initiatives. This will allow effective measures to be promoted and increased while ineffective measures can be revised and rectified. New initiatives for the coming year will also be contained within the report and submitted to Merseyside TravelWise officers and Liverpool City Council.

4 CONCLUSIONS

4.1.1 Liverpool City Council requires that a Travel Plan should be produced to support the Transport Assessment and the planning application for the social housing element of the proposed residential use for a site off Gilead Street in Liverpool. This Travel Plan has been produced using National Policy (PPG13) and is compatible with Local Policy Guidelines.

4.1.2 This Travel Plan has detailed the proposals associated with the development site to promote sustainable modes of travel and reduce the dependency of the private car. Additionally, the Travel Plan has presented a series of measures to be implemented to promote car sharing thus reducing the number of single car occupancy trips.

4.1.3 The information contained within the Travel Plan and details of sustain able modes of transport will be accessible to residents and visitors to the development. The aim of the Travel Plan is:

v) to encourage residents to use sustainable modes of transport to access the site;

vi) reduce the reliance on single car occupancy journeys;

vii) reduce the demand for peak hour deliveries; and

viii) generally reduce traffic related pollution and noise.

4.1.4 A wide range of measures and actions will be used to encourage car –sharing, public transport use, cycling and walking. The Travel Plan coordinator will ensure the Travel Plan is implemented and is operating effectively.

4.1.5 A detailed site audit will be undertaken within six months and following this, specific targets will be set and agreed with the Travel Plan team at Liverpool City Council and the Merseyside Travelwise Team. The Travel Plan coordinator (in this case Riverside Consultancy Services) will be responsible for monitoring the success of the plan.

Appendix E. TRICS output

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
Category : E - CLINICS
VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	DC	DORSET	1 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
	LN	LINCOLNSHIRE	1 days
11	SCOTLAND		
	GC	GLASGOW CITY	1 days
	NL	NORTH LANARKSHIRE	1 days

Filtering Stage 2 selection:

Parameter: Gross floor area
Range: 1175 to 4000 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/03 to 10/11/10

Selected survey days:

Tuesday	1 days
Wednesday	2 days
Thursday	1 days
Friday	1 days

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

Selected Locations:

Town Centre	1
Edge of Town Centre	2
Suburban Area (PPS6 Out of Centre)	2

Selected Location Sub Categories:

Retail Zone	1
Built-Up Zone	2
No Sub Category	2

Filtering Stage 3 selection:

Use Class:

C3	1 days
D1	4 days

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
15,001 to 20,000	1 days
25,001 to 50,000	1 days

Filtering Stage 3 selection (Cont.):

Population within 5 miles:

5,001 to 25,000	2 days
75,001 to 100,000	1 days
250,001 to 500,000	2 days

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 days

Travel Plan:

No	5 days

LIST OF SITES relevant to selection parameters

1 DC-05-E-01 MEDICAL CENTRE, SHAFTESBURY DORSET
SALISBURY ROAD

SHAFTESBURY
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 1790 sqm
Survey date: TUESDAY 02/09/03 Survey Type: MANUAL

2 DS-05-E-01 CHILDRENS CLINIC, NR CHESTFLD DERBYSHIRE
HIGH STREET
CLAY CROSS
NEAR CHESTERFIELD
Town Centre
No Sub Category
Total Gross floor area: 1175 sqm
Survey date: FRIDAY 23/06/06 Survey Type: MANUAL

3 GC-05-E-01 HEALTH CENTRE, GLASGOW GLASGOW CITY
SALAMANCA STREET

GLASGOW
Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Gross floor area: 1725 sqm
Survey date: WEDNESDAY 11/06/03 Survey Type: MANUAL

4 LN-05-E-01 CLINIC, GRANTHAM LINCOLNSHIRE
AVENUE ROAD

GRANTHAM
Edge of Town Centre
Built-Up Zone
Total Gross floor area: 1400 sqm
Survey date: WEDNESDAY 10/11/10 Survey Type: MANUAL

5 NL-05-E-01 HEALTH CENTRE, COATBRIDGE NORTH LANARKSHIRE
CENTRE PARK COURT

COATBRIDGE
Edge of Town Centre
Retail Zone
Total Gross floor area: 4000 sqm
Survey date: THURSDAY 12/06/08 Survey Type: MANUAL

TRIP RATE for Land Use 05 - HEALTH/E - CLINICS

VEHICLES

Calculation factor: 100 sqm

Estimated TRIP rate value per 2500 SQM shown in shaded columns
BOLD print indicates peak (busiest) period

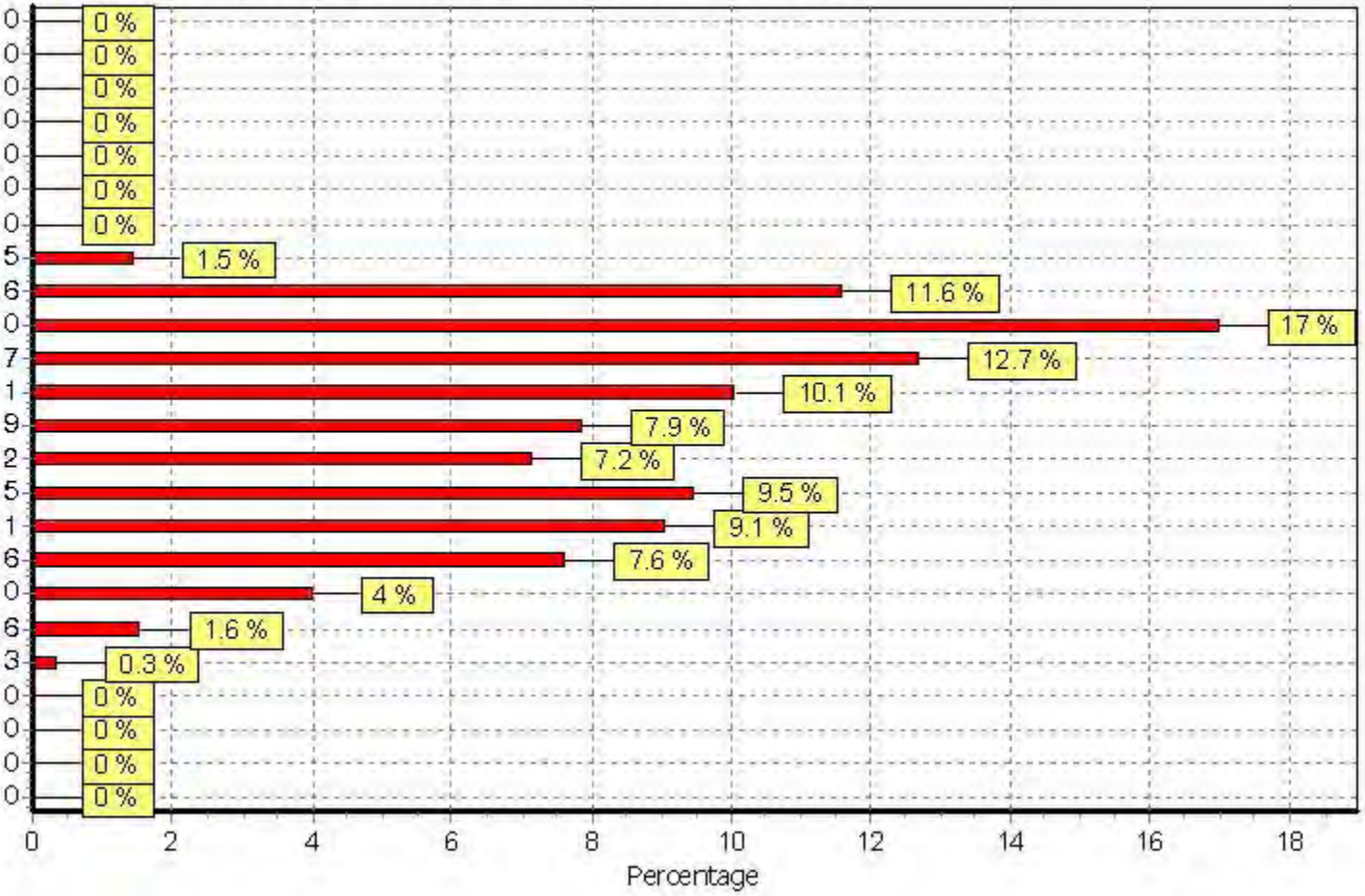
	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 01:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
01:00 - 02:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
02:00 - 03:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
03:00 - 04:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
04:00 - 05:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
05:00 - 06:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
06:00 - 07:00	1	1400	0.000	0.000	1	1400	0.000	0.000	1	1400	0.000	0.000
07:00 - 08:00	5	2018	0.278	6.938	5	2018	0.050	1.239	5	2018	0.328	8.177
08:00 - 09:00	5	2018	2.220	55.500	5	2018	0.644	16.105	5	2018	2.864	71.605
09:00 - 10:00	5	2018	3.251	81.269	5	2018	2.488	62.190	5	2018	5.739	143.459
10:00 - 11:00	5	2018	2.428	60.704	5	2018	2.765	69.128	5	2018	5.193	129.832
11:00 - 12:00	5	2018	1.923	48.067	5	2018	2.111	52.775	5	2018	4.034	100.842
12:00 - 13:00	5	2018	1.506	37.661	5	2018	1.615	40.387	5	2018	3.121	78.048
13:00 - 14:00	5	2018	1.368	34.192	5	2018	1.318	32.953	5	2018	2.686	67.145
14:00 - 15:00	5	2018	1.814	45.342	5	2018	1.784	44.599	5	2018	3.598	89.941
15:00 - 16:00	5	2018	1.734	43.360	5	2018	1.833	45.837	5	2018	3.567	89.197
16:00 - 17:00	5	2018	1.457	36.422	5	2018	2.161	54.014	5	2018	3.618	90.436
17:00 - 18:00	5	2018	0.763	19.078	5	2018	1.596	39.891	5	2018	2.359	58.969
18:00 - 19:00	5	2018	0.297	7.433	5	2018	0.595	14.866	5	2018	0.892	22.299
19:00 - 20:00	2	1595	0.063	1.567	2	1595	0.157	3.918	2	1595	0.220	5.485
20:00 - 21:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
21:00 - 22:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
22:00 - 23:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
23:00 - 24:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
Total Rates:			19.102	477.533			19.117	477.902			38.219	955.435

Parameter summary

Trip rate parameter range selected:	1175 - 4000 (units: sqm)
Survey date date range:	01/01/03 - 10/11/10
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

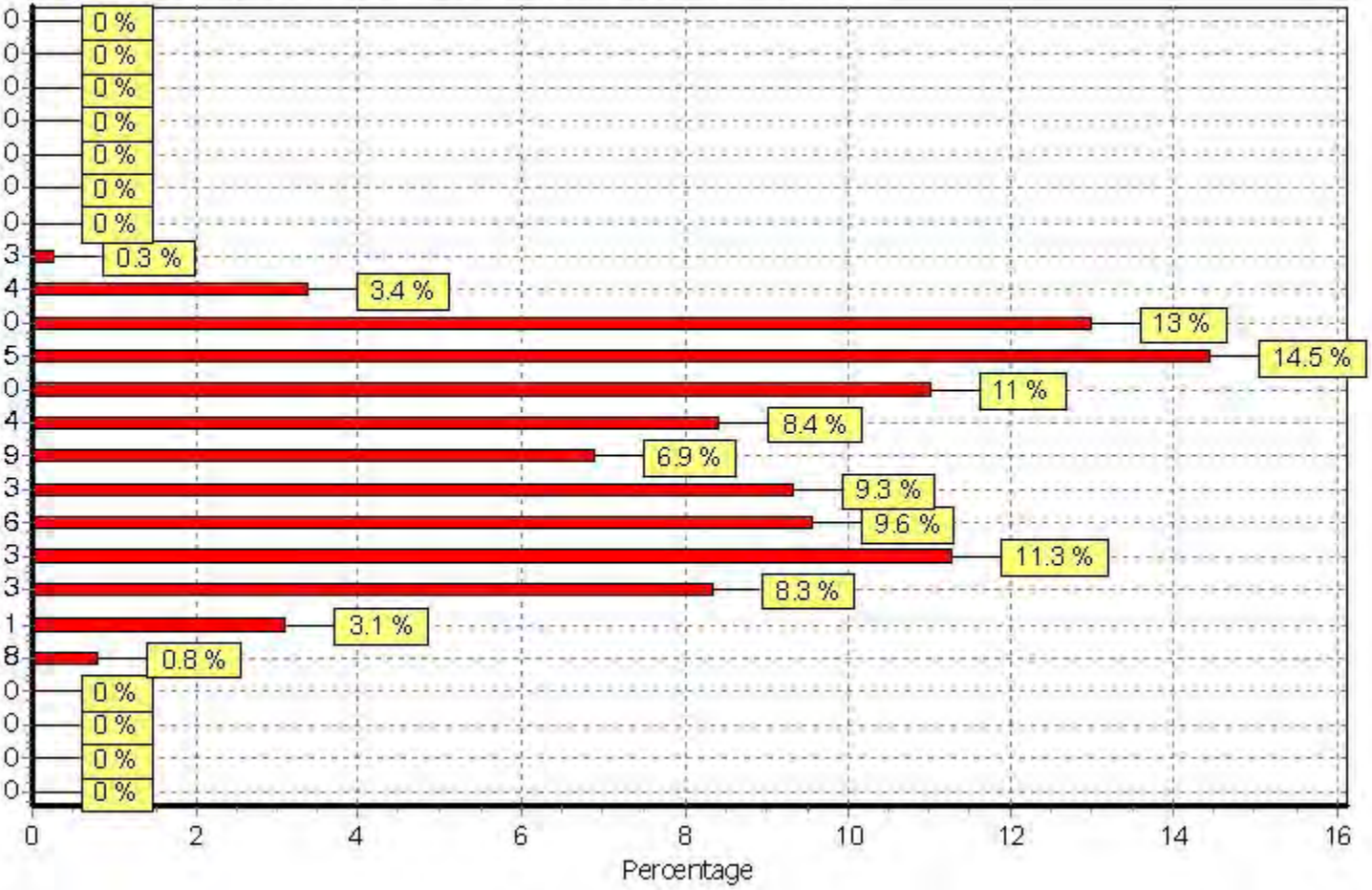
TRIP RATE GRAPH - ARRIVALS 05 - HEALTH E - CLINICS VEHICLES

TIME	RATE	%
00:00-01:00	0.000	0.0
01:00-02:00	0.000	0.0
02:00-03:00	0.000	0.0
03:00-04:00	0.000	0.0
04:00-05:00	0.000	0.0
05:00-06:00	0.000	0.0
06:00-07:00	0.000	0.0
07:00-08:00	0.278	1.5
08:00-09:00	2.220	11.6
09:00-10:00	3.251	17.0
10:00-11:00	2.428	12.7
11:00-12:00	1.923	10.1
12:00-13:00	1.506	7.9
13:00-14:00	1.368	7.2
14:00-15:00	1.814	9.5
15:00-16:00	1.734	9.1
16:00-17:00	1.457	7.6
17:00-18:00	0.763	4.0
18:00-19:00	0.297	1.6
19:00-20:00	0.063	0.3
20:00-21:00	0.000	0.0
21:00-22:00	0.000	0.0
22:00-23:00	0.000	0.0
23:00-24:00	0.000	0.0


0 %
1.5 %
11.6 %
17 %
12.7 %
10.1 %
7.9 %
7.2 %
9.5 %
9.1 %
7.6 %
4 %
1.6 %
0.3 %
0 %
0 %
0

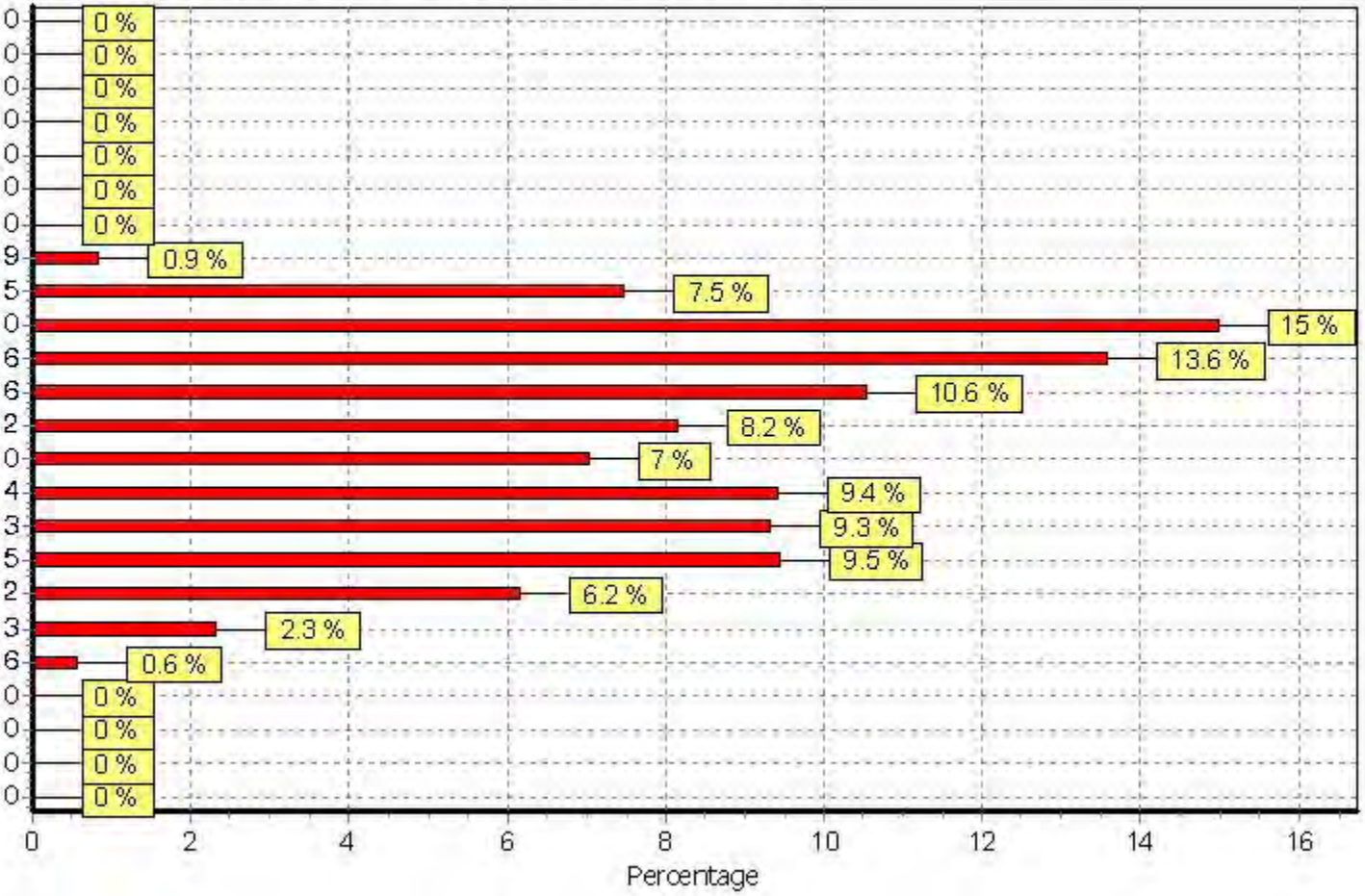
TRIP RATE GRAPH - DEPARTURES 05 - HEALTH E - CLINICS VEHICLES

TIME	RATE	%
00:00-01:00	0.000	0.0
01:00-02:00	0.000	0.0
02:00-03:00	0.000	0.0
03:00-04:00	0.000	0.0
04:00-05:00	0.000	0.0
05:00-06:00	0.000	0.0
06:00-07:00	0.000	0.0
07:00-08:00	0.050	0.3
08:00-09:00	0.644	3.4
09:00-10:00	2.488	13.0
10:00-11:00	2.765	14.5
11:00-12:00	2.111	11.0
12:00-13:00	1.615	8.4
13:00-14:00	1.318	6.9
14:00-15:00	1.784	9.3
15:00-16:00	1.833	9.6
16:00-17:00	2.161	11.3
17:00-18:00	1.596	8.3
18:00-19:00	0.595	3.1
19:00-20:00	0.157	0.8
20:00-21:00	0.000	0.0
21:00-22:00	0.000	0.0
22:00-23:00	0.000	0.0
23:00-24:00	0.000	0.0



TRIP RATE GRAPH - TOTALS 05 - HEALTH E - CLINICS VEHICLES

TIME	RATE	%
00:00-01:00	0.000	0.0
01:00-02:00	0.000	0.0
02:00-03:00	0.000	0.0
03:00-04:00	0.000	0.0
04:00-05:00	0.000	0.0
05:00-06:00	0.000	0.0
06:00-07:00	0.000	0.0
07:00-08:00	0.328	0.9
08:00-09:00	2.864	7.5
09:00-10:00	5.739	15.0
10:00-11:00	5.193	13.6
11:00-12:00	4.034	10.6
12:00-13:00	3.121	8.2
13:00-14:00	2.686	7.0
14:00-15:00	3.598	9.4
15:00-16:00	3.567	9.3
16:00-17:00	3.618	9.5
17:00-18:00	2.359	6.2
18:00-19:00	0.892	2.3
19:00-20:00	0.220	0.6
20:00-21:00	0.000	0.0
21:00-22:00	0.000	0.0
22:00-23:00	0.000	0.0
23:00-24:00	0.000	0.0



Appendix F. Traffic Flow Diagrams

Project No: 292453
Project Name: Kensington Neighbourhood Health Centre

Task:	Flow Diagrams
Spreadsheet Content:	Flow Diagrams

File Created

Author:	LMC	**Date:**	20/04/2011
Checker:	MO	**Date:**	21/04/2011

Worksheets

Name	Content
NAME OF WORKSHEETS ENTERED HERE	BRIEF DESCRIPTION OF CONTENT
Self explanatory	

QES Notes

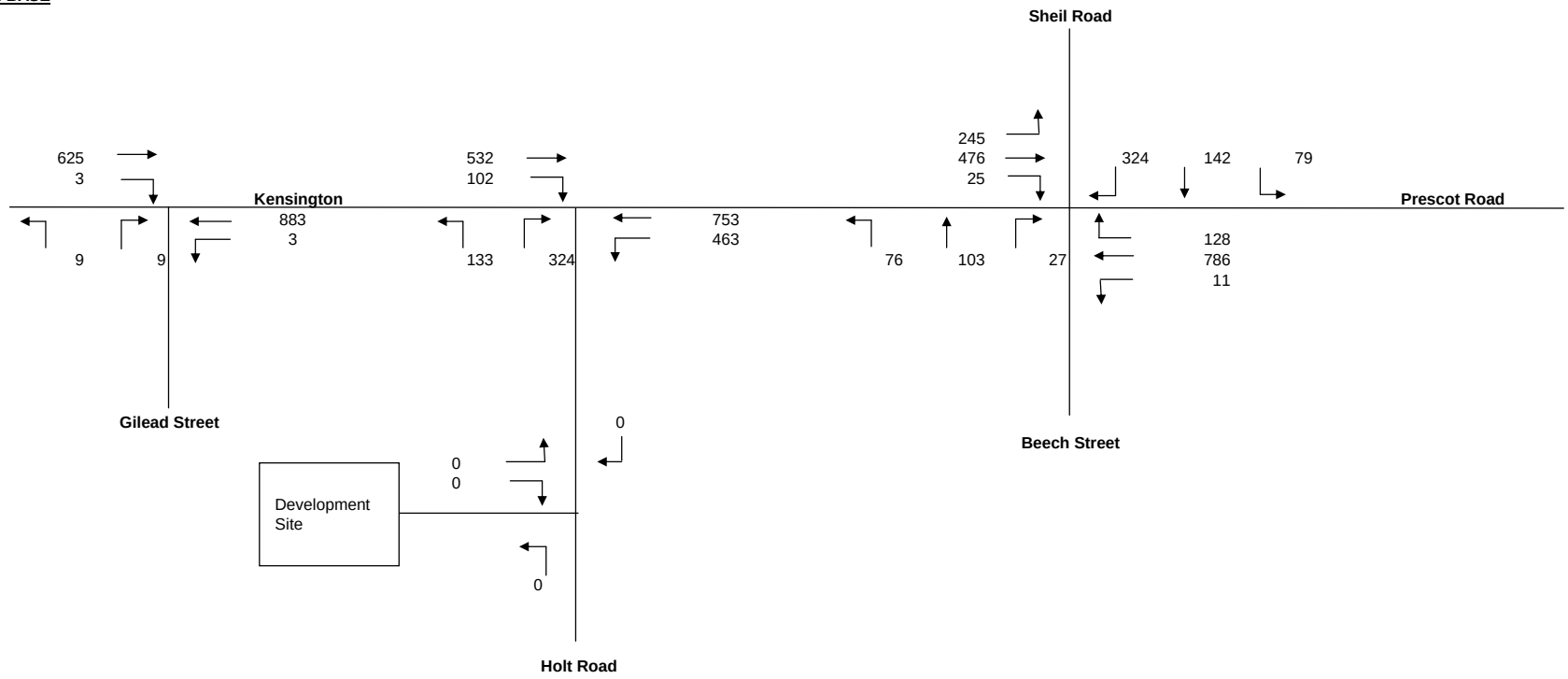
QES Notes
REPORT HERE ON CHECKING, ISSUES ARISING
Checked - Calcs and cell links are correct

Supporting Spreadsheets

xls Name	
ENTER HERE SUPPORTING SPREADSHEETS TO THE ANALYSIS	
http://pims01/pims/llisapi.dll/Open/1472974734	SBA Transport Statement

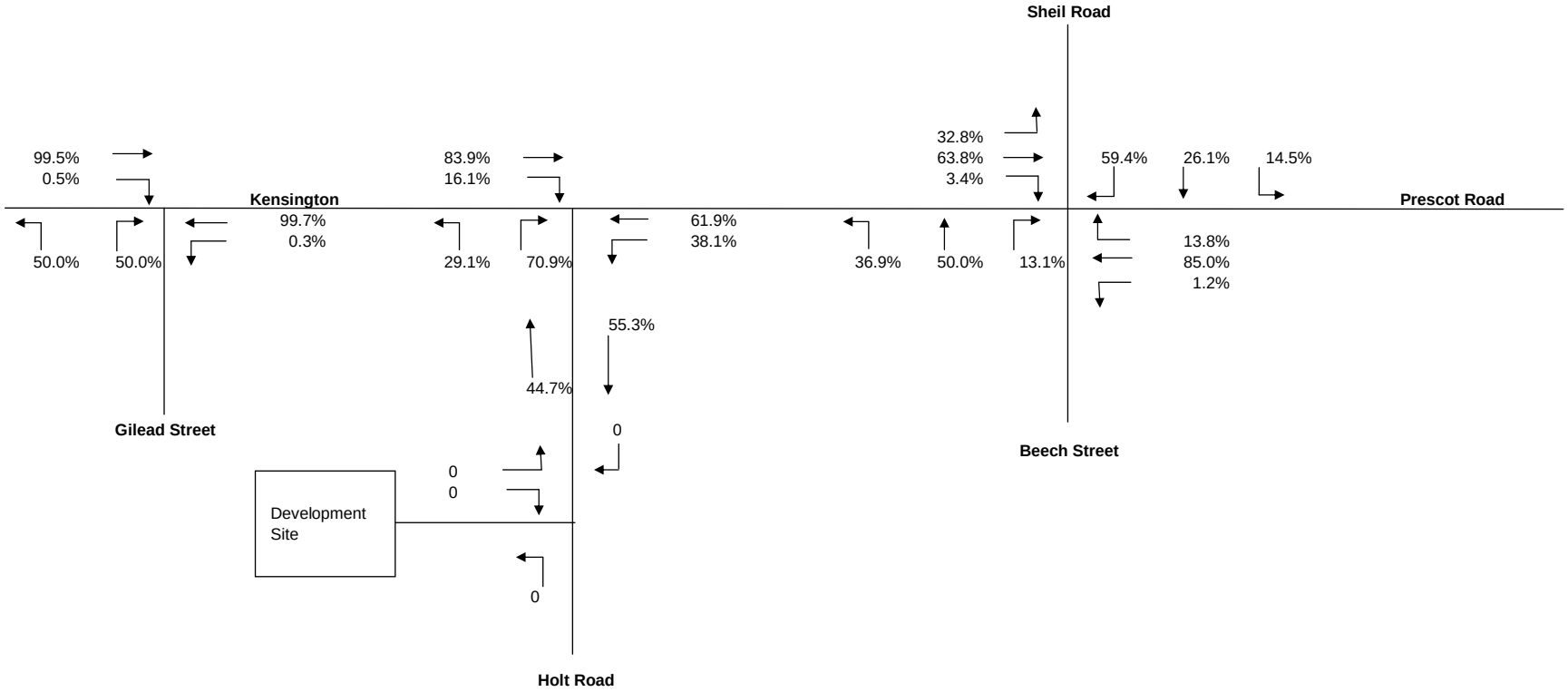
Data from Figure 17 of SBA report PIMS LINK http://pims01/pims/llisapi.dll/Open/1472974734

Diagram 1 - 2011 AM BASE



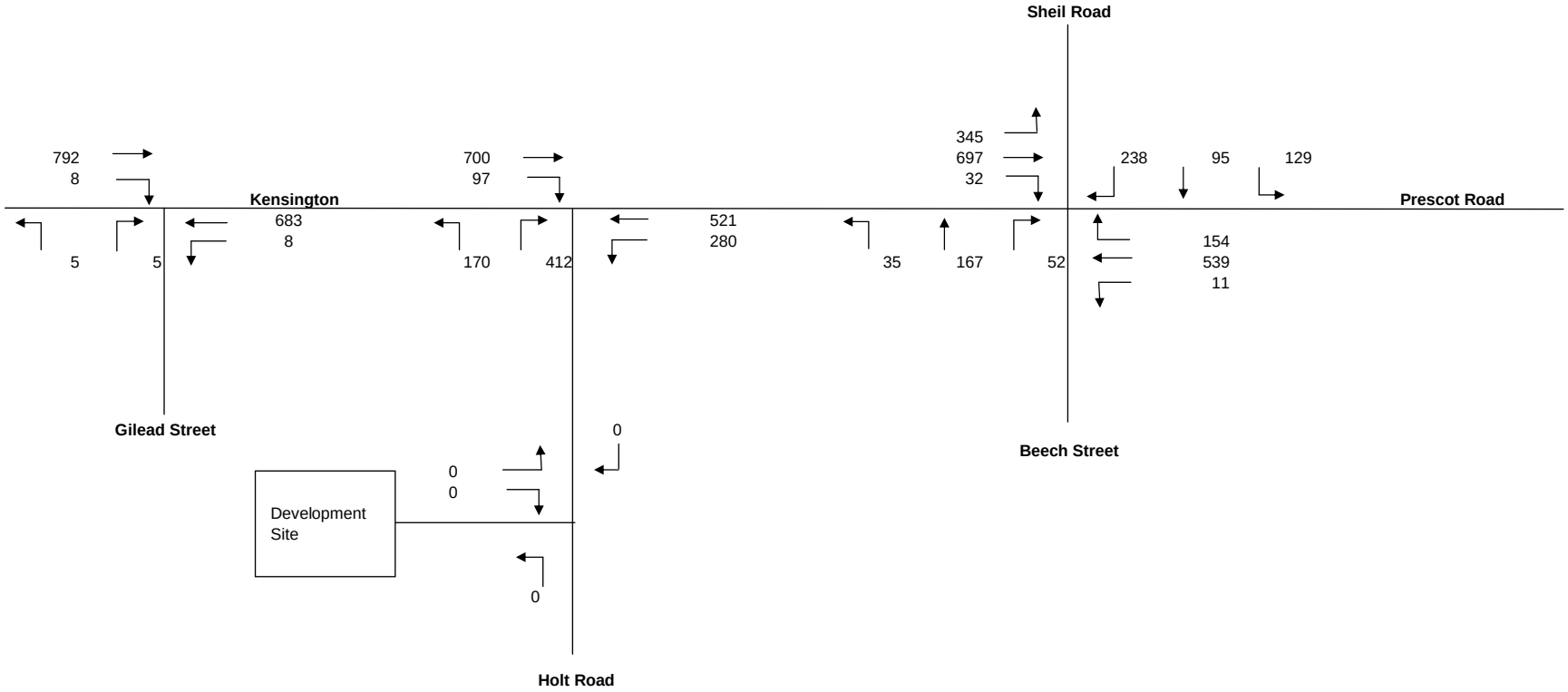
Data from Figure 17 of SBA report PIMS LINK http://pims01/pims/llisapi.dll/Open/1472974734

Diagram 2 - 2011 AM Turning proportions



Data from Figure 17 of SBA report PIMS LINK http://pims01/pims/llisapi.dll/Open/1472974734

Diagram 3 - 2011 PM BASE



Data from Figure 17 of SBA report PIMS LINK http://pims01/pims/llisapi.dll/Open/1472974734

Diagram 4 - 2011 PM Turning proportions

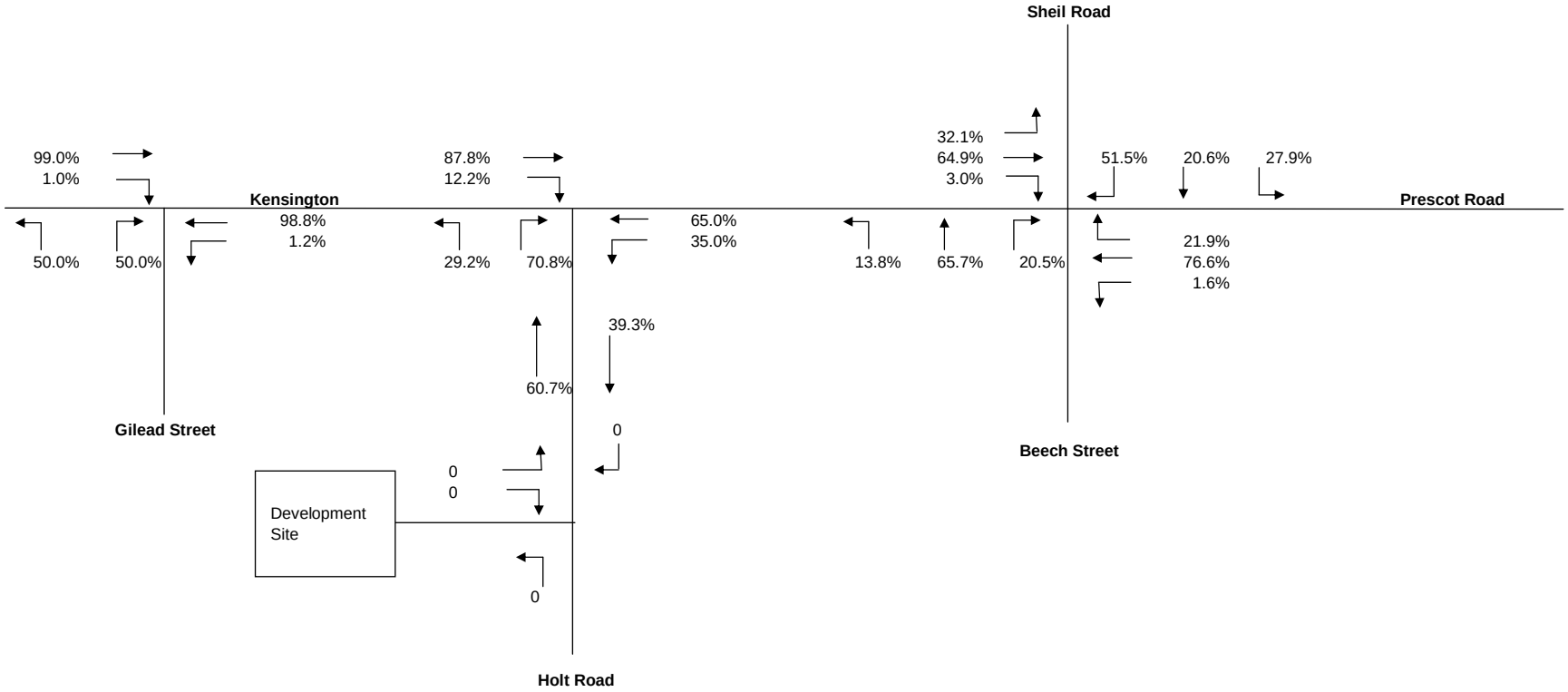


Diagram 5 - 2013 AM Base

Time Period	Growth Factor
2011-2013	1.0428

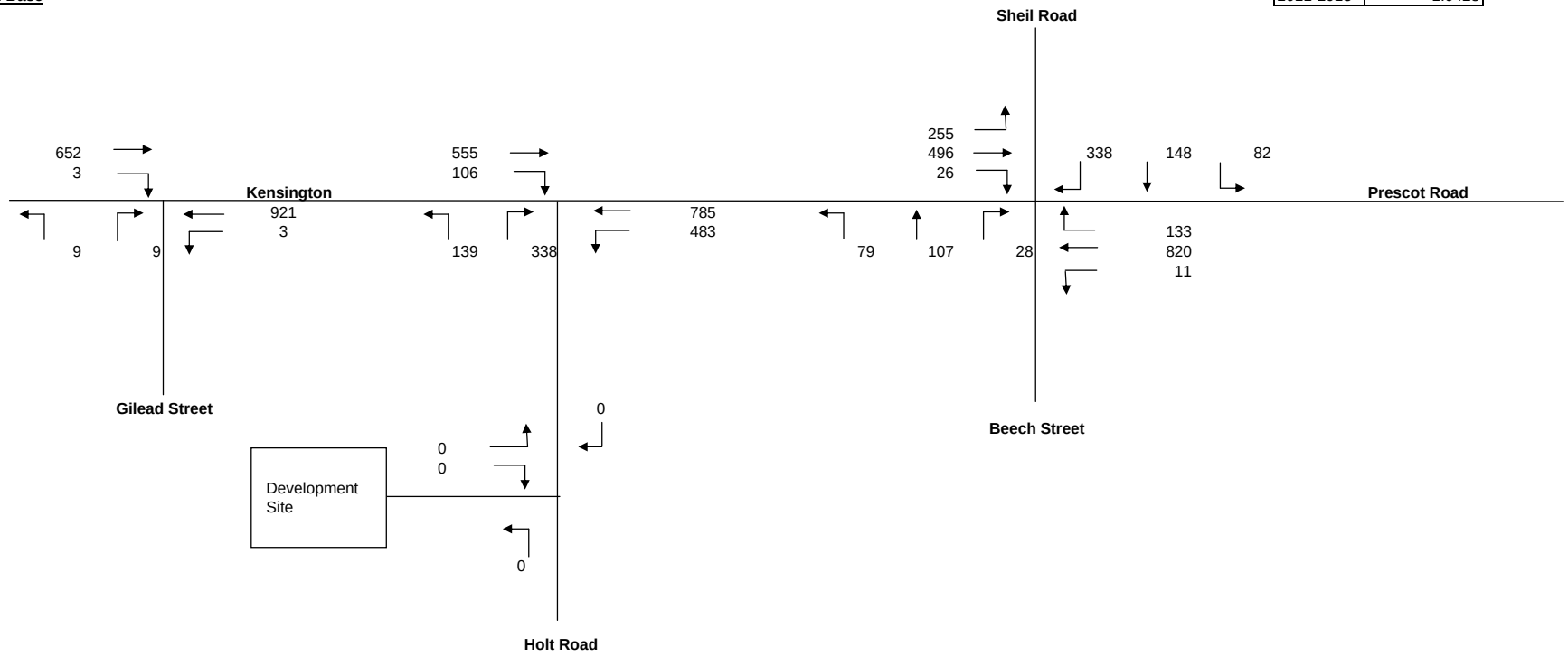


Diagram 6 - 2013 PM Base

Time Period	Growth Factor
2011-2013	1.0423

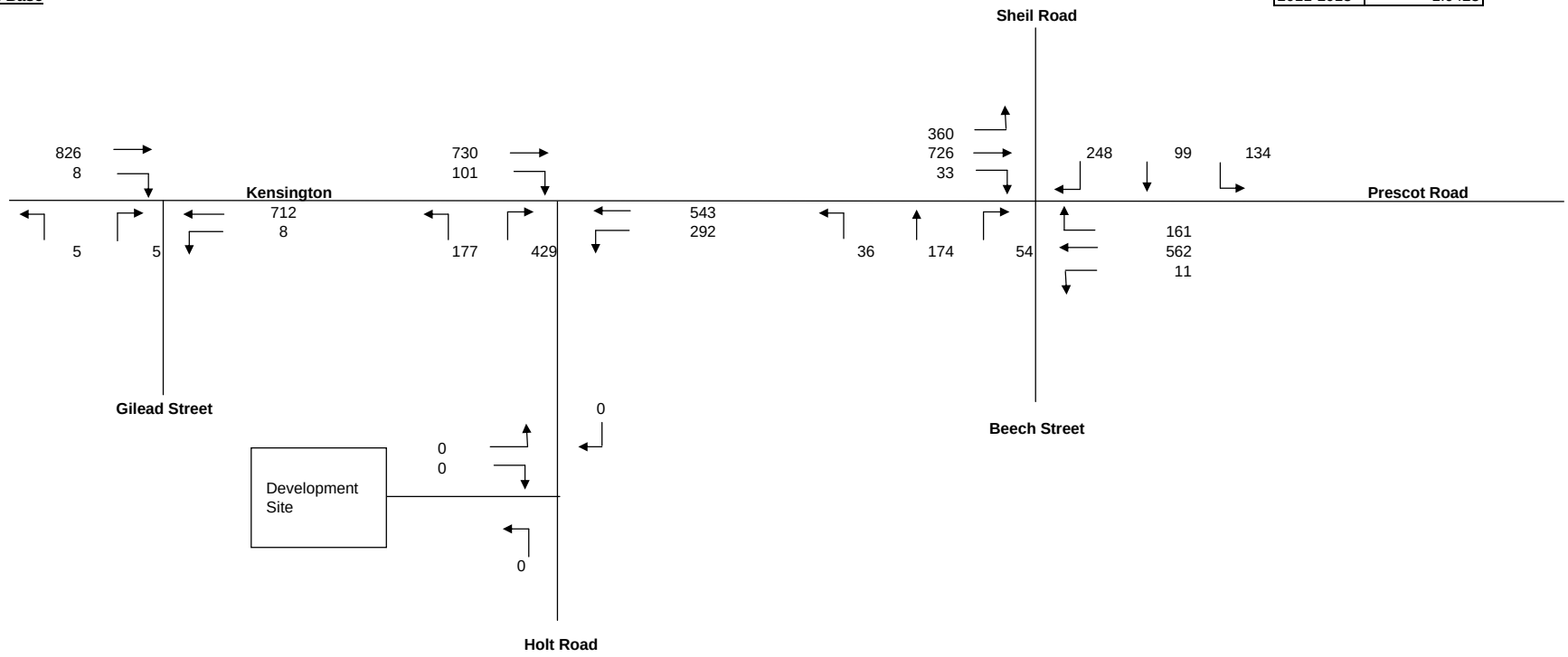


Diagram 7 - 2018 AM Base

Time Period	Growth Factor
2011-2018	1.1251

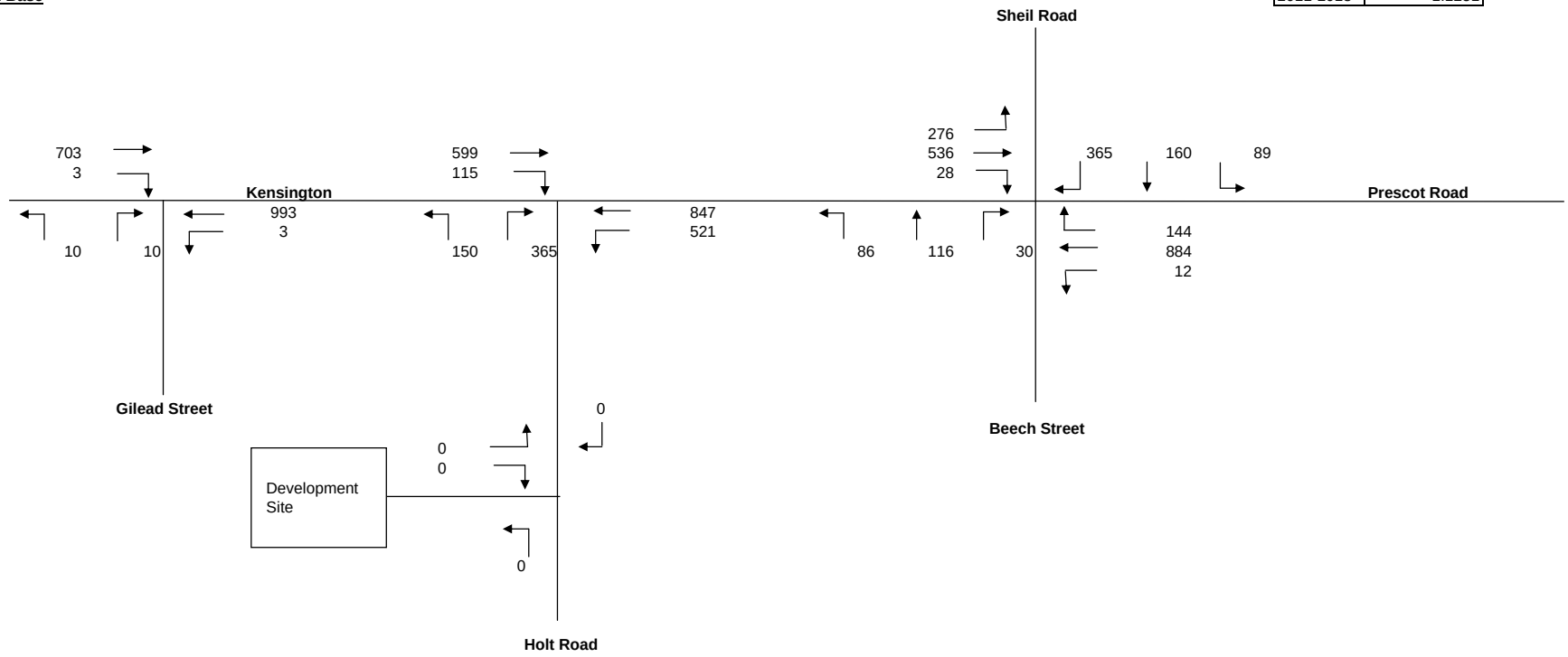


Diagram 8 - 2018 PM Base

Time Period	Growth Factor
2011-2018	1.1235

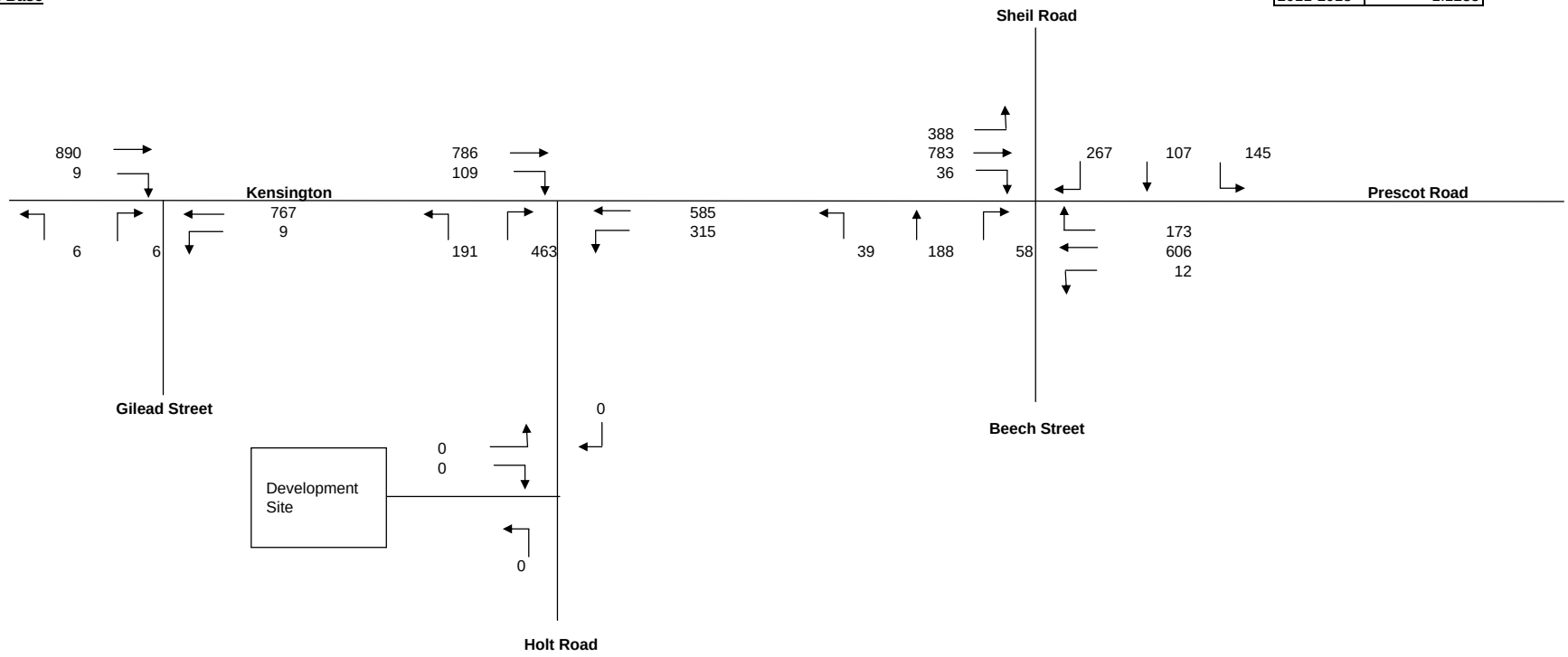
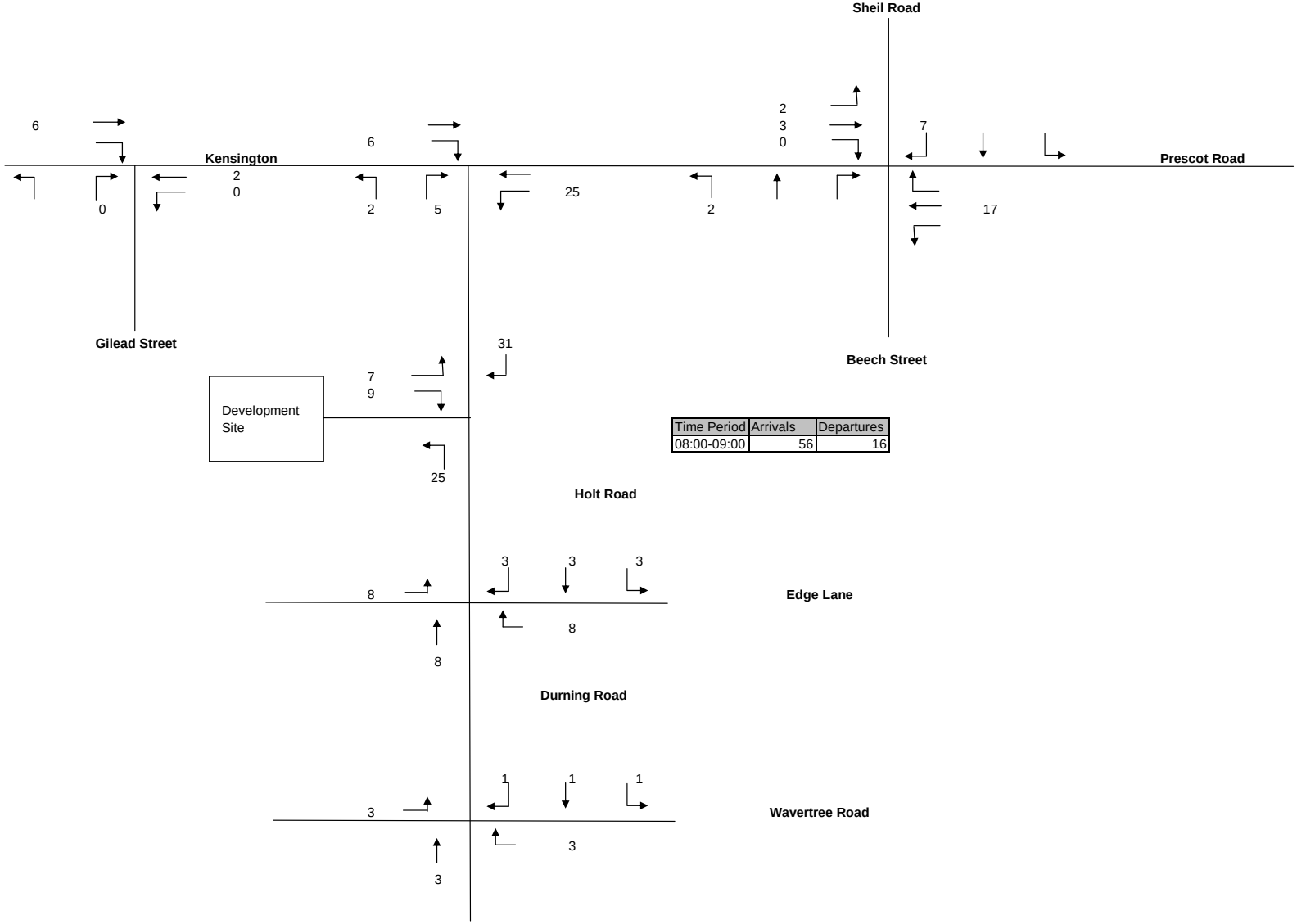
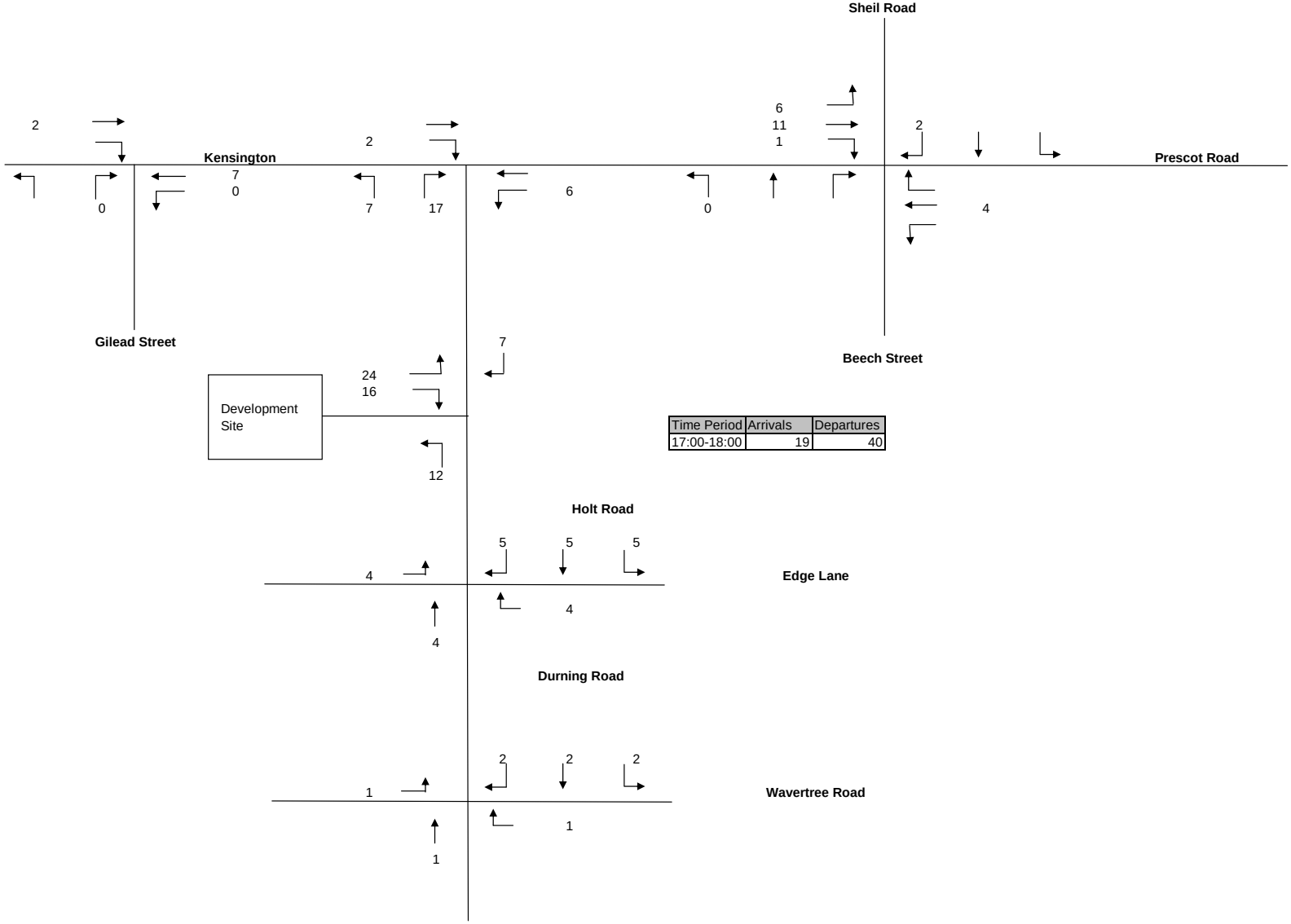


Diagram 9 - AM Development flows



Time Period	Arrivals	Departures
08:00-09:00	56	16

Diagram 10 - PM Development flows



Time Period	Arrivals	Departures
17:00-18:00	19	40

Diagram 11 - 2013 AM with Development flows

Time Period	Growth Factor
2011-2013	1.0428

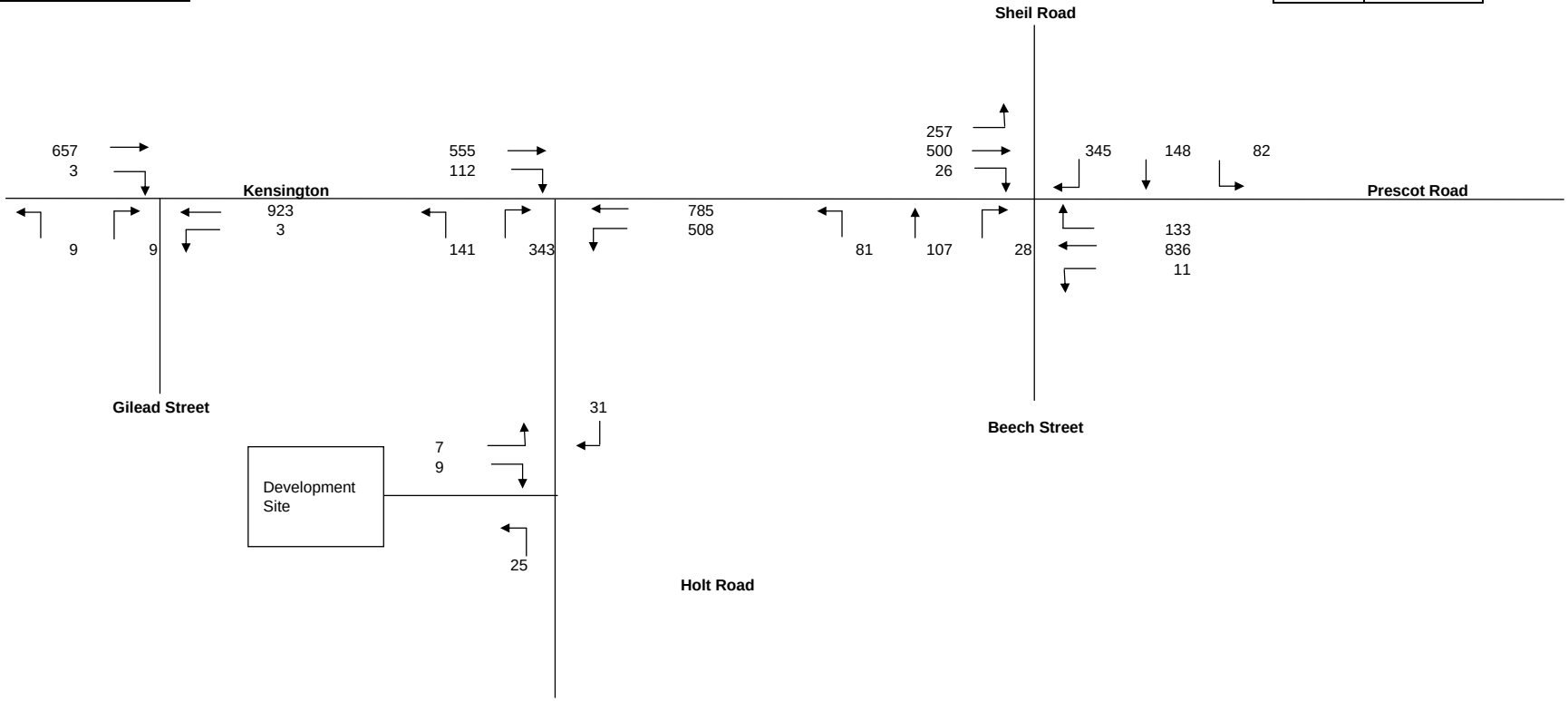


Diagram 12 - 2013 PM with Development flows

Time Period	Growth Factor
2011-2013	1.0428

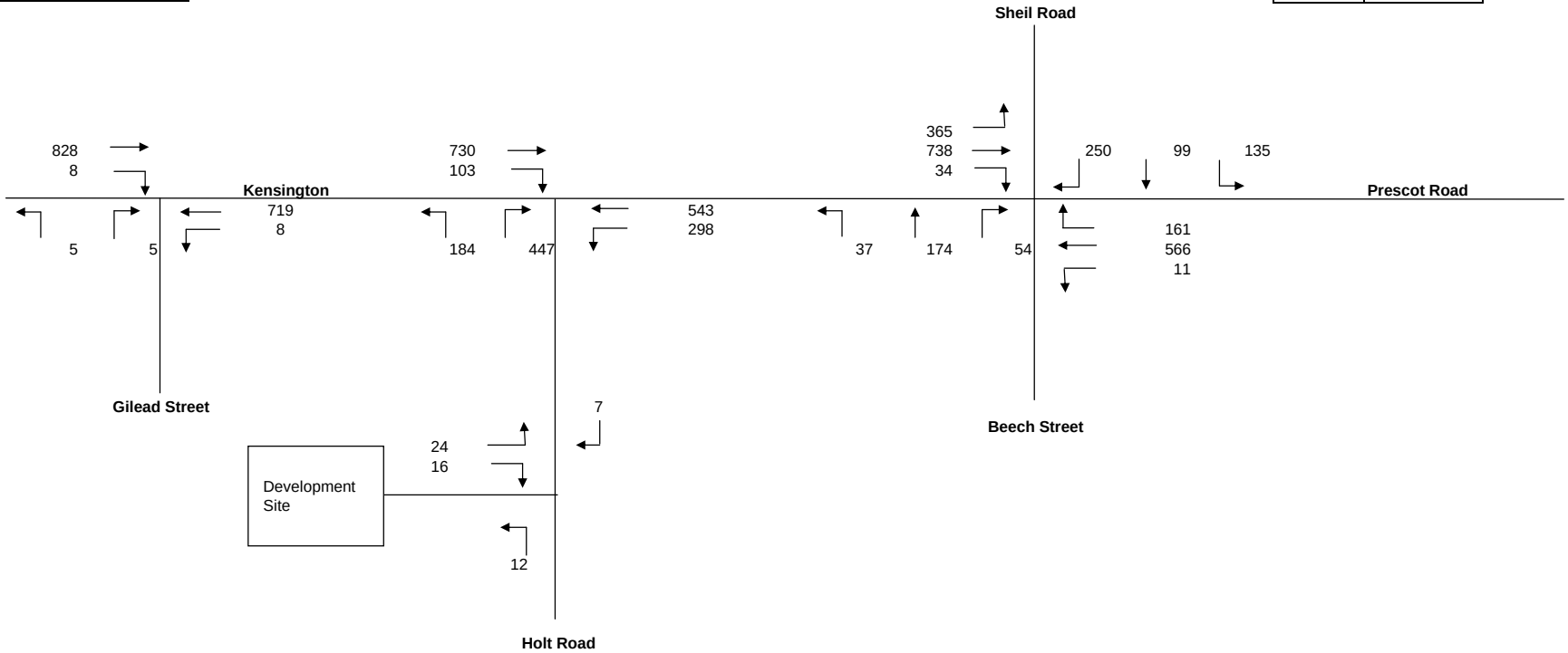


Diagram 13 - 2018 AM with Development flows

Time Period	Growth Factor
2011-2018	1.1251

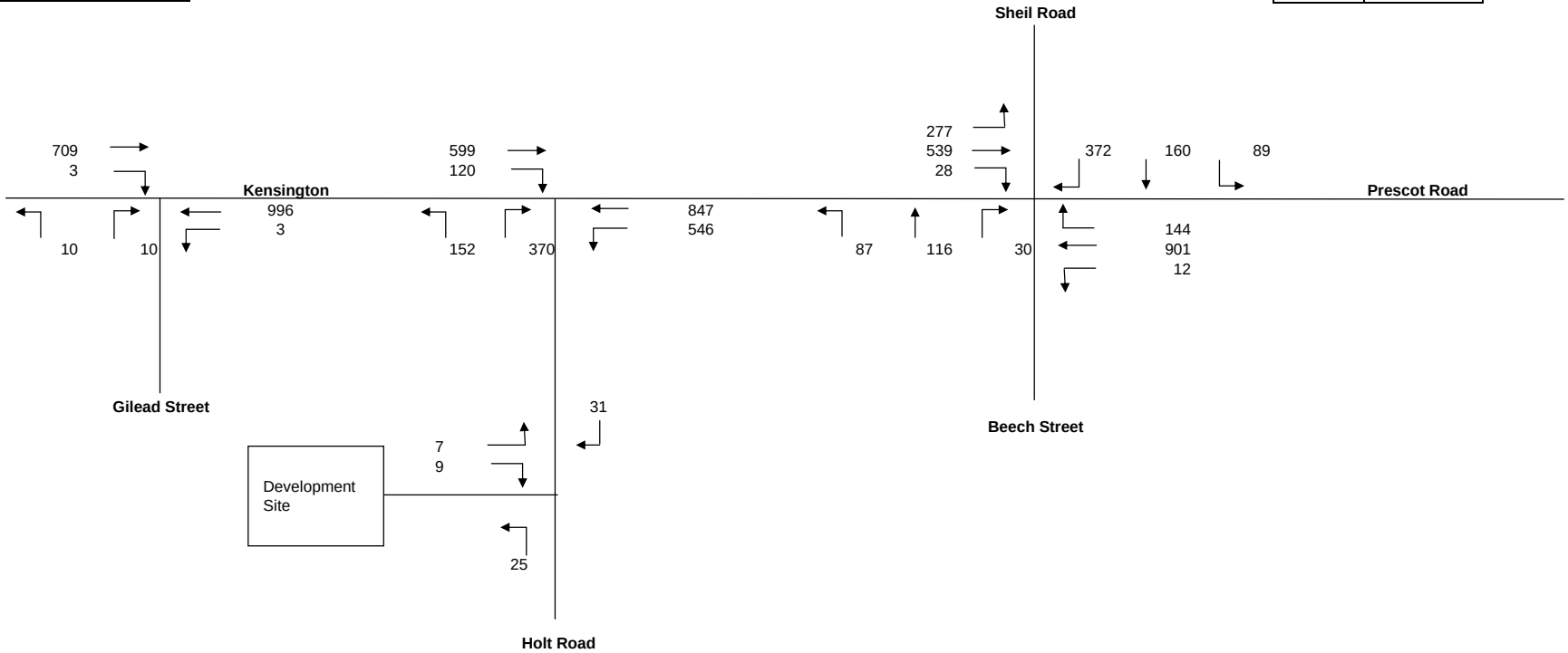
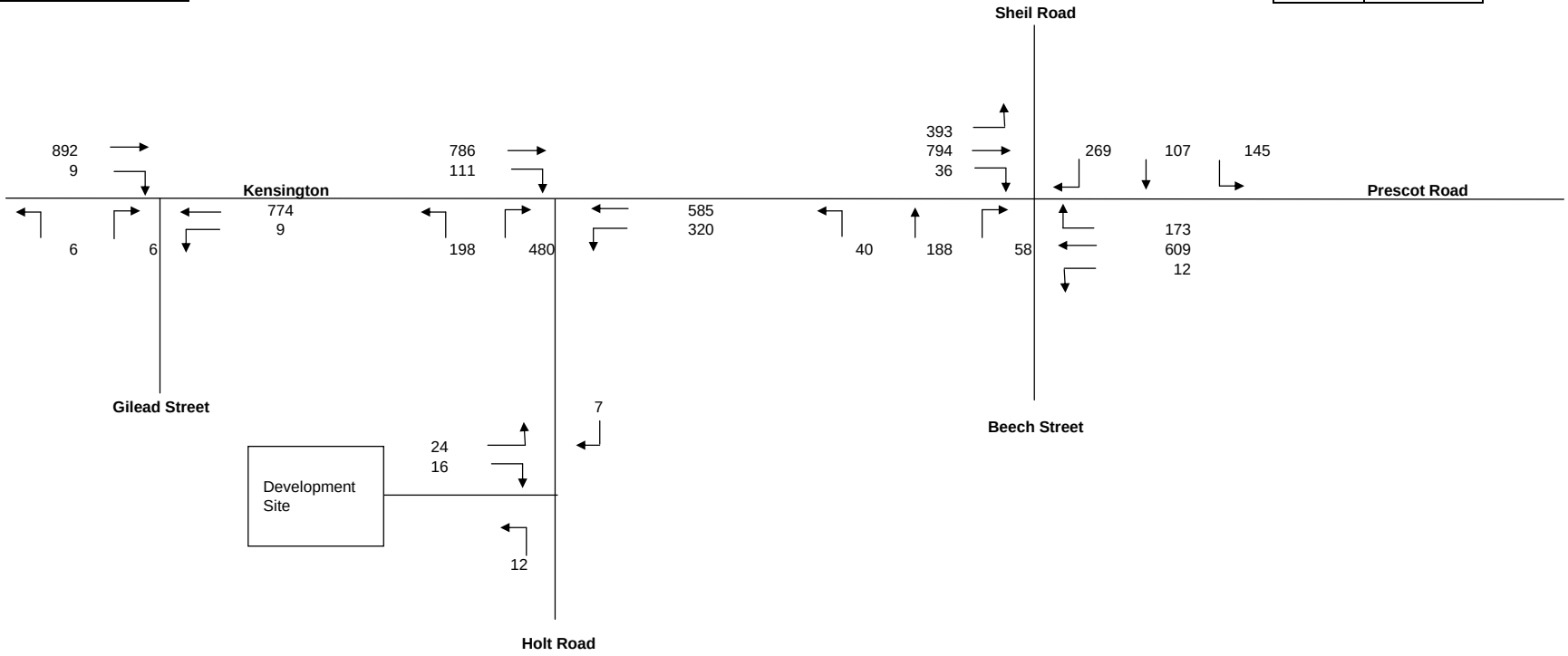


Diagram 14 - 2018 PM with Development flows

Time Period	Growth Factor
2011-2018	1.1235



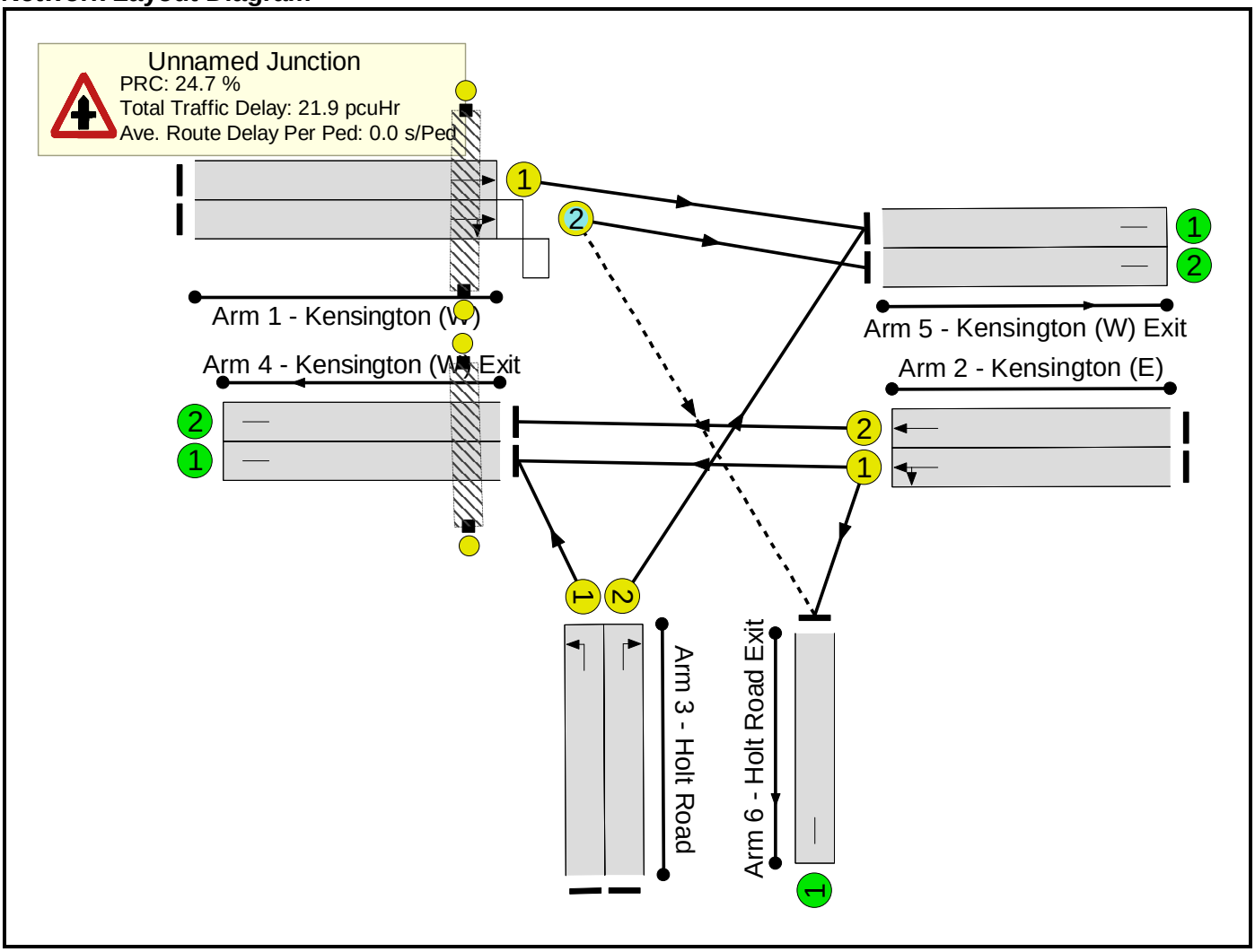
Appendix G. Linsig Output

Full Input Data And Results

User and Project Details

Project:	
Title:	
Location:	
File name:	Kensington_Holt Road Junction Model.lsg3x
Author:	
Company:	
Address:	
Notes:	

Network Layout Diagram



Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction

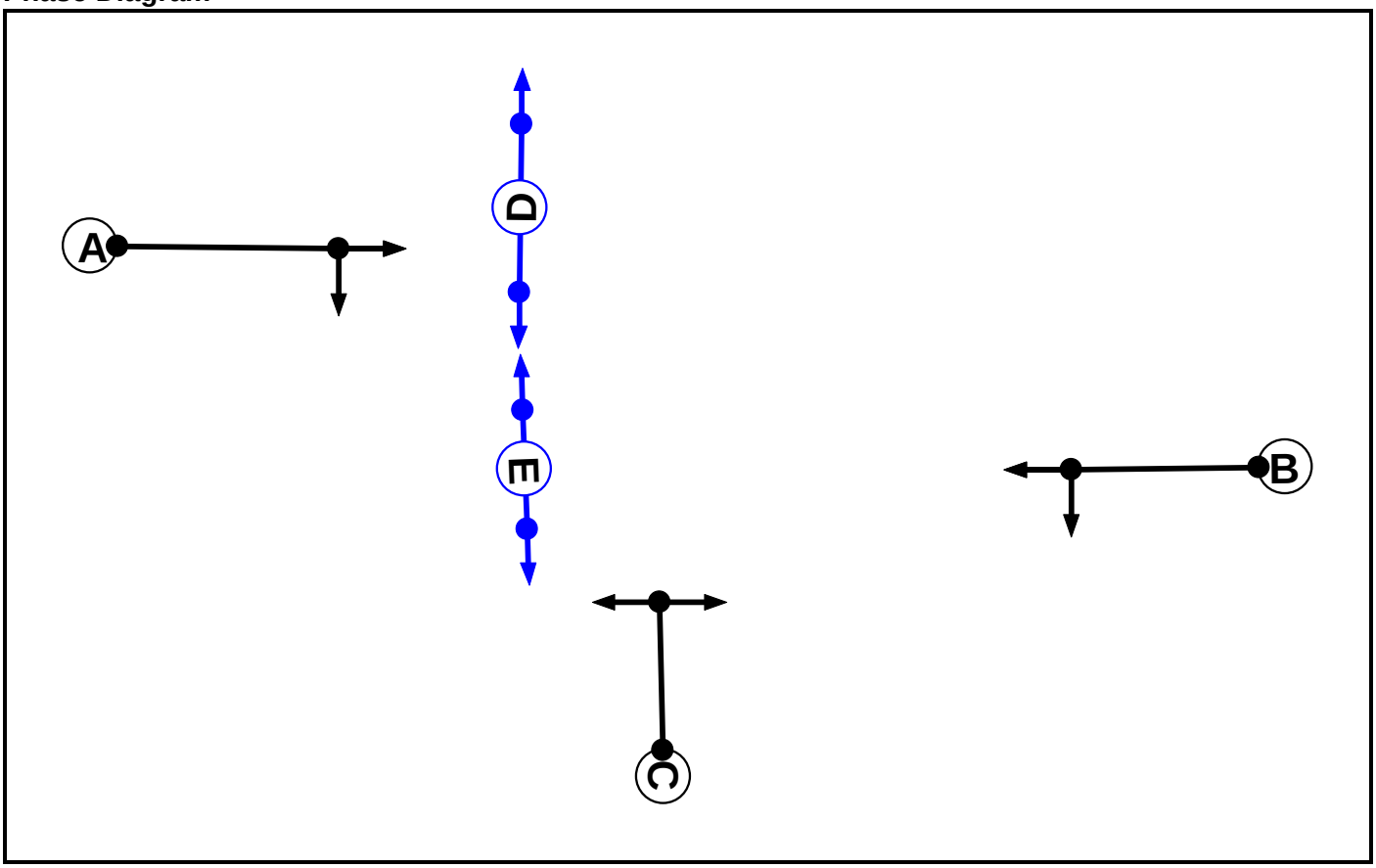
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (Kensington (W))	6/1 (Right)	1440	2/2	1.09	2/2	2.00	1.00	0.50	2	2.00
			2/1	1.09	2/1					

Full Input Data And Results

Phase Intergreens Matrix

		Starting Phase				
		A	B	C	D	E
Terminating Phase	A		-	7	-	-
	B	-		7	7	7
	C	7	7		-	7
	D	-	7	-		7
	E	-	7	7	7	

Phase Diagram



Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (Kensington (W))	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
1/2 (Kensington (W))	O	A	2	3	60.0	Geom	-	3.25	0.00	N	Arm 5 Ahead	Inf
											Arm 6 Right	15.00
2/1 (Kensington (E))	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	Inf
											Arm 6 Left	10.00
2/2 (Kensington (E))	U	B	2	3	60.0	Geom	-	3.00	0.00	N	Arm 4 Ahead	Inf
3/1 (Holt Road)	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Left	10.00
3/2 (Holt Road)	U	C	2	3	60.0	Geom	-	3.00	0.00	N	Arm 5 Right	13.00
4/1 (Kensington (W) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2 (Kensington (W) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Kensington (W) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2 (Kensington (W) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Holt Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2011 Base AM'	08:00	09:00	01:00	
2: '2011 Base PM'	17:00	18:00	01:00	
3: '2013 AM Ref'	08:00	09:00	01:00	
4: '2013 PM Ref'	17:00	18:00	01:00	
5: '2018 AM Ref'	08:00	09:00	01:00	
6: '2018 PM Ref'	17:00	18:00	01:00	
7: '2013 AM with Dev'	08:00	09:00	01:00	
8: '2013 PM with Dev'	17:00	18:00	01:00	
9: '2018 AM with Dev'	08:00	09:00	01:00	
10: '2018 PM with Dev'	17:00	18:00	01:00	

Traffic Flows, Desired

Scenario 1: '2011 AM Base' (FG1: '2011 Base AM', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	532	102	634
	B	753	0	463	1216
	C	133	324	0	457
	Tot.	886	856	565	2307

Scenario 2: '2011 PM Base' (FG2: '2011 Base PM', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	700	97	797
	B	521	0	280	801
	C	170	412	0	582
	Tot.	691	1112	377	2180

Full Input Data And Results

Scenario 3: '2013 AM Ref' (FG3: '2013 AM Ref', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	555	106	661
	B	785	0	483	1268
	C	139	338	0	477
	Tot.	924	893	589	2406

Scenario 4: '2013 PM Ref' (FG4: '2013 PM Ref', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	730	101	831
	B	543	0	292	835
	C	177	429	0	606
	Tot.	720	1159	393	2272

Scenario 5: '2018 AM Ref' (FG5: '2018 AM Ref', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	599	115	714
	B	847	0	521	1368
	C	150	365	0	515
	Tot.	997	964	636	2597

Scenario 6: '2018 PM Ref' (FG6: '2018 PM Ref', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	786	109	895
	B	585	0	315	900
	C	191	463	0	654
	Tot.	776	1249	424	2449

Scenario 7: '2013 AM with Dev' (FG7: '2013 AM with Dev', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	555	112	667
	B	785	0	508	1293
	C	141	343	0	484
	Tot.	926	898	620	2444

Full Input Data And Results

Scenario 8: '2013 PM with Dev' (FG8: '2013 PM with Dev', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	730	103	833
	B	543	0	298	841
	C	184	447	0	631
	Tot.	727	1177	401	2305

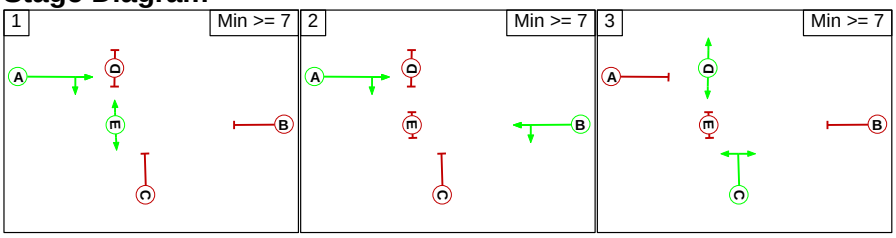
Scenario 9: '2018 AM with Dev' (FG9: '2018 AM with Dev', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	599	120	719
	B	847	0	546	1393
	C	152	370	0	522
	Tot.	999	969	666	2634

Scenario 10: '2018 PM with Dev' (FG10: '2018 PM with Dev', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	786	111	897
	B	585	0	320	905
	C	198	480	0	678
	Tot.	783	1266	431	2480

Stage Diagram



Full Input Data And Results
Scenario 1: '2011 AM Base' (FG1: '2011 Base AM', Plan 1: 'Network Control Plan 1')

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**64.4%**
Unnamed Junction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**64.4%**
1/1	Kensington (W) Ahead	U	N/A	N/A	A		1	74	-	532	1915	1197	44.4%
1/2	Kensington (W) Ahead Right	O	N/A	N/A	A		1	74	-	102	1891	278	36.7%
2/1	Kensington (E) Ahead Left	U	N/A	N/A	B		1	60	-	543	1698	863	62.9%
2/2	Kensington (E) Ahead	U	N/A	N/A	B		1	60	-	673	2055	1045	64.4%
3/1	Holt Road Left	U	N/A	N/A	C		1	32	-	133	1665	458	29.0%
3/2	Holt Road Right	U	N/A	N/A	C		1	32	-	324	1842	507	64.0%
4/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	213	1	Inf	0.0%
4/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	673	1	Inf	0.0%
5/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	856	1	Inf	0.0%
5/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	0	1	Inf	0.0%
6/1	Holt Road Exit	U	N/A	N/A	-		-	-	-	565	1	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-		-	D	-	1	32	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-		-	E	-	1	7	-	0	-	0	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**31**	**48**	**23**	**13.9**	**3.5**	**0.3**	**17.8**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**31**	**48**	**23**	**13.9**	**3.5**	**0.3**	**17.8**	**-**	**-**	**-**	**-**
1/1	532	532	-	-	-	1.7	0.4	-	2.1	14.4	9.2	0.4	9.6
1/2	102	102	31	48	23	0.3	0.3	0.3	0.9	31.1	1.3	0.3	1.6
2/1	543	543	-	-	-	3.2	0.8	-	4.1	26.9	13.0	0.8	13.8
2/2	673	673	-	-	-	4.0	0.9	-	4.9	26.4	16.3	0.9	17.2
3/1	133	133	-	-	-	1.3	0.2	-	1.5	39.8	3.5	0.2	3.7
3/2	324	324	-	-	-	3.4	0.9	-	4.3	48.0	9.5	0.9	10.3
4/1	213	213	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	673	673	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	856	856	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0
6/1	565	565	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 39.7 Total Delay for Signalled Lanes (pcuHr): 17.80
PRC Over All Lanes (%): 39.7 Total Delay Over All Lanes(pcuHr): 17.80 Cycle Time (s): 120

Full Input Data And Results

Scenario 2: '2011 PM Base' (FG2: '2011 Base PM', Plan 1: 'Network Control Plan 1')

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**65.5%**
Unnamed Junction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**65.5%**
1/1	Kensington (W) Ahead	U	N/A	N/A	A		1	66	-	700	1915	1069	65.5%
1/2	Kensington (W) Ahead Right	O	N/A	N/A	A		1	66	-	97	1891	402	24.1%
2/1	Kensington (E) Ahead Left	U	N/A	N/A	B		1	52	-	362	1716	758	47.8%
2/2	Kensington (E) Ahead	U	N/A	N/A	B		1	52	-	439	2055	908	48.4%
3/1	Holt Road Left	U	N/A	N/A	C		1	40	-	170	1665	569	29.9%
3/2	Holt Road Right	U	N/A	N/A	C		1	40	-	412	1842	629	65.5%
4/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	252	1	Inf	0.0%
4/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	439	1	Inf	0.0%
5/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	1112	1	Inf	0.0%
5/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	0	1	Inf	0.0%
6/1	Holt Road Exit	U	N/A	N/A	-		-	-	-	377	1	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-		-	D	-	1	40	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-		-	E	-	1	7	-	0	-	0	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**44**	**53**	**0**	**14.4**	**3.2**	**0.1**	**17.6**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**44**	**53**	**0**	**14.4**	**3.2**	**0.1**	**17.6**	**-**	**-**	**-**	**-**
1/1	700	700	-	-	-	3.6	0.9	-	4.5	23.3	16.1	0.9	17.1
1/2	97	97	44	53	0	0.3	0.2	0.1	0.5	20.4	1.5	0.2	1.6
2/1	362	362	-	-	-	2.4	0.5	-	2.8	28.2	8.4	0.5	8.9
2/2	439	439	-	-	-	2.9	0.5	-	3.4	27.6	10.4	0.5	10.8
3/1	170	170	-	-	-	1.4	0.2	-	1.6	33.5	4.1	0.2	4.3
3/2	412	412	-	-	-	3.8	0.9	-	4.8	41.7	11.6	0.9	12.5
4/1	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	439	439	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1112	1112	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0
6/1	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 37.5 Total Delay for Signalled Lanes (pcuHr): 17.64
PRC Over All Lanes (%): 37.5 Total Delay Over All Lanes(pcuHr): 17.64 Cycle Time (s): 120

Full Input Data And Results

Scenario 3: '2013 AM Ref' (FG3: '2013 AM Ref', Plan 1: 'Network Control Plan 1')

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**66.7%**
Unnamed Junction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**66.7%**
1/1	Kensington (W) Ahead	U	N/A	N/A	A		1	74	-	555	1915	1197	46.4%
1/2	Kensington (W) Ahead Right	O	N/A	N/A	A		1	74	-	106	1891	263	40.4%
2/1	Kensington (E) Ahead Left	U	N/A	N/A	B		1	60	-	572	1700	864	66.2%
2/2	Kensington (E) Ahead	U	N/A	N/A	B		1	60	-	696	2055	1045	66.6%
3/1	Holt Road Left	U	N/A	N/A	C		1	32	-	139	1665	458	30.4%
3/2	Holt Road Right	U	N/A	N/A	C		1	32	-	338	1842	507	66.7%
4/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	228	1	Inf	0.0%
4/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	696	1	Inf	0.0%
5/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	893	1	Inf	0.0%
5/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	0	1	Inf	0.0%
6/1	Holt Road Exit	U	N/A	N/A	-		-	-	-	589	1	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-		-	D	-	1	32	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-		-	E	-	1	7	-	0	-	0	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**14**	**50**	**41**	**14.8**	**3.9**	**0.4**	**19.1**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**14**	**50**	**41**	**14.8**	**3.9**	**0.4**	**19.1**	**-**	**-**	**-**	**-**
1/1	555	555	-	-	-	1.8	0.4	-	2.3	14.7	9.7	0.4	10.1
1/2	106	106	14	50	41	0.3	0.3	0.4	1.0	35.4	1.4	0.3	1.7
2/1	572	572	-	-	-	3.5	1.0	-	4.4	28.0	14.0	1.0	15.0
2/2	696	696	-	-	-	4.2	1.0	-	5.2	27.1	17.2	1.0	18.2
3/1	139	139	-	-	-	1.3	0.2	-	1.5	40.1	3.6	0.2	3.8
3/2	338	338	-	-	-	3.6	1.0	-	4.6	49.2	10.0	1.0	10.9
4/1	228	228	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	696	696	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	893	893	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0
6/1	589	589	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 34.9 Total Delay for Signalled Lanes (pcuHr): 19.15
PRC Over All Lanes (%): 34.9 Total Delay Over All Lanes(pcuHr): 19.15 Cycle Time (s): 120

Full Input Data And Results

Scenario 4: '2013 PM Ref' (FG4: '2013 PM Ref', Plan 1: 'Network Control Plan 1')

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**68.3%**
Unnamed Junction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**68.3%**
1/1	Kensington (W) Ahead	U	N/A	N/A	A		1	66	-	730	1915	1069	68.3%
1/2	Kensington (W) Ahead Right	O	N/A	N/A	A		1	66	-	101	1891	388	26.0%
2/1	Kensington (E) Ahead Left	U	N/A	N/A	B		1	52	-	378	1716	758	49.9%
2/2	Kensington (E) Ahead	U	N/A	N/A	B		1	52	-	457	2055	908	50.4%
3/1	Holt Road Left	U	N/A	N/A	C		1	40	-	177	1665	569	31.1%
3/2	Holt Road Right	U	N/A	N/A	C		1	40	-	429	1842	629	68.2%
4/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	263	1	Inf	0.0%
4/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	457	1	Inf	0.0%
5/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	1159	1	Inf	0.0%
5/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	0	1	Inf	0.0%
6/1	Holt Road Exit	U	N/A	N/A	-		-	-	-	393	1	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-		-	D	-	1	40	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-		-	E	-	1	7	-	0	-	0	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**46**	**55**	**0**	**15.2**	**3.5**	**0.1**	**18.8**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**46**	**55**	**0**	**15.2**	**3.5**	**0.1**	**18.8**	**-**	**-**	**-**	**-**
1/1	730	730	-	-	-	3.8	1.1	-	4.9	24.2	17.2	1.1	18.3
1/2	101	101	46	55	0	0.3	0.2	0.1	0.6	21.0	1.5	0.2	1.7
2/1	378	378	-	-	-	2.5	0.5	-	3.0	28.7	8.9	0.5	9.4
2/2	457	457	-	-	-	3.1	0.5	-	3.6	28.0	10.9	0.5	11.4
3/1	177	177	-	-	-	1.4	0.2	-	1.7	33.7	4.3	0.2	4.6
3/2	429	429	-	-	-	4.0	1.1	-	5.1	42.8	12.2	1.1	13.2
4/1	263	263	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	457	457	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1159	1159	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0
6/1	393	393	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 31.8 Total Delay for Signalled Lanes (pcuHr): 18.82
PRC Over All Lanes (%): 31.8 Total Delay Over All Lanes(pcuHr): 18.82 Cycle Time (s): 120

Full Input Data And Results

Scenario 5: '2018 AM Ref' (FG5: '2018 AM Ref', Plan 1: 'Network Control Plan 1')

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**72.2%**
Unnamed Junction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**72.2%**
1/1	Kensington (W) Ahead	U	N/A	N/A	A		1	74	-	599	1915	1197	50.0%
1/2	Kensington (W) Ahead Right	O	N/A	N/A	A		1	74	-	115	1891	249	46.2%
2/1	Kensington (E) Ahead Left	U	N/A	N/A	B		1	60	-	614	1699	864	71.1%
2/2	Kensington (E) Ahead	U	N/A	N/A	B		1	60	-	754	2055	1045	72.2%
3/1	Holt Road Left	U	N/A	N/A	C		1	32	-	150	1665	458	32.8%
3/2	Holt Road Right	U	N/A	N/A	C		1	32	-	365	1842	507	72.1%
4/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	243	1	Inf	0.0%
4/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	754	1	Inf	0.0%
5/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	964	1	Inf	0.0%
5/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	0	1	Inf	0.0%
6/1	Holt Road Exit	U	N/A	N/A	-		-	-	-	636	1	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-		-	D	-	1	32	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-		-	E	-	1	7	-	0	-	0	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**55**	**60**	**16.4**	**4.9**	**0.6**	**21.9**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**0**	**55**	**60**	**16.4**	**4.9**	**0.6**	**21.9**	**-**	**-**	**-**	**-**
1/1	599	599	-	-	-	2.0	0.5	-	2.5	15.3	10.8	0.5	11.3
1/2	115	115	0	55	60	0.3	0.4	0.6	1.3	40.0	1.5	0.4	1.9
2/1	614	614	-	-	-	3.9	1.2	-	5.1	29.9	15.7	1.2	16.9
2/2	754	754	-	-	-	4.8	1.3	-	6.1	29.1	19.5	1.3	20.8
3/1	150	150	-	-	-	1.4	0.2	-	1.7	40.5	4.0	0.2	4.2
3/2	365	365	-	-	-	4.0	1.3	-	5.3	51.8	11.0	1.3	12.2
4/1	243	243	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	754	754	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	964	964	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0
6/1	636	636	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 24.7 Total Delay for Signalled Lanes (pcuHr): 21.94
PRC Over All Lanes (%): 24.7 Total Delay Over All Lanes(pcuHr): 21.94 Cycle Time (s): 120

Full Input Data And Results

Scenario 6: '2018 PM Ref' (FG6: '2018 PM Ref', Plan 1: 'Network Control Plan 1')

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**73.6%**
Unnamed Junction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**73.6%**
1/1	Kensington (W) Ahead	U	N/A	N/A	A		1	66	-	786	1915	1069	73.5%
1/2	Kensington (W) Ahead Right	O	N/A	N/A	A		1	66	-	109	1891	362	30.1%
2/1	Kensington (E) Ahead Left	U	N/A	N/A	B		1	52	-	407	1716	758	53.7%
2/2	Kensington (E) Ahead	U	N/A	N/A	B		1	52	-	493	2055	908	54.3%
3/1	Holt Road Left	U	N/A	N/A	C		1	40	-	191	1665	569	33.6%
3/2	Holt Road Right	U	N/A	N/A	C		1	40	-	463	1842	629	73.6%
4/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	283	1	Inf	0.0%
4/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	493	1	Inf	0.0%
5/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	1249	1	Inf	0.0%
5/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	0	1	Inf	0.0%
6/1	Holt Road Exit	U	N/A	N/A	-		-	-	-	424	1	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-		-	D	-	1	40	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-		-	E	-	1	7	-	0	-	0	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**50**	**59**	**0**	**16.9**	**4.4**	**0.1**	**21.4**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**50**	**59**	**0**	**16.9**	**4.4**	**0.1**	**21.4**	**-**	**-**	**-**	**-**
1/1	786	786	-	-	-	4.3	1.4	-	5.7	26.1	19.4	1.4	20.8
1/2	109	109	50	59	0	0.4	0.2	0.1	0.7	22.6	1.7	0.2	1.9
2/1	407	407	-	-	-	2.8	0.6	-	3.4	29.6	9.8	0.6	10.4
2/2	493	493	-	-	-	3.4	0.6	-	4.0	28.9	12.1	0.6	12.6
3/1	191	191	-	-	-	1.6	0.3	-	1.8	34.1	4.7	0.3	5.0
3/2	463	463	-	-	-	4.5	1.4	-	5.8	45.4	13.5	1.4	14.9
4/1	283	283	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	493	493	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1249	1249	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0
6/1	424	424	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 22.3 Total Delay for Signalled Lanes (pcuHr): 21.35
PRC Over All Lanes (%): 22.3 Total Delay Over All Lanes(pcuHr): 21.35 Cycle Time (s): 120

Full Input Data And Results

Scenario 7: '2013 AM with Dev' (FG7: '2013 AM with Dev', Plan 1: 'Network Control Plan 1')

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**68.1%**
Unnamed Junction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**68.1%**
1/1	Kensington (W) Ahead	U	N/A	N/A	A		1	74	-	555	1915	1197	46.4%
1/2	Kensington (W) Ahead Right	O	N/A	N/A	A		1	74	-	112	1891	256	43.8%
2/1	Kensington (E) Ahead Left	U	N/A	N/A	B		1	60	-	582	1693	861	67.6%
2/2	Kensington (E) Ahead	U	N/A	N/A	B		1	60	-	711	2055	1045	68.1%
3/1	Holt Road Left	U	N/A	N/A	C		1	32	-	141	1665	458	30.8%
3/2	Holt Road Right	U	N/A	N/A	C		1	32	-	343	1842	507	67.7%
4/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	215	1	Inf	0.0%
4/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	711	1	Inf	0.0%
5/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	898	1	Inf	0.0%
5/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	0	1	Inf	0.0%
6/1	Holt Road Exit	U	N/A	N/A	-		-	-	-	620	1	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-		-	D	-	1	32	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-		-	E	-	1	7	-	0	-	0	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**7**	**53**	**51**	**15.1**	**4.2**	**0.5**	**19.8**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**7**	**53**	**51**	**15.1**	**4.2**	**0.5**	**19.8**	**-**	**-**	**-**	**-**
1/1	555	555	-	-	-	1.8	0.4	-	2.3	14.7	9.7	0.4	10.1
1/2	112	112	7	53	51	0.3	0.4	0.5	1.2	37.8	1.5	0.4	1.8
2/1	582	582	-	-	-	3.6	1.0	-	4.6	28.5	14.4	1.0	15.4
2/2	711	711	-	-	-	4.4	1.1	-	5.4	27.5	17.8	1.1	18.8
3/1	141	141	-	-	-	1.3	0.2	-	1.6	40.1	3.7	0.2	3.9
3/2	343	343	-	-	-	3.7	1.0	-	4.7	49.6	10.1	1.0	11.1
4/1	215	215	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	711	711	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	898	898	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0
6/1	620	620	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 32.2 Total Delay for Signalled Lanes (pcuHr): 19.79
PRC Over All Lanes (%): 32.2 Total Delay Over All Lanes(pcuHr): 19.79 Cycle Time (s): 120

Full Input Data And Results

Scenario 8: '2013 PM with Dev' (FG8: '2013 PM with Dev', Plan 1: 'Network Control Plan 1')

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**69.3%**
Unnamed Junction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**69.3%**
1/1	Kensington (W) Ahead	U	N/A	N/A	A		1	65	-	730	1915	1053	69.3%
1/2	Kensington (W) Ahead Right	O	N/A	N/A	A		1	65	-	103	1891	380	27.1%
2/1	Kensington (E) Ahead Left	U	N/A	N/A	B		1	51	-	380	1713	742	51.2%
2/2	Kensington (E) Ahead	U	N/A	N/A	B		1	51	-	461	2055	890	51.8%
3/1	Holt Road Left	U	N/A	N/A	C		1	41	-	184	1665	583	31.6%
3/2	Holt Road Right	U	N/A	N/A	C		1	41	-	447	1842	645	69.3%
4/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	266	1	Inf	0.0%
4/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	461	1	Inf	0.0%
5/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	1177	1	Inf	0.0%
5/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	0	1	Inf	0.0%
6/1	Holt Road Exit	U	N/A	N/A	-		-	-	-	401	1	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-		-	D	-	1	41	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-		-	E	-	1	7	-	0	-	0	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**46**	**57**	**0**	**15.8**	**3.7**	**0.1**	**19.5**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**46**	**57**	**0**	**15.8**	**3.7**	**0.1**	**19.5**	**-**	**-**	**-**	**-**
1/1	730	730	-	-	-	4.0	1.1	-	5.1	25.2	17.6	1.1	18.8
1/2	103	103	46	57	0	0.4	0.2	0.1	0.6	21.9	1.6	0.2	1.8
2/1	380	380	-	-	-	2.6	0.5	-	3.1	29.7	9.2	0.5	9.7
2/2	461	461	-	-	-	3.2	0.5	-	3.7	29.0	11.1	0.5	11.7
3/1	184	184	-	-	-	1.5	0.2	-	1.7	33.0	4.4	0.2	4.7
3/2	447	447	-	-	-	4.2	1.1	-	5.3	42.5	12.7	1.1	13.8
4/1	266	266	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	461	461	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1177	1177	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0
6/1	401	401	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 29.8 Total Delay for Signalled Lanes (pcuHr): 19.54
PRC Over All Lanes (%): 29.8 Total Delay Over All Lanes(pcuHr): 19.54 Cycle Time (s): 120

Full Input Data And Results

Scenario 9: '2018 AM with Dev' (FG9: '2018 AM with Dev', Plan 1: 'Network Control Plan 1')

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**73.4%**
Unnamed Junction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**73.4%**
1/1	Kensington (W) Ahead	U	N/A	N/A	A		1	74	-	599	1915	1197	50.0%
1/2	Kensington (W) Ahead Right	O	N/A	N/A	A		1	74	-	120	1891	249	48.2%
2/1	Kensington (E) Ahead Left	U	N/A	N/A	B		1	60	-	626	1693	861	72.7%
2/2	Kensington (E) Ahead	U	N/A	N/A	B		1	60	-	767	2055	1045	73.4%
3/1	Holt Road Left	U	N/A	N/A	C		1	32	-	152	1665	458	33.2%
3/2	Holt Road Right	U	N/A	N/A	C		1	32	-	370	1842	507	73.0%
4/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	232	1	Inf	0.0%
4/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	767	1	Inf	0.0%
5/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	969	1	Inf	0.0%
5/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	0	1	Inf	0.0%
6/1	Holt Road Exit	U	N/A	N/A	-		-	-	-	666	1	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-		-	D	-	1	32	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-		-	E	-	1	7	-	0	-	0	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**60**	**60**	**16.8**	**5.2**	**0.6**	**22.6**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**0**	**60**	**60**	**16.8**	**5.2**	**0.6**	**22.6**	**-**	**-**	**-**	**-**
1/1	599	599	-	-	-	2.0	0.5	-	2.5	15.3	10.8	0.5	11.3
1/2	120	120	0	60	60	0.3	0.5	0.6	1.4	41.6	1.7	0.5	2.2
2/1	626	626	-	-	-	4.0	1.3	-	5.3	30.6	16.2	1.3	17.5
2/2	767	767	-	-	-	4.9	1.4	-	6.3	29.6	20.0	1.4	21.4
3/1	152	152	-	-	-	1.5	0.2	-	1.7	40.6	4.0	0.2	4.3
3/2	370	370	-	-	-	4.1	1.3	-	5.4	52.4	11.1	1.3	12.4
4/1	232	232	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	767	767	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	969	969	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0
6/1	666	666	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 22.6 Total Delay for Signalled Lanes (pcuHr): 22.65
PRC Over All Lanes (%): 22.6 Total Delay Over All Lanes(pcuHr): 22.65 Cycle Time (s): 120

Full Input Data And Results

Scenario 10: '2018 PM with Dev' (FG10: '2018 PM with Dev', Plan 1: 'Network Control Plan 1')

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**74.6%**
Unnamed Junction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**74.6%**
1/1	Kensington (W) Ahead	U	N/A	N/A	A		1	65	-	786	1915	1053	74.6%
1/2	Kensington (W) Ahead Right	O	N/A	N/A	A		1	65	-	111	1891	355	31.3%
2/1	Kensington (E) Ahead Left	U	N/A	N/A	B		1	51	-	409	1714	743	55.1%
2/2	Kensington (E) Ahead	U	N/A	N/A	B		1	51	-	496	2055	890	55.7%
3/1	Holt Road Left	U	N/A	N/A	C		1	41	-	198	1665	583	34.0%
3/2	Holt Road Right	U	N/A	N/A	C		1	41	-	480	1842	645	74.5%
4/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	287	1	Inf	0.0%
4/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	496	1	Inf	0.0%
5/1	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	1266	1	Inf	0.0%
5/2	Kensington (W) Exit	U	N/A	N/A	-		-	-	-	0	1	Inf	0.0%
6/1	Holt Road Exit	U	N/A	N/A	-		-	-	-	431	1	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-		-	D	-	1	41	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-		-	E	-	1	7	-	0	-	0	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**50**	**61**	**0**	**17.4**	**4.6**	**0.1**	**22.1**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**50**	**61**	**0**	**17.4**	**4.6**	**0.1**	**22.1**	**-**	**-**	**-**	**-**
1/1	786	786	-	-	-	4.5	1.5	-	6.0	27.3	19.9	1.5	21.3
1/2	111	111	50	61	0	0.4	0.2	0.1	0.7	23.5	1.8	0.2	2.0
2/1	409	409	-	-	-	2.9	0.6	-	3.5	30.7	10.1	0.6	10.7
2/2	496	496	-	-	-	3.5	0.6	-	4.1	29.9	12.3	0.6	12.9
3/1	198	198	-	-	-	1.6	0.3	-	1.8	33.5	4.8	0.3	5.1
3/2	480	480	-	-	-	4.6	1.4	-	6.0	45.0	14.0	1.4	15.4
4/1	287	287	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1266	1266	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0
6/1	431	431	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 20.6 Total Delay for Signalled Lanes (pcuHr): 22.13
PRC Over All Lanes (%): 20.6 Total Delay Over All Lanes(pcuHr): 22.13 Cycle Time (s): 120

Appendix H. Accident Data

Date: 18-April-2011
Time: 10:20:29

Title: **Kensington Health Centre - Accident Data Request for 13/04/2007 to 12/04/2010**

Requested output:**D - Print Crash Report**
Date: 18-April-2011

There were 15 reported crashes resulting in injury

D-PRINT CRASH REPORT

18-Apr-2011
10:21:43

Kensington Health Centre - Accident Data Request for 13/04/2007 to 12/04/2010

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
1	**Road No A5047 Grid 336955E Section Ref 390518N**	SLIGHT	08/03/2008	Sat	11:00	L NSL	Dry	Fine		R.TURN	M/C
	A5047 EDGE LANE AT JUNCTION WITH U QUORN STREET, LIVERPOOL, MERSEYSIDE L07253/L07493								Liverpool		
	V2 TRAVELLING ALONG ROAD, PASSING STAT TRAFFIC, V1 PULLS OUT FROM SIDE ROAD BETWEEN STAT TRAFFIC & COLLISION OCCURS.						Veh1, Car, NW -> SE Veh2, M/cycle>125, W -> E				Casualties 1 Vehicles 2
2	**Road No A5047 Grid 336955E Section Ref 390518N**	SLIGHT	06/05/2008	Tue	13:15	L STL	Dry	Fine		R.TURN	
	A5047 EDGE LANE AT JUNCTION WITH U QUORN STREET, LIVERPOOL MERSEYSIDE, L07253/L07493								Liverpool		
	V1 TRAV. O/SIDE LANE NEGOTIATES SLIGHT L/H/BEND V2 TURNING RIGHT FROM SIDE ROAD COLLIDES WITH O/SIDE OF V2						Veh1, Car, SW -> NE Veh2, Car, N -> SW				Casualties 2 Vehicles 2
3	**Road No A5047 Grid 336955E Section L07253 Ref 390518N**	SERIOUS	07/05/2009	Thu	14:35	L STL	Dry	Fine		R.TURN	M/C
	A5047 EDGE LANE AT JUNCTION WITH U QUORN STREET, LIVERPOOL, MERSEYSIDE, L07253/L07493								Liverpool		
	V2 TURNS RIGHT THROUGH GAP LEFT IN STAT TRAFFIC WHEN M/CYCLE V1 O/TAKING STAT TRAFFIC COLLIDES WITH SAME						Veh1, M/cycle>125, SW -> NE Veh2, Taxi, N -> SW				Casualties 1 Vehicles 2
4	**Road No U Grid 337008E Section L07151 Ref 390657N**	SLIGHT	30/11/2007	Fri	15:17	L STL	Wet/Damp	Fine	N	S.VEH	
	U BRAE STREET 50 METRES WEST OF B5173 HOLT ROAD, LIVERPOOL, MERSEYSIDE L07151/L07341								Liverpool		PED
	C1 (PED) RUNS INTO PATH OF V1 CAUSING A COLLISION.						Veh1, Car, E -> W				Casualties 1 Vehicles 1

Key

Involved
- *PED* Pedestrian
- *HGV* Heavy Goods Vehicle
- *GV* Goods Vehicle
- *M/C* Motor Cycle
- *P/C* Pedal Cycle
- *PSV* Bus/Coach

Street Lighting
- *L* Daylight
- *DRK* Dark
- *NSL* No Street Lights
- *STL* Street Lights
- *USL* Street LIghts Unlit
- *STU* Street Lights Unknown

FACTORS
- *+VE* Positive Breath Test
- *R.TURN* Right Turn Manoeuvre
- *O/TAKE* Overtaking Manoeuvre
- *S.VEH* Single Vehicle

Special Conditions
- *ATS OUT* Traffic Lights Not Working
- *ATS DEF* Traffic Lights Defective
- *SIGNS* Road Signs Defective or Obscurred
- *RD WRKS* Road Works
- *Surface* Road Surface Defective

D-PRINT CRASH REPORT

18-Apr-2011
10:21:43

Kensington Health Centre - Accident Data Request for 13/04/2007 to 12/04/2010

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
5	**Road No A5047 Grid 337031E Section L07253 Ref 390556N**	SLIGHT	24/09/2008	Wed	17:10	L STL	Dry	Fine		O/TAKE R.TURN	
	A5047 EDGE LANE AT JUNCTION WITH B5173 DURNING ROAD, LIVERPOOOL, MERSEYSIDE, L07253/L07241								Liverpool		
	V1 STAT AT ATS IS HIT IN THE REAR BY V2 WHICH THEN FTS						Veh1, Car, W -> S Veh2, Car, W -> E				Casualties 3 Vehicles 2
6	**Road No A5089 Grid 337037E Section Ref 390556N**	SLIGHT	27/02/2008	Wed	01:15	DRK STL	Wet/Damp	Fine Wind		R.TURN	
	A5089 HOLT ROAD AT JUNCTION WITH A5047 EDGE LANE, LIVERPOOL, MERSEYSIDE, L07341/L07253								Liverpool		
	V1 MOVES OFF AS LIGHTS CHANGE TO TURN RIGHT & IS HIT IN THE REAR BY V2						Veh1, Taxi, N -> E Veh2, Taxi, N -> S				Casualties 1 Vehicles 2
7	**Road No B5173 Grid 337037E Section L07341 Ref 390556N**	SLIGHT	03/10/2009	Sat	01:07	DRK STL	Dry	Fine			
	B5173 DURNING ROAD AT JUNCTION WITH A5047 EDGE LANE, LIVERPOOL, MERSEYSIDE L07341/L07253								Liverpool		
	V2 STATIONARY WAITING AT ATS JUNCTION WHEN V1 COLLIDES WITH ITS REAR.						Veh1, Taxi, N -> S Veh2, Taxi, N -> S				Casualties 2 Vehicles 2
8	**Road No B5173 Grid 337040E Section Ref 390544N**	SLIGHT	19/11/2008	Wed	18:45	DRK STL	Dry	Fine			
	B5173 DURNING ROAD AT JUNCTION WITH A5047 EDGE LANE, LIVERPOOL, MERSEYSIDE, L07241/L07253								Liverpool		
	VEH(2) STATIONARY, VEH(1) COLLIDES INTO VEH(2)						Veh1, Car, S -> N Veh2, Car, S -> N				Casualties 1 Vehicles 2

Key

Involved
- *PED* *Pedestrian*
- *HGV* *Heavy Goods Vehicle*
- *GV* *Goods Vehicle*
- *M/C* *Motor Cycle*
- *P/C* *Pedal Cycle*
- *PSV* *Bus/Coach*

Street Lighting
- *L* *Daylight*
- *DRK* *Dark*
- *NSL* *No Street Lights*
- *STL* *Street Lights*
- *USL* *Street LIghts Unlit*
- *STU* *Street Lights Unknown*

FACTORS
- *+VE* *Positive Breath Test*
- *R.TURN* *Right Turn Manoeuvre*
- *O/TAKE* *Overtaking Manoeuvre*
- *S.VEH* *Single Vehicle*

Special Conditions
- *ATS OUT* *Traffic Lights Not Working*
- *ATS DEF* *Traffic Lights Defective*
- *SIGNS* *Road Signs Defective or Obscurred*
- *RD WRKS* *Road Works*
- *Surface* *Road Surface Defective*

D-PRINT CRASH REPORT

18-Apr-2011
10:21:43

Kensington Health Centre - Accident Data Request for 13/04/2007 to 12/04/2010

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
9	**Road No A5047 Grid 337042E Section L07253 Ref 390558N**	SERIOUS	08/07/2008	Tue	15:30	L STL	Dry	Fine	N	S.VEH	PED
	A5047 EDGE LANE AT JUNCTION WITH B5173 DURNING ROAD, LIVERPOOL, MERSEYSIDE, L07253/L07241								Liverpool		
	VEH HEADING DOWN EDGE LANE WHEN PED WALKS OUT INFRONT OF HIM, VEH HITS PED IN DRIVERS SIDE						Veh1, Car, E -> W			Casualties 1 Vehicles 1	
10	**Road No A5047 Grid 337042E Section Ref 390558N**	SLIGHT	02/12/2008	Tue	14:54	L STL	Wet/Damp	Fine			
	A5047 EDGE LANE AT JUNCTION WITH B5173 DURNING ROAD, LIVERPOOL, MERSEYSIDE, L07253/L07241								Liverpool		
	VEH(1) BEHIND VEH(2) IN SLOW MOVING TRAFFIC VEH(2) STOPS AND VEH(1) COLLIDES WITH REAR OF VEH(2)						Veh1, Car, W -> E Veh2, Car, W -> E			Casualties 2 Vehicles 2	
11	**Road No A5047 Grid 337042E Section L07253 Ref 390558N**	SLIGHT	17/07/2009	Fri	15:10	L NSL	Dry	Rain	S	S.VEH R.TURN	PED
	A5047 EDGE LANE AT JUNCTION WITH B5173 DURNING ROAD, LIVERPOOL, MERSEYSIDE L07253/L07241								Liverpool		
	V1 IN MIDDLE OF JUNCTION WAITING TO MAKE A RIGHT TURN. AS V1 BEGINS TO TURN, THE FRONT N/S OF THE VEHICLE COLLIDES WITH V1 (PED).						Veh1, Car, S -> E			Casualties 1 Vehicles 1	
12	**Road No B5173 Grid 337050E Section Ref 390612N**	SLIGHT	05/02/2009	Thu	16:21	DRK STL	Wet/Damp	Snow	U	S.VEH	PED
	B5173 HOLT ROAD AT JUNCTION WITH U TOFT STREET, LIVERPOOL, MERSEYSIDE L07341/L07579								Liverpool		
	C1 (PED) RAN INTO PATH OF V1 FROM BETWEEN PARKED VEHICLES AND COLLIDED WITH FNS OF V1.						Veh1, Car, N -> S			Casualties 1 Vehicles 1	

Key

Involved
- *PED* Pedestrian
- *HGV* Heavy Goods Vehicle
- *GV* Goods Vehicle
- *M/C* Motor Cycle
- *P/C* Pedal Cycle
- *PSV* Bus/Coach

Street Lighting
- *L* Daylight
- *DRK* Dark
- *NSL* No Street Lights
- *STL* Street Lights
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FACTORS
- *+VE* Positive Breath Test
- *R.TURN* Right Turn Manoeuvre
- *O/TAKE* Overtaking Manoeuvre
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Special Conditions
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- *Surface* Road Surface Defective

D-PRINT CRASH REPORT

18-Apr-2011
10:21:43

Kensington Health Centre - Accident Data Request for 13/04/2007 to 12/04/2010

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
13	**Road No B5173 Grid 337051E Section L07341 Ref 390616N**	SLIGHT	30/05/2009	Sat	18:00	L STL	Dry	Fine			
	B5173 HOLT ROAD AT HOUSE NAME 116 AT JUNCTION WITH U WEDGEWOOD STREET, LIVERPOOL, MERSEYSIDE, L07341/L07619								Liverpool		
	V1 DRIVER GLANCES AWAY FROM THE ROAD FOR A SPLIT SECOND - V2 DRIVER BRAKES & V1 COLLIDES WITH THE REAR OF V2						Veh1, Car, S -> N Veh2, Car, S -> N				Casualties 3 Vehicles 2
14	**Road No B5173 Grid 337061E Section Ref 390660N**	SLIGHT	02/12/2008	Tue	15:05	L STL	Dry	Fine	W	O/TAKE	GV
	B5173 HOLT ROAD AT JUNCTION WITH U BRAE STREET, LIVERPOOL, MERSEYSIDE, L07341/L07151								Liverpool		PED
	TRAFFIC STATIONARY IN LINE, PED STEPS OUT WITHOUT LOOKING AND RUNS INTO VEH(1) WHICH WAS OVERTAKING						Veh1, Taxi, N -> S Veh2, Goods<3.5T, N -> S				Casualties 1 Vehicles 2
15	**Road No A5047 Grid 337105E Section L07253 Ref 390565N**	SLIGHT	09/03/2009	Mon	07:00	L STL	Dry	Fine			
	A5047 EDGE LANE 150 METRES WEST OF U BOTANIC PARK, LIVERPOOL, MERSEYSIDE, L07253/L07141								Liverpool		
	VEH(2) MOVING SLOWLY VEH(1) IN NEARSIDE LANE COLLIDES WITH VEH(2) AS ROAD NARROWS						Veh1, Car, E -> W Veh2, Car, E -> W				Casualties 1 Vehicles 2

Key

Involved
- *PED* *Pedestrian*
- *HGV* *Heavy Goods Vehicle*
- *GV* *Goods Vehicle*
- *M/C* *Motor Cycle*
- *P/C* *Pedal Cycle*
- *PSV* *Bus/Coach*

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- *STL* *Street Lights*
- *USL* *Street LIghts Unlit*
- *STU* *Street Lights Unknown*

FACTORS
- *+VE* *Positive Breath Test*
- *R.TURN* *Right Turn Manoeuvre*
- *O/TAKE* *Overtaking Manoeuvre*
- *S.VEH* *Single Vehicle*

Special Conditions
- *ATS OUT* *Traffic Lights Not Working*
- *ATS DEF* *Traffic Lights Defective*
- *SIGNS* *Road Signs Defective or Obscurred*
- *RD WRKS* *Road Works*
- *Surface* *Road Surface Defective*

ACCIDENT SEVERITY UPTO 2009

	2007	2008	2009	Total
Fatal	0	0	0	0
Serious	0	1	1	2
Slight	1	7	5	13
Damage	0	0	0	0
Total	1	8	6	15

ACCIDENTS BY MONTH AND YEAR UPTO 2009

	2007	2008	2009	Total
January	0	0	0	0
February	0	1	1	2
March	0	1	1	2
April	0	0	0	0
May	0	1	2	3
June	0	0	0	0
July	0	1	1	2
August	0	0	0	0
September	0	1	0	1
October	0	0	1	1
November	1	1	0	2
December	0	2	0	2
Total	1	8	6	15
%	7%	53%	40%	100%

ACCIDENTS BY DAY AND TIME

	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
Midnight - 00:59	0	0	0	0	0	0	0	0
01:00 - 01:59	0	0	0	1	0	0	1	2
02:00 - 02:59	0	0	0	0	0	0	0	0
03:00 - 03:59	0	0	0	0	0	0	0	0
04:00 - 04:59	0	0	0	0	0	0	0	0
05:00 - 05:59	0	0	0	0	0	0	0	0
06:00 - 06:59	0	0	0	0	0	0	0	0
07:00 - 07:59	0	1	0	0	0	0	0	1
08:00 - 08:59	0	0	0	0	0	0	0	0
09:00 - 09:59	0	0	0	0	0	0	0	0
10:00 - 10:59	0	0	0	0	0	0	0	0
11:00 - 11:59	0	0	0	0	0	0	1	1
12:00 - 12:59	0	0	0	0	0	0	0	0
13:00 - 13:59	0	0	1	0	0	0	0	1
14:00 - 14:59	0	0	1	0	1	0	0	2
15:00 - 15:59	0	0	2	0	0	2	0	4
16:00 - 16:59	0	0	0	0	1	0	0	1
17:00 - 17:59	0	0	0	1	0	0	0	1
18:00 - 18:59	0	0	0	1	0	0	1	2
19:00 - 19:59	0	0	0	0	0	0	0	0
20:00 - 20:59	0	0	0	0	0	0	0	0
21:00 - 21:59	0	0	0	0	0	0	0	0
22:00 - 22:59	0	0	0	0	0	0	0	0
23:00 - 23:59	0	0	0	0	0	0	0	0
Total	0	1	4	3	2	2	3	15
%	0%	7%	27%	20%	13%	13%	20%	100%

JUNCTION DETAIL

	Number	%
T OR STAGGERED	6	40
CROSS ROADS	5	33
OTHER JUNCTION	2	13
NOT AT JUNCTION	2	13
TOTAL	**15**	

JUNCTION CONTROLS

	Number	%
AUTOMATIC TRAFFIC SIG	6	40
GIVE WAY SIGN	7	47
NOT AT JUNCTION	2	13
TOTAL	**15**	

SPEED LIMIT

	Number	%
30 MPH	14	93
40 MPH	1	7
TOTAL	**15**	

ROAD CLASS

	Number	%
A	9	60
B	5	33
UNCLASSIFIED	1	7
TOTAL	**15**	

NUMBER OF ACCIDENTS INVOLVING PEDESTRIANS

Number	%
5	33

NUMBER OF ACCIDENTS INVOLVING SKIDDING

Number	%
1	7

WEATHER

	Number	%
FINE	12	80
RAIN	1	7
SNOW	1	7
FINE WIND	1	7
TOTAL	**15**	

ROAD SURFACE

	Number	%
DRY	11	73
WET	4	27
TOTAL	**15**	

LIGHT CONDITIONS

	Number	%
LIGHT	11	73
DARK	4	27
TOTAL	**15**	

CASUALTY SEVERITY UPTO 2009

	2007	2008	2009	Total
Fatal	0	0	0	0
Serious	0	1	1	2
Slight	1	11	8	20
Total	1	12	9	22
%	5%	55%	41%	100%

CASUALTIES BY MONTH AND YEAR UPTO 2009

	2007	2008	2009	Total
January	0	0	0	0
February	0	1	1	2
March	0	1	1	2
April	0	0	0	0
May	0	2	4	6
June	0	0	0	0
July	0	1	1	2
August	0	0	0	0
September	0	3	0	3
October	0	0	2	2
November	1	1	0	2
December	0	3	0	3
Total	1	12	9	22
%	5%	55%	41%	100%

CASUALTIES BY DAY AND TIME

	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
Midnight - 00:59	0	0	0	0	0	0	0	0
01:00 - 01:59	0	0	0	1	0	0	2	3
02:00 - 02:59	0	0	0	0	0	0	0	0
03:00 - 03:59	0	0	0	0	0	0	0	0
04:00 - 04:59	0	0	0	0	0	0	0	0
05:00 - 05:59	0	0	0	0	0	0	0	0
06:00 - 06:59	0	0	0	0	0	0	0	0
07:00 - 07:59	0	1	0	0	0	0	0	1
08:00 - 08:59	0	0	0	0	0	0	0	0
09:00 - 09:59	0	0	0	0	0	0	0	0
10:00 - 10:59	0	0	0	0	0	0	0	0
11:00 - 11:59	0	0	0	0	0	0	1	1
12:00 - 12:59	0	0	0	0	0	0	0	0
13:00 - 13:59	0	0	2	0	0	0	0	2
14:00 - 14:59	0	0	2	0	1	0	0	3
15:00 - 15:59	0	0	2	0	0	2	0	4
16:00 - 16:59	0	0	0	0	1	0	0	1
17:00 - 17:59	0	0	0	3	0	0	0	3
18:00 - 18:59	0	0	0	1	0	0	3	4
19:00 - 19:59	0	0	0	0	0	0	0	0
20:00 - 20:59	0	0	0	0	0	0	0	0
21:00 - 21:59	0	0	0	0	0	0	0	0
22:00 - 22:59	0	0	0	0	0	0	0	0
23:00 - 23:59	0	0	0	0	0	0	0	0
Total	0	1	6	5	2	2	6	22
%	0%	5%	27%	23%	9%	9%	27%	100%

CASUALTIES BY TYPE AND AGE GROUPING

	Unknown Age	0 to 4	5 to 15	16 to 19	20 to 29	30 to 59	60 Plus	Total	%
PEDESTRIAN	0	0	3	0	1	1	0	**5**	23
PTW RIDER	0	0	0	0	0	2	0	**2**	9
CAR DRIVER	0	0	0	0	4	2	0	**6**	27
CAR PASSENGER	0	1	1	0	2	2	0	**6**	27
HACK/PRI DRIVER	0	0	0	0	0	1	0	**1**	5
HACK/PRI PASS	0	0	0	1	0	1	0	**2**	9
TOTAL	**0**	**1**	**4**	**1**	**7**	**9**	**0**	**22**	
%	0	5	18	5	32	41	0		

Number of Casualties with unknown age: 0

VEHICLES INVOLVED BY TYPE AND AGE OF DRIVER

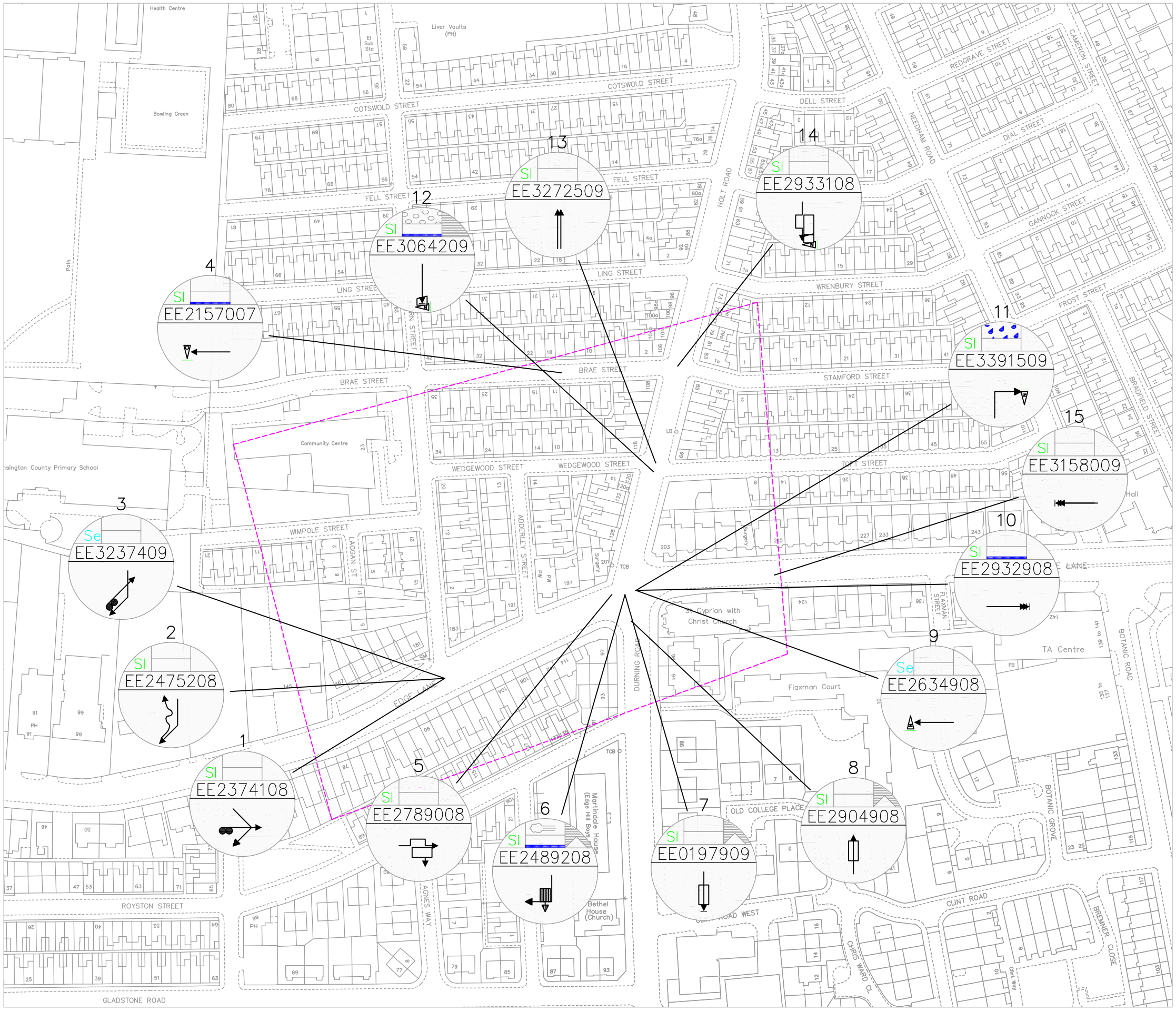
	0 to 15	16 to 19	20 to 29	30 to 59	60 Plus	Unknown	Total	%
PTW	0	0	0	2	0	0	**2**	8
CAR	0	0	6	9	0	2	**17**	65
GOODS < 3.5T	0	0	0	1	0	0	**1**	4
HACKNEY/PRIVATE	0	0	0	6	0	0	**6**	23
TOTAL	**0**	**0**	**6**	**18**	**0**	**2**	**26**	
%	0	0	23	69	0	8		

VEHICLE MANOEUVRES

	Number	%
WAITING TO GO AHEAD BUT HELD UP	3	12
STOPPING	6	23
STARTING	1	4
TURNING RIGHT	5	19
WAITING TO TURN RIGHT	1	4
OVERTAKING MOVING VEHICLE ON ITS NEARSIDE	1	4
OVERTAKING ON NEARSIDE	1	4
GOING AHEAD LEFT HAND BEND	1	4
GOING AHEAD OTHER	7	27
TOTAL	**26**	

BREATH TEST

	Number	%
NEGATIVE	10	38
NOT REQUESTED	7	27
DRIVER NOT CONTACTED	7	27
MEDICAL REASONS	2	8
TOTAL	**26**	



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NOTES

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Contractors shall verify and be responsible for all dimensions and conditions and shall report any discrepancies to the issuing office before proceeding with any work. Drawings shall not be scaled.

REVISION HISTORY

First Floor Station House, Mercury Court,
Tithebarn Street, Liverpool L2 2QP
Tel: 0151-237 2020 Fax: 0151-237 4000
www.2020liverpool.co.uk

INVESTOR IN PEOPLE

Mouchel working in Partnership with Liverpool City Council

PROJECT TITLE

Accident Data Request 13/04/07 to 12/04/10

DRAWING INFORMATION

15 Recorded PIA's

Survey By		Survey Date	
Design By		Design Date	
Drawn By	B.I.S	Creation Date	18/04/2011
Checked By	B.I.S	Checked Date	18/04/2011
Approv'd By		Approv'd Date	
Drawing Status	INFORMATION	Drawing Scale	Not to Scale
Drawing Number		Revision	

File Name

TCSU Site Ref	N\A	BES Ref	N\A

A3 395 x 272mm

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