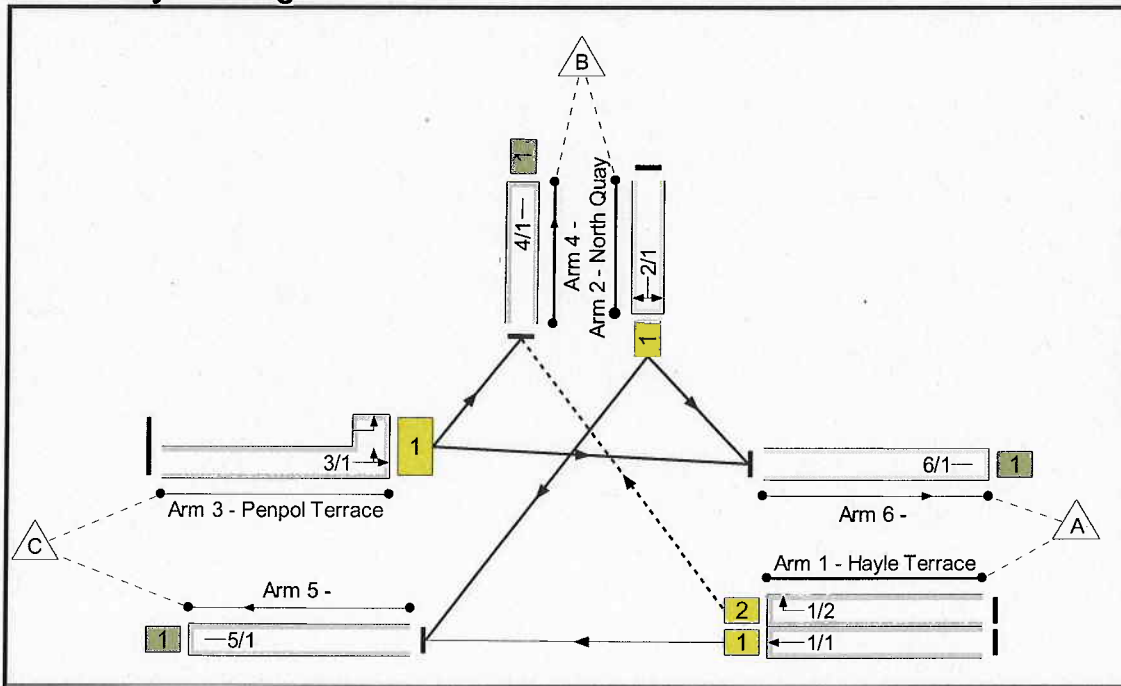


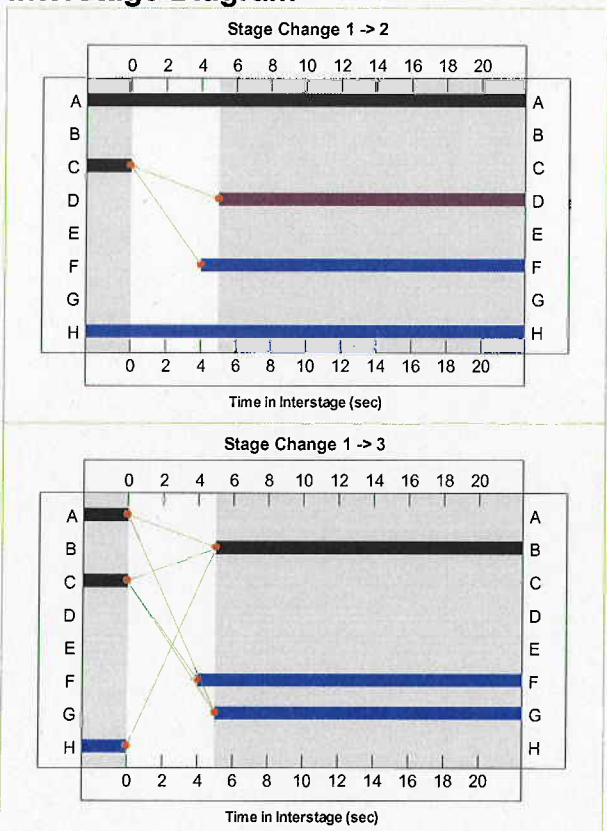
Appendix J Junction Modelling: North Quay Access (on CD only)

North Quay linsig model 2017 PM with worst case development

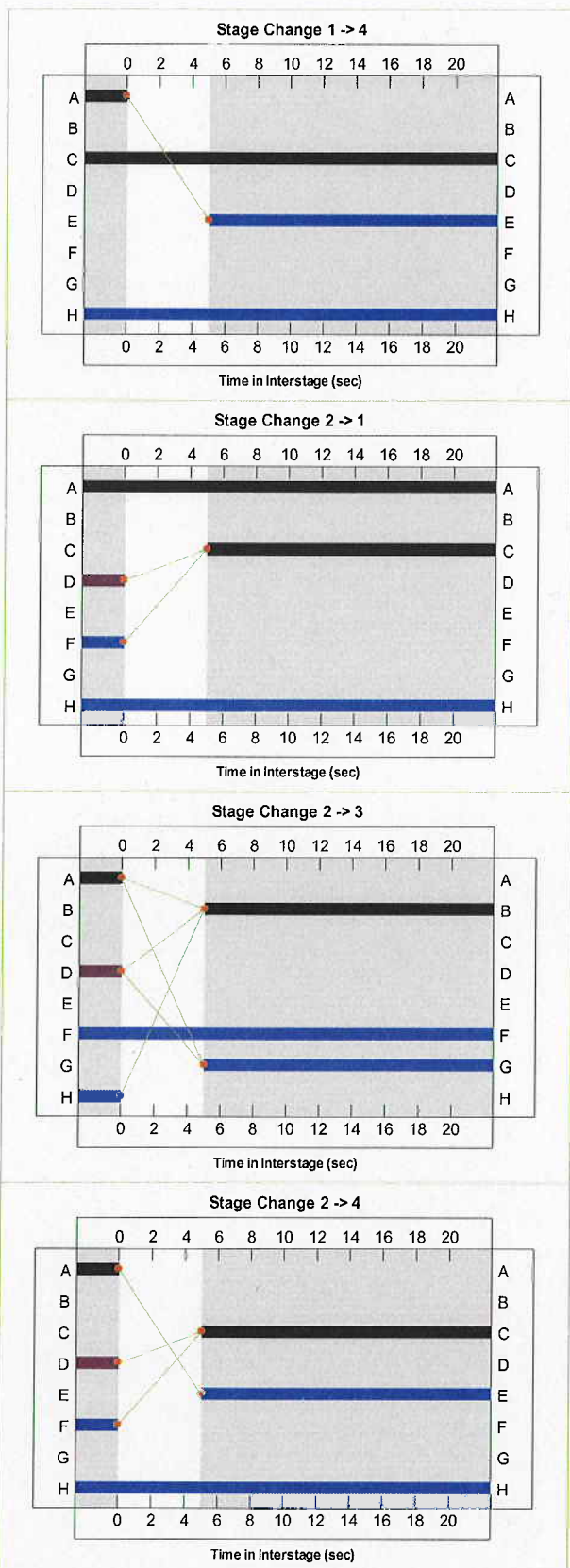
**Flow Group 24: '2017 August PM with development (ROBUST trips)'
Junction Layout Diagram**



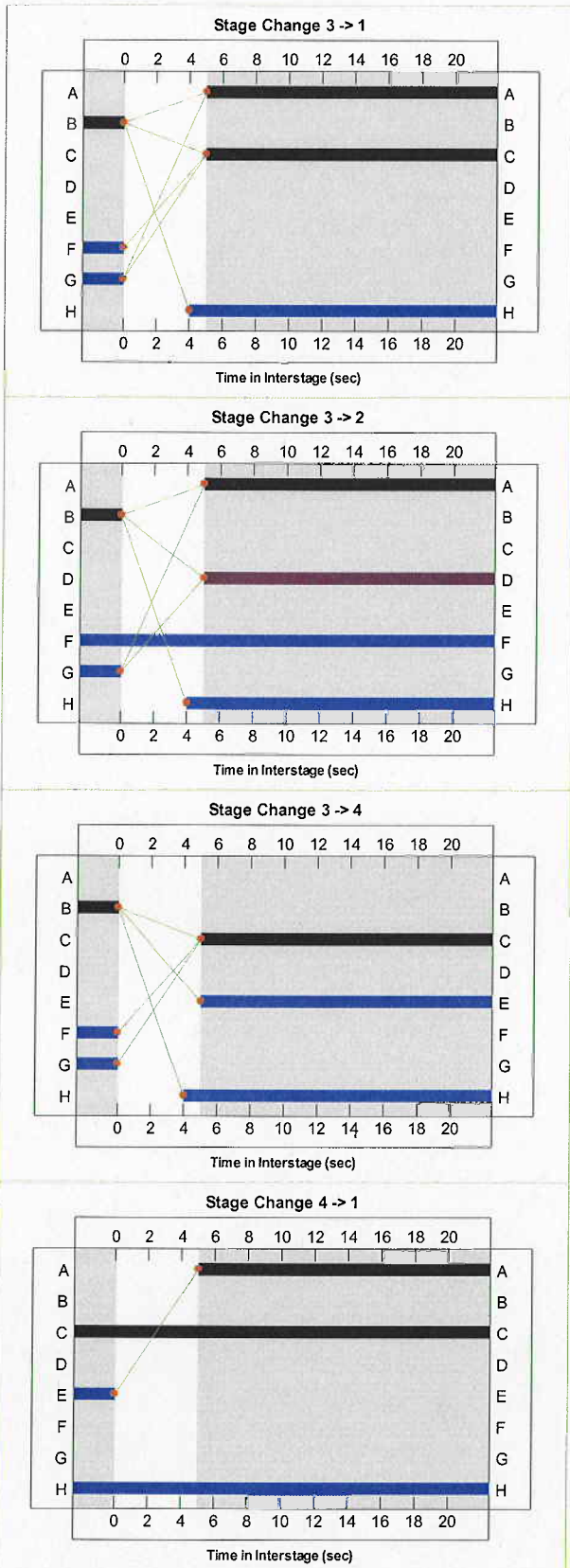
Interstage Diagram



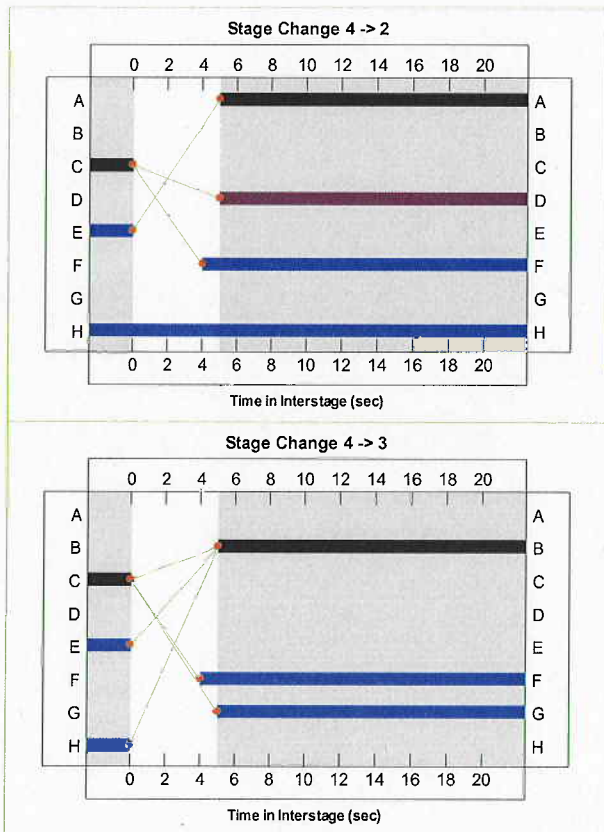
North Quay linsig model 2017 PM with worst case development



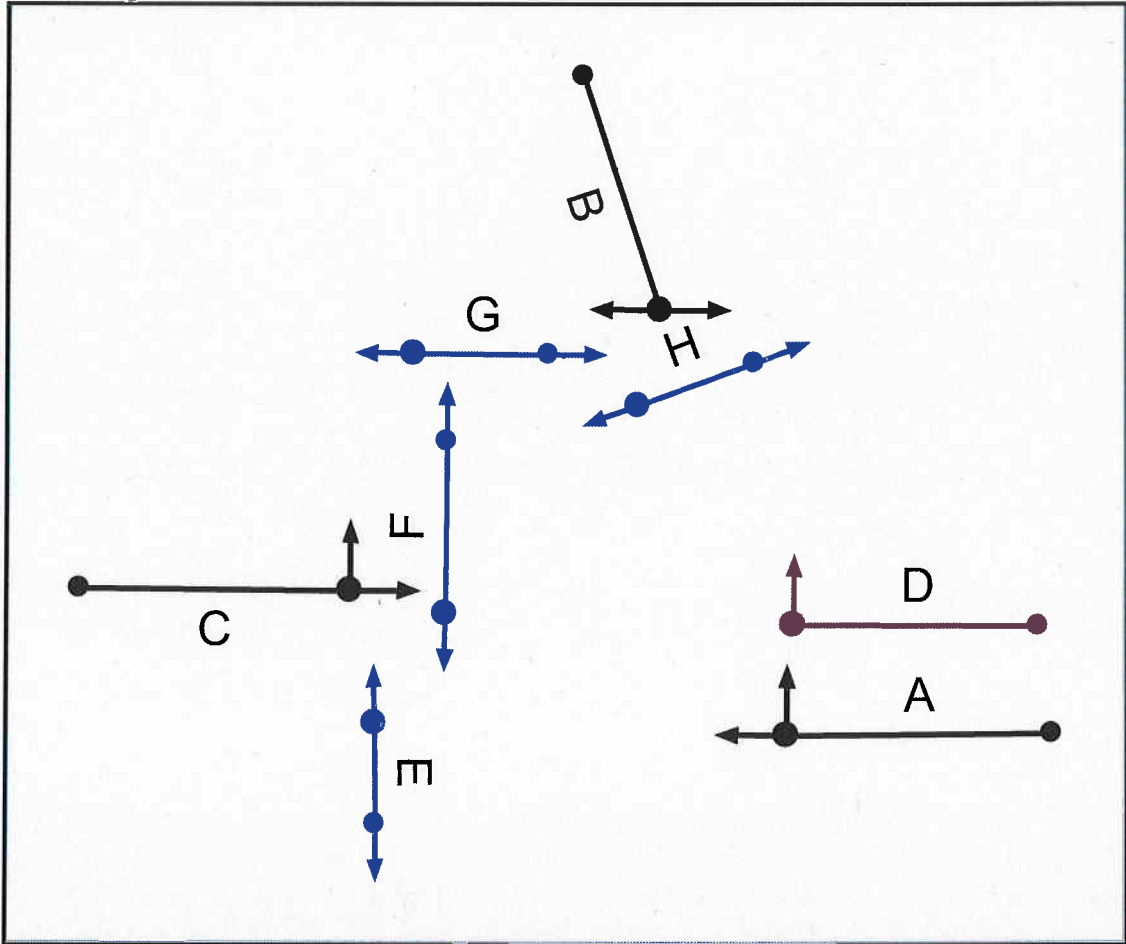
North Quay linsig model 2017 PM with worst case development



North Quay linsig model 2017 PM with worst case development



Phase Diagram



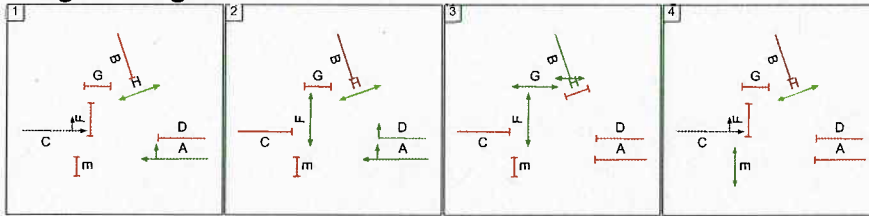
Phase Intergrens Matrix

		Starting Phase							
		A	B	C	D	E	F	G	H
Terminating Phase	A	-	5	-	-	5	-	5	-
	B	5	-	5	5	5	-	-	4
	C	-	5	-	5	-	4	5	-
	D	-	5	5	-	-	-	5	-
	E	5	5	-	-	-	-	-	-
	F	-	-	5	-	-	-	-	-
	G	5	-	5	5	-	-	-	-
	H	-	5	-	-	-	-	-	-

Phase Delays

There are no phase delays defined in this stage stream

Stages Diagram



Lane Saturation Flows

Arm/ Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat flow (PCU/Hr)
1/1 (Hayle Terrace Lane 1)							This lane uses a directly entered Saturation Flow 1800
1/2 (Hayle Terrace Lane 2)							This lane uses a directly entered Saturation Flow 1400
2/1 (North Quay Lane 1)							This lane uses a directly entered Saturation Flow 1958
3/1 (Penpol Terrace Lane 1)							This lane uses a directly entered Saturation Flow 1400
3/2 (Penpol Terrace Lane 2)							This lane uses a directly entered Saturation Flow 2000
4/1							This lane uses a directly entered Saturation Flow 2105
5/1							This lane uses a directly entered Saturation Flow 2105
6/1							This lane uses a directly entered Saturation Flow 2105

Traffic Flow Matrix

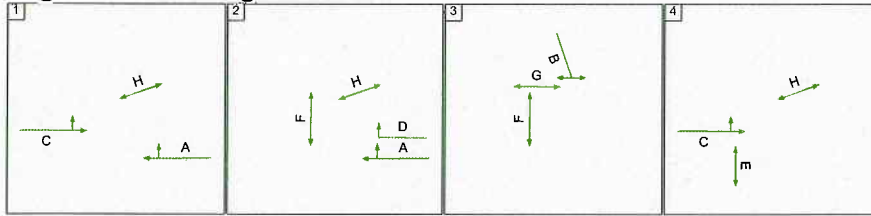
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	136	937	1073
	B	172	0	158	330
	C	1026	166	0	1192
	Tot.	1198	302	1095	2595

Stage Timings

Stage	1	2	3	4
Duration	64	7	22	7
Change Point	0	69	81	108

Signal Plan Diagram



Link Green Times

Arm/Link	Link Name	Link Type	Num Lanes	Phases	Start Green	End Green
1/1	Hayle Terrace Ahead	U	1	A	5	81
1/2	Hayle Terrace Right	O	1	A D	5	81
2/1	North Quay Right Left	U	1	B	86	108
3/1	Penpol Terrace Left Ahead	U	2	C	113	69

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	Hayle Terrace Ahead	U	N/A	N/A	A		1	76	-	937	1800	1800	1155	81.1
1/2	Hayle Terrace Right	O	N/A	N/A	A	D	1	76	7	136	1400	296	190	71.6
2/1	North Quay Right Left	U	N/A	N/A	B		1	22	-	330	1958	1958	375	87.9
3/1	Penpol Terrace Left Ahead	U	N/A	N/A	C		1	76	-	1192	3400	2047	1313	90.8
4/1		U	N/A	N/A	-		-	-	-	302	2105	2105	2105	14.3
5/1		U	N/A	N/A	-		-	-	-	1095	2105	2105	2105	52.0
6/1		U	N/A	N/A	-		-	-	-	1198	2105	2105	2105	56.9
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	937	937	-	-	-	4.2	2.1	-	6.3	24.2	23.2	2.1	25.3	
1/2	136	136	13	117	6	0.8	1.2	1.1	3.2	83.8	2.3	1.2	3.5	
2/1	330	330	-	-	-	4.3	3.2	-	7.5	82.0	10.6	3.2	13.8	
3/1	1192	1192	-	-	-	5.8	4.6	-	10.4	31.4	33.4	4.6	38.0	
4/1	302	302	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1	
5/1	1095	1095	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5	
6/1	1198	1198	-	-	-	0.0	0.7	-	0.7	2.0	0.0	0.7	0.7	
PRC for Signalled Links (%): -0.8 Total Delay for Signalled Links (pcuHr): 27.36 PRC Over All Links (%): -0.8 Total Delay Over All Links (pcuHr): 28.64 Cycle Time (s): 120														

North Quay linsig model 2017 PM with worst case development

Flow Profiles Diagram

No Flow Profiles were specified in the Flow Profiles View

Network Summary

Total Network Delay: 28.64 pcuHr

Worst PRC: -0.85 % (On Link 3/1)