



**QBC Monitoring Report**  
**Dublin Transportation Office**  
**November 2002**

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## **1 Introduction**

### **1.1 Background**

The Dublin Transportation Office assumed responsibility for Quality Bus Corridor monitoring in November 2002. Monitoring had previously been undertaken on a bi-annual basis by Dublin City Council. Approval for carrying out the monitoring on an annual basis had been given at the March 2002 Steering Committee meeting.

The intention to undertake monitoring on an annual basis will allow the measurement of QBC performance both at a point in time, and over time.

The further development of an expanded Quality Bus Network is a key element of the DTO transport strategy as outlined in *A Platform for Change*. Monitoring the performance of the Quality Bus Corridors in operation helps to measure the efficiency and effectiveness of the bus mode in the delivery of the transport objectives set out in the strategy.

### **1.2 Structure of the Report**

**Section 2** sets out the main findings from the November 2002 QBC monitoring exercise based on the report given to the DTO Steering Committee at its April 2003 meeting.

**Section 3** is a series of “Key Objectives” reports detailing the main results for each QBC

**Section 4** sets out the purpose, scope and methodology of the annual monitoring exercise.

**Section 5** details the Specification against which the performance of each Quality Bus Corridor is measured.

**Section 6** is a summary of the progress made from 1997 to 2002 in respect of the reduction in the number of cars crossing the Canal Cordon Points and the increase in bus service supply and resultant patronage.

**Section 7** is a summary of comparative bus and car average morning peak period journey times for each of the 9 QBCs monitored.

**Section 8** contains tables of Performance Indicators measured in November 2002.

**Section 9** is a table showing Mode Share expressed in terms of the percentage of total persons crossing the canal cordon points by mode of travel.

**Section 10** contains an example of the “Final Reports” for each QBC showing the detailed results for Stillorgan QBC.

**Section 11** contains tables showing comparative bus and car journey times for each QBC on a sectional basis

**Section 12** contains tables showing bus speeds for each QBC on a sectional basis.

**Section 13** contains a “League Table” of results.

**Section 14** contains graphs showing the performance of each QBC on a sectional basis. The graphs show the variation in bus operating speeds over different sections of each QBC and over different time periods. The examples shown are supported by a commentary.

**Section 15** deals with the results from corridors monitored prior to the implementation of bus priority measures.

**Appendix 1** is a table showing the complete list of survey points for the November 2002 monitoring exercise.

**Appendix 2** contains maps showing the scope of the monitoring for each QBC including those monitored on a pre QBC basis.

## 2 Main Findings

- 2.1 The number of cars crossing the canal cordon points has reduced by 6508 (17.77%) from November 1997 to November 2002. See [Table 2](#) for details.
- 2.2 The number of buses supplied by Dublin Bus has increased by 204 (32.23%) from November 1997 to November 2002. See [Table 2](#) for details.
- 2.3 The number of bus passengers has increased by 16068 (52.61%) from November 1997 to November 2002. See [Table 2](#) for details
- 2.4 In the 12 months from November 2001 to November 2002 the number of cars crossing the canal cordon points has reduced by 2424 (7.19%). See [Table 3](#) for details.
- 2.5 In the 12 months from November 2001 to November 2002 the number of bus passengers has increased by 544 (1.18%) with passenger growth of greater than 20% on Stillorgan QBC. See [Table 3](#) for details.
- 2.6 Bus average journey times were less than the corresponding car average journey times in 8 out of 9 QBCs with significant (greater than 30%) variations in 7 QBCs. See [Table 4](#) for details.
- 2.7 Bus mode share at the canal cordon points crossed by QBCs has increased from 45.34% in November 2001 to 50.94% in November 2002. See [Table 5](#) & [Table 6](#) for details.

### **3 Key Objectives Reports**

The key results for each QBC are set out in terms of Key Objectives Reports.

Each report summarises the main performance indicators as follows:

- Bus journey times
- Bus speeds
- Comparative bus and car journey times
- Passenger waiting times
- Mode Share
- Passenger journeys

The codes in the left hand column named “Spec Ref” match the performance indicators set out in the QBC Specification.

**Tables 1a to 1i** inclusive show the results for the 9 main radial QBCs.

Table 1a Blanchardstown QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT BLANCHARDSTOWN NOVEMBER 2002									
Spec Ref	KEY OBJECTIVES	PERFORMANCE INDICATORS				NOTES			
A5	Corridor Bus Journey Times	<b>AM Peak</b>		<b>PM Peak</b>		New River Rd to Ormond/Merchants Quay			
A5	Corridor Bus Journey Time (Average)	37:01		21:31					
A5	Corridor Bus Journey Time (Range)	33:35 to 40:29		20:05 to 24:03					
A5	Corridor Bus Speed	12.18 km/h		20.73 km/h					
A5	Comparison of Corridor Journey Times Bus v Car	<b>Bus AM Peak</b>		<b>Car AM Peak</b>		New River Rd to Manor Street			
A5	Comparison of Bus v Car Journey Times (Average)	24:47		23:10					
A5	Comparison of Bus v Car Journey Times (Range)	20:36 to 29:41		21:31 to 24:21					
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>		Timings at Navan Road Garda Station			
B1a	Average Peak Wait Time	3 minutes		1:41					
B1b	Average Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>					
B1c	Average Off Peak Wait Time	2 minutes		0					
B1d	Average Off Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>					
B2	Boarding & Alighting Time / % of total journey time	4 minutes		4:57					
		<b>Target</b>		<b>Actual</b>		BAC On Bus Survey Nov 02			
		2 minutes		0:57					
		<b>AM Peak</b>		<b>PM Peak</b>					
		12.21%		12.01%					
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	% Mode share at Canal Cordon				% Mode share at Navan Road			
		<b>Car</b>		<b>Bus</b>		<b>Car</b>		<b>Bus</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		45.96%	41.32%	40.30%	45.78%	N/A	27.70%	N/A	67.02%
		<b>Taxi</b>		<b>Cycle</b>		<b>Taxi</b>		<b>Cycle</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		N/A	0.66%	1.80%	1.72%	N/A	0.71%	N/A	1.04%
		<b>Walking</b>		<b>Total Persons</b>		<b>Walking</b>		<b>Total Persons</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		9.41%	8.08%	15493	15971	N/A	0.66%	N/A	9767
E1	Passenger Journeys (Total)	<b>Nov 2001</b>		<b>Nov 2002</b>		Cordon Counts (0700 - 1000) BAC Designated QBC Routes			
		N/A		4912					



Table 1b Finglas QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT FINGLAS NOVEMBER 2002						
Spec Ref	KEY OBJECTIVES	PERFORMANCE INDICATORS				NOTES
A5	Corridor Bus Journey Times	<b>AM Peak</b>		<b>PM Peak</b>		Finglas to Parnell Square
A5	Corridor Bus Journey Time (Average)	18:09		25:09		
A5	Corridor Bus Journey Time (Range)	15:45 to 20:50		21:13 to 27:38		
A5	Corridor Bus Speed	17.43 km/h		12.11 km/h		
A5	Comparison of Corridor Journey Times Bus v Car	<b>Bus AM Peak</b>		<b>Car AM Peak</b>		Finglas to Dorset St Lower
A5	Comparison of Bus v Car Journey Times (Average)	13:48		23:45		
A5	Comparison of Bus v Car Journey Times (Range)	11:56 to 18:25		20:54 to 28:02		
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>		Timings at Harts Corner
B1a	Average Peak Wait Time	3 minutes		2:56		
B1b	Average Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>		
		2 minutes		0		
B1c	Average Off Peak Wait Time	<b>Target</b>		<b>Actual</b>		
		4 minutes		5:10		
B1d	Average Off Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>		BAC On Bus Survey Nov 02
		2 minutes		1:10		
B2	Boarding & Alighting Time / % of total journey time	<b>AM Peak</b>		<b>Off Peak</b>		
		12.11%		14.03%		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>% Mode share at Canal Cordon</b>				Survey at Binn's Bridge Includes Swords QBC
		<b>Car</b>		<b>Bus</b>		
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	
		37.77%	33.87%	49.18%	54.16%	
		<b>Taxi</b>		<b>Cycle</b>		
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	
		N/A	1.03%	2.00%	1.97%	
		<b>Walking</b>		<b>Total Persons</b>		
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	
		8.24%	6.19%	16594	16958	
E1	Passenger Journeys (Total)	<b>Nov 2001</b>		<b>Nov 2002</b>		Cordon Counts (0700 - 1000) BAC Designated QBC Routes
		N/A		1832		

Table 1c Lucan QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT LUCAN NOVEMBER 2002									
Spec Ref	KEY OBJECTIVES	PERFORMANCE INDICATORS				NOTES			
A5	Corridor Bus Journey Times	<b>AM Peak</b>		<b>PM Peak</b>		Foxhunter Pub to City Centre via Bypass			
A5	Corridor Bus Journey Time (Average)	31:33		29:51					
A5	Corridor Bus Journey Time (Range)	26:00 to 35:49		23:40 to 36:02					
A5	Corridor Bus Speed								
A5	Comparison of Corridor Journey Times Bus v Car	<b>Bus AM Peak</b>		<b>Car AM Peak</b>					
A5	Comparison of Bus v Car Journey Times (Average)	31:33		34:00					
A5	Comparison of Bus v Car Journey Times (Range)	26:00 to 35:49		24:40 to 50:27					
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>		Timings at Palmerston			
B1a	Average Peak Wait Time	3 minutes		2:21					
B1b	Average Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>					
		2 minutes		0					
B1c	Average Off Peak Wait Time	<b>Target</b>		<b>Actual</b>					
		4 minutes		5:03					
B1d	Average Off Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>		BAC On Bus Survey Nov 02			
B2	Boarding & Alighting Time / % of total journey time	<b>AM Peak</b>		<b>PM Peak</b>					
		10.06%		14.69%					
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>% Mode share at Canal Cordon</b>				<b>% Mode share at Palmerston</b>			
		<b>Car</b>		<b>Bus</b>		<b>Car</b>		<b>Bus</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		55.33%	47.46%	38.40%	45.62%	N/A	45.17%	N/A	47.68%
		<b>Taxi</b>		<b>Cycle</b>		<b>Taxi</b>		<b>Cycle</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		N/A	0.86%	0.71%	0.83%	N/A	0.43%	N/A	0.50%
		<b>Walking</b>		<b>Total Persons</b>		<b>Walking</b>		<b>Total Persons</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		0.89%	0.89%	15490	17054	N/A	1.78%	N/A	13020
E1	Passenger Journeys (Total)	<b>Nov 2001</b>		<b>Nov 2002</b>		Cordon Counts (0700 - 1000) BAC Designated QBC Routes			
		N/A		4688					

Table 1d Malahide QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT MALAHIDE NOVEMBER 2002					
Spec Ref	KEY OBJECTIVES	PERFORMANCE INDICATORS		NOTES	
A5	Corridor Bus Journey Times	<b>AM Peak</b>		<b>PM Peak</b>	
A5	Corridor Bus Journey Time (Average)	28:23		37:17	
A5	Corridor Bus Journey Time (Range)	21:46 to 34:36		28:39 to 43:05	
A5	Corridor Bus Speed	12.97 km/h		10.28 km/h	
A5	Comparison of Corridor Journey Times Bus v Car	<b>Bus AM Peak</b>		<b>Car AM Peak</b>	
A5	Comparison of Bus v Car Journey Times (Average)	26:11		37:20	
A5	Comparison of Bus v Car Journey Times (Range)	19:19 to 34:13		31:41 to 46:14	
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>	
B1a	Average Peak Wait Time	3 minutes		1:46	
B1b	Average Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>	
B1c	Average Off Peak Wait Time	2 minutes		0	
B1d	Average Off Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>	
B2	Boarding & Alighting Time / % of total journey time	4 minutes		3:28	
		<b>Target</b>		<b>Actual</b>	
		2 minutes		0	
		<b>AM Peak</b>		<b>Off Peak</b>	
		21.01%		15.92%	
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>% Mode share at Canal Cordon</b>			
		<b>Car</b>		<b>Bus</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		26.00%	20.19%	64.30%	68.82%
		<b>Taxi</b>		<b>Cycle</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		N/A	1.84%	3.06%	2.52%
		<b>Walking</b>		<b>Total Persons</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		4.34%	4.42%	14043	13819
E1	Passenger Journeys (Total)	<b>Nov-01</b>		<b>Nov-02</b>	
		N/A		4796	

Table 1e North Clondalkin QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT NORTH CLONDALKIN NOVEMBER 2002									
Spec Ref	KEY OBJECTIVES	PERFORMANCE INDICATORS				NOTES			
A5	Corridor Bus Journey Times	<b>AM Peak</b>		<b>PM Peak</b>		Emmet Road to Westmoreland Street/Aston Quay			
A5	Corridor Bus Journey Time (Average)	19:15		33:47					
A5	Corridor Bus Journey Time (Range)	16:13 to 24:19		22:47 to 46:50					
A5	Corridor Bus Speed	11.17 km/h		7.95 km/h					
A5	Comparison of Corridor Journey Times Bus v Car	<b>Bus AM Peak</b>		<b>Car AM Peak</b>		Emmet Road to Cornmarket			
A5	Comparison of Bus v Car Journey Times (Average)	9:10		13:48					
A5	Comparison of Bus v Car Journey Times (Range)	7:08 to 10:26		6:20 to 19:20					
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>		Timings at James's Street			
B1a	Average Peak Wait Time	3 minutes		3:34					
B1b	Average Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>					
		2 minutes		0:34					
B1c	Average Off Peak Wait Time	<b>Target</b>		<b>Actual</b>					
		4 minutes		4:05					
B1d	Average Off Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>		BAC On Bus Survey Nov 02			
		2 minutes		0:05					
B2	Boarding & Alighting Time / % of total journey time	<b>AM Peak</b>		<b>PM Peak</b>					
		14.56%		18.28%					
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>% Mode share at Canal Cordon</b>				<b>% Mode share at Ballyfermot</b>			
		<b>Car</b>		<b>Bus</b>		<b>Car</b>		<b>Bus</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		36.87%	32.29%	55.84%	61.04%	N/A	44.84%	N/A	40.43%
		<b>Taxi</b>		<b>Cycle</b>		<b>Taxi</b>		<b>Cycle</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-01</b>	<b>Nov-01</b>	<b>Nov-02</b>
		N/A	0.77%	1.07%	0.77%	N/A	0.83%	N/A	0.85%
		<b>Walking</b>		<b>Total Persons</b>		<b>Walking</b>		<b>Total Persons</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		2.85%	2.37%	4746	4679	N/A	10.45%	N/A	5538
E1	Passenger Journeys (Total)	<b>Nov 2001</b>		<b>Nov 2002</b>		Cordon Counts (0700 - 1000) BAC QBC Designated Routes			
		N/A		1972					

**Table 1f Rathfarnham QBC**

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT RATHFARNHAM NOVEMBER 2002					
Spec Ref.	KEY OBJECTIVES	PERFORMANCE INDICATORS		NOTES	
A5	Corridor Bus Journey Times	<b>AM Peak</b>		<b>PM Peak</b>	
A5	Corridor Bus Journey Time (Average)	48:53		43:48	
A5	Corridor Bus Journey Time (Range)	36:55 to 68:52		40:28 to 49:42	
A5	Corridor Bus Speed	7.48 km/h		8.72 km/h	
A5	Comparison of Corridor Journey Times Bus v Car	<b>Bus AM Peak</b>		<b>Car AM Peak</b>	
A5	Comparison of Bus v Car Journey Times (Average)	34:55		36:22	
A5	Comparison of Bus v Car Journey Times (Range)	19:14 to 45:48		17:41 to 54:57	
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>	
B1a	Average Peak Wait Time	3 minutes		6:57	
B1b	Average Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>	
B1c	Average Off Peak Wait Time	2 minutes		3:57	
B1d	Average Off Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>	
B2	Boarding & Alighting Time / % of total journey time	4 minutes		12:18	
		<b>Target</b>		<b>Actual</b>	
		2 minutes		8:18	
		<b>AM Peak</b>		<b>Off Peak</b>	
		17.73%		18.59%	
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>% Mode share at Canal Cordon</b>			
		<b>Car</b>		<b>Bus</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		43.17%	38.74%	35.70%	42.48%
		<b>Taxi</b>		<b>Cycle</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		N/A	0.79%	5.43%	5.08%
		<b>Walking</b>		<b>Total Persons</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		11.53%	9.31%	9212	7858
E1	Passenger Journeys (Total)	<b>Nov-01</b>		<b>Nov-02</b>	
		N/A		2129	

Table 1g Stillorgan QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT STILLORGAN NOVEMBER 2002									
Spec Ref.	KEY OBJECTIVES	PERFORMANCE INDICATORS				NOTES			
A5	Corridor Bus Journey Times	<b>AM Peak</b>		<b>PM Peak</b>		Foxrock Church to Fleet Street			
A5	Corridor Bus Journey Time (Average)	40:57		47:16					
A5	Corridor Bus Journey Time (Range)	34:42 to 49:48		40:23 to 52:44					
A5	Corridor Bus Speed	16.03 km/h		14.27 km/h					
A5	Comparison of Corridor Journey Times Bus v Car	<b>Bus AM Peak</b>		<b>Car AM Peak</b>		Foxrock Church to Leeson Street			
A5	Comparison of Bus v Car Journey Times (Average)	32:55		65:43					
A5	Comparison of Bus v Car Journey Times (Range)	24:50 to 38:51		58:22 to 70:41					
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>		Timings at Donnybrook			
B1a	Average Peak Wait Time	3 minutes		1:01					
B1b	Average Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>					
		2 minutes		0					
B1c	Average Off Peak Wait Time	<b>Target</b>		<b>Actual</b>					
		4 minutes		5:54					
B1d	Average Off Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>		BAC On Bus Survey Nov 02			
		2 minutes		1:54					
B2	Boarding & Alighting Time / % of total journey time	<b>AM Peak</b>		<b>Off Peak</b>					
		18.86%		N/A					
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>% Mode share at Canal Cordon</b>				<b>% Mode share at Fosters Ave N11</b>			
		<b>Car</b>		<b>Bus</b>		<b>Car</b>		<b>Bus</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		40.53%	32.40%	34.49%	44.39%	N/A	52.13%	N/A	43.21%
		<b>Taxi</b>		<b>Cycle</b>		<b>Taxi</b>		<b>Cycle</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		N/A	0.83%	4.35%	5.00%	N/A	0.84%	N/A	0.91%
		<b>Walking</b>		<b>Total Persons</b>		<b>Walking</b>		<b>Total Persons</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>	<b>Nov-01</b>	<b>Nov-02</b>
		18.43%	14.26%	13870	13606	N/A	0.37%	N/A	16123
E1	Passenger Journeys (Total)	<b>Nov 2001</b>		<b>Nov 2002</b>		Cordon Counts (0700 - 1000) BAC Designated QBC Routes			
		N/A		4483					



Table 1h Swords QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT SWORDS NOVEMBER 2002					
Spec Ref.	KEY OBJECTIVES	PERFORMANCE INDICATORS		NOTES	
A5	Corridor Bus Journey Times	<b>AM Peak</b>	<b>PM Peak</b>	Swords Main St to O'Connell Street/Eden Quay	
A5	Corridor Bus Journey Time (Average)	<b>57:11</b>	<b>71:30</b>		
A5	Corridor Bus Journey Time (Range)	<b>44:25 to 66:08</b>	<b>57:41 to 79:23</b>		
A5	Corridor Bus Speed	<b>14.86 km/h</b>	<b>13.14 km/h</b>		
A5	Comparison of Corridor Journey Times Bus v Car	<b>Bus AM Peak</b>	<b>Car AM Peak</b>	Cloghran Roundabout to Richmond Rd	
A5	Comparison of Bus v Car Journey Times (Average)	<b>28:00</b>	<b>37:39</b>		
A5	Comparison of Bus v Car Journey Times (Range)	<b>21:58 to 36:13</b>	<b>24:41 to 47:14</b>		
B1	Passenger Wait Times	<b>Target</b>	<b>Actual</b>	Timings at Richmond Road	
B1a	Average Peak Wait Time	<b>3 minutes</b>	<b>4.04</b>		
B1b	Average Peak Excess Wait Time	<b>Target</b>	<b>Actual</b>		
B1c	Average Off Peak Wait Time	<b>2 minutes</b>	<b>1.04</b>		
B1d	Average Off Peak Excess Wait Time	<b>Target</b>	<b>Actual</b>		
B2	Boarding & Alighting Time / % of total journey time	<b>4 minutes</b>	<b>6:15</b>		
B2	Boarding & Alighting Time / % of total journey time	<b>Target</b>	<b>Actual</b>	BAC On Bus Survey Nov 02	
B2	Boarding & Alighting Time / % of total journey time	<b>2 minutes</b>	<b>2:15</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>AM Peak</b>	<b>Off Peak</b>	Survey at Binn's Bridge includes Finglas QBC	
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>12.11%</b>	<b>14.03%</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>% Mode share at Canal Cordon</b>			
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>Car</b>	<b>Bus</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>Nov-01</b>	<b>Nov-02</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>37.77%</b>	<b>33.87%</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>Nov-01</b>	<b>Nov-02</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>49.18%</b>	<b>54.16%</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>Taxi</b>	<b>Cycle</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>Nov-01</b>	<b>Nov-02</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>N/A</b>	<b>2.00%</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>1.03%</b>	<b>1.97%</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>Walking</b>	<b>Total Persons</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>Nov-01</b>	<b>Nov-02</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>8.24%</b>	<b>6.19%</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>Nov-01</b>	<b>Nov-02</b>		
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>16594</b>	<b>16958</b>		
E1	Passenger Journeys (Total)	<b>Nov 2001</b>	<b>Nov 2002</b>	Cordon Counts (0700 - 1000) BAC Designated Routes	
E1	Passenger Journeys (Total)	<b>N/A</b>	<b>2242</b>		

Table 1i Tallaght QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT TALLAGHT NOVEMBER 2002				
Spec Ref.	KEY OBJECTIVES	PERFORMANCE INDICATORS		NOTES
A5	Corridor Bus Journey Times	<b>AM Peak</b>	<b>PM Peak</b>	West of M50 to Camden St Lower
A5	Corridor Bus Journey Time (Average)	<b>50:07</b>	<b>38:21</b>	
A5	Corridor Bus Journey Time (Range)	<b>35:37 to 64:06</b>	<b>31:06 to 42:12</b>	
A5	Corridor Bus Speed	<b>9.06 km/h</b>	<b>12.18 km/h</b>	
A5	Comparison of Corridor Journey Times Bus v Car	<b>Bus AM Peak</b>	<b>Car AM Peak</b>	
A5	Comparison of Bus v Car Journey Times (Average)	<b>50:07</b>	<b>73:33</b>	
A5	Comparison of Bus v Car Journey Times (Range)	<b>35:37 to 64:06</b>	<b>49:16 to 96:32</b>	
B1	Passenger Wait Times	<b>Target</b>	<b>Actual</b>	Timings at Templeogue Road
B1a	Average Peak Wait Time	<b>3 minutes</b>	<b>2:59</b>	
B1b	Average Peak Excess Wait Time	<b>Target</b>	<b>Actual</b>	
B1c	Average Off Peak Wait Time	<b>2 minutes</b>	<b>0</b>	
B1d	Average Off Peak Excess Wait Time	<b>Target</b>	<b>Actual</b>	
B2	Boarding & Alighting Time / % of total journey time	<b>4 minutes</b>	<b>5:22</b>	BAC On Bus Survey Nov 02
		<b>2 minutes</b>	<b>1:22</b>	
		<b>AM Peak</b>	<b>Off Peak</b>	
		<b>16.16%</b>	<b>12.09%</b>	
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	<b>% Mode share at Canal Cordon</b>		
		<b>Car</b>	<b>Bus</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	
		<b>24.15%</b>	<b>24.46%</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	
		<b>47.01%</b>	<b>49.25%</b>	
		<b>Taxi</b>	<b>Cycle</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	
		<b>N/A</b>	<b>0.55%</b>	
		<b>5.16%</b>	<b>4.61%</b>	
		<b>Walking</b>	<b>Total Persons</b>	
		<b>Nov-01</b>	<b>Nov-02</b>	
		<b>22.00%</b>	<b>19.21%</b>	
		<b>12673</b>	<b>11739</b>	
E1	Passenger Journeys (Total)	<b>Nov-01</b>	<b>Nov-02</b>	Cordon Counts (0700 - 1000) BAC QBC Designated Routes
		<b>N/A</b>	<b>3560</b>	

## 4 Purpose, Scope & Methodology

### 4.1 Purpose

The purpose of the monitoring exercise is to undertake a time series analysis of the operation of each QBC including journey times of buses within sections of each corridor, equivalent journey times by car, the pattern of flow of buses and the resultant passenger wait times. Additional data is collected and used to measure bus usage, modal share for citybound journeys, the level of bus priority, passenger waiting facilities, passenger information, the quality of buses and passenger satisfaction levels. The results are compared to the specification set out and agreed for the performance of Quality Bus Corridors.

### 4.2 Scope

9 QBC corridors (**Table A**) were monitored over a 4 week period in November 2002. Monitoring was also undertaken on sections of the proposed Crumlin Road and Rock Road QBCs to establish a base performance prior to the implementation of QBC measures. See **Appendix 1** for details of the survey points.

### 4.3 Methodology

Roadside surveys were carried out at strategic locations on each QBC measuring sectional journey times by bus and car over the morning peak period, the evening peak period and off peak inbound and outbound journeys. The 2002 surveys were carried out by *Colin Buchanan & Partners*.

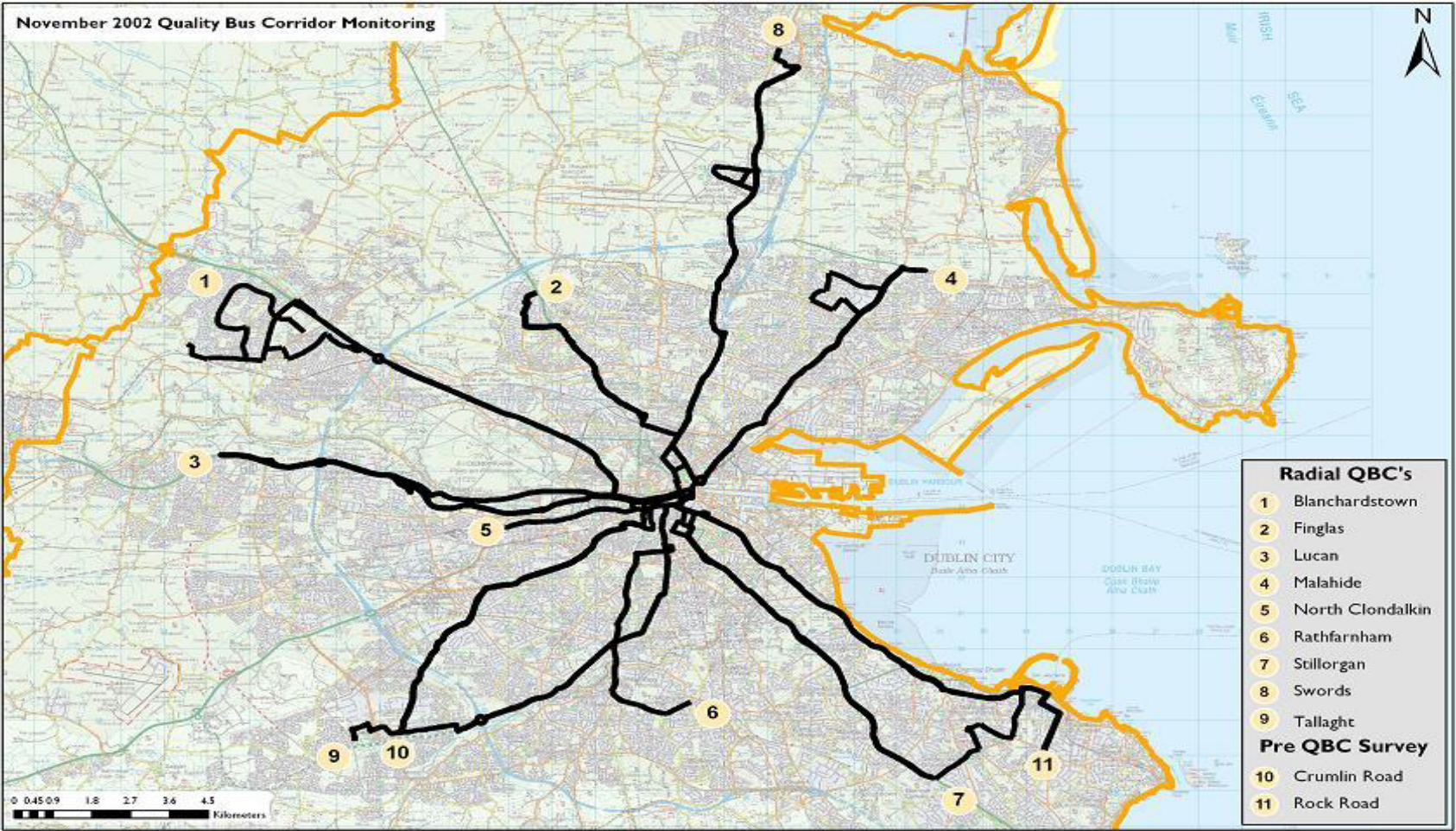
Traffic Cordon Counts were undertaken by Dublin City Council measuring the volume of citybound traffic and persons in the morning peak period with a view to reporting on modal share. This data included the counting of all bus passengers.

Data from the surveys was used to report on passenger wait times in the morning peak and off peak periods, and the age and quality of buses operating on each QBC.

An infrastructure audit including the use of GPS tracked video footage was used to report on QBC attributes including the levels of bus priority, passenger waiting facilities and passenger information.

Passenger satisfaction levels were recorded for each QBC using the data from a survey carried out by Dublin Bus in 2002.

Table A Corridors Monitored in November 2002



## 5 QBC Specification

### Specification for Quality Bus Corridors

- **Goal: to provide a clearly defined, high performance bus transportation system segregated from other road traffic.**
- 

#### A) Infrastructure Objectives

1. start on the regional or higher classification road.
2. prioritise the access from lower classification roads for the bus services entering the Quality Bus Corridor.
3. deliver bus journey speeds on the corridor of at least 20kph average over the whole corridor with a minimum increase of 25% in bus journey speeds on all QBCs.
4. operate on segregated lanes over the complete length of the corridor, except where the road width is too narrow to permit the provision of a segregated lane.
5. monitor the performance of all QBC sections with particular emphasis on non-segregated sections.
6. operate on non-segregated lengths to the highest possible performance levels by the use of sophisticated traffic management techniques
7. operate on a 12-hour basis with a specified period for loading if required.
- 7a have clearly defined bus lanes
8. have bus stops positioned to minimise total walk times for existing and potential passengers taking into account such issues security, traffic conditions, mobility impaired access
9. have high-quality waiting areas at all high usage bus stops, including shelters, level platforms that minimise the vertical and horizontal gap for boarding passengers, seating and additional facilities such as telephones, ticket vending machines and cycle parking.
10. have real-time Passenger Information at high usage bus stops  
have a network of pedestrian walkways to bus stops which are landscaped, well-lit, direct, with safe road crossings.

## **B) Service Objectives**

The bus service on a Quality Bus Corridor shall

1. provide the following profile of passenger waiting at all points on the corridor before boarding a bus

Average Wait Time (minutes)		Av. Excess Wait Time (minutes)	
Peak	Off-Peak	Peak	Off-Peak
3	4	2	2

## **C) Fleet Objectives**

1. provide bus stop annunciation over a public address system, with explanations of all deviations from regular service
2. have an average vehicle age not greater than five years, and a maximum age not greater than 8 years
3. be operated only by uniformed staff
4. be operated by low-floored vehicles
5. maintain a distinct appearance compared with other bus services
6. be operated by air conditioned buses

## **D) Network Performance**

The impact of the QBC on the route, and on the adjacent network must be assessed.

- Assess and quantify the effects of the QBC on all modes.
- Use appropriate modelling and analytical methods to assess the before and after impacts of the QBC on all modes.
  - Further measure the effectiveness of the QBC by reference to the following performance indicators:
    - passenger journey totals
    - bus occupancy levels
    - cost effectiveness
    - service reliability
    - passenger satisfaction levels
    - bus lane infringement levels
    - accident levels on QBC
    - effects on property values & businesses
    - effectiveness of accessibility for mobility impaired persons



## 6 Summary of Progress

### 6.1 Progress from 1997 to 2002

**Table 2** is a summary of the progress that has been made from November 1997 to November 2002 in respect of the reduction in the number of cars crossing the canal cordon points and the increase in bus service supply and resultant patronage.

**Table 2 Summary of Progress 1997 to 2002**

<b>QBC Monitoring 1997 - 2002</b> <b>Cars Crossing Canal Cordon by Corridor</b> <b>BAC Buses Crossing Canal Cordon by Corridor</b> <b>BAC Bus Passengers Crossing Canal by Corridor</b> <b>0700 - 1000</b>				
Corridor	Mode	Nov-97	Nov-02	% Change
Stillorgan	CARS	5794	3856	-33.45
	BUSES	40	124	210.00
	BUS PAX	1787	5759	222.27
Blanchardstown	CARS	5963	5559	-6.78
	BUSES	83	120	44.58
	BUS PAX	4573	5884	28.67
Lucan	CARS	6104	6798	11.37
	BUSES	71	100	40.85
	BUS PAX	4303	6065	40.95
Finglas / Swords	CARS	5678	4915	-13.44
	BUSES	112	158	41.07
	BUS PAX	5670	8215	44.89
North Clondalkin	CARS	1555	1328	-14.60
	BUSES	46	45	-2.17
	BUS PAX	2079	2766	33.04
Malahide	CARS	4620	2642	-42.81
	BUSES	133	147	10.53
	BUS PAX	4747	8981	89.19
Tallaght	CARS	3314	2280	-31.20
	BUSES	72	90	25.00
	BUS PAX	4098	5619	37.12
Rathfarnham	CARS	3605	2747	-23.80
	BUSES	76	53	-30.26
	BUS PAX	3285	3321	1.10
<b>Total</b>	<b>CARS</b>	<b>36633</b>	<b>30125</b>	<b>-17.77</b>
	<b>BUSES</b>	<b>633</b>	<b>837</b>	<b>32.23</b>
	<b>BUS PAX</b>	<b>30542</b>	<b>46610</b>	<b>52.61</b>

## 6.2 Progress from 2001 to 2002

**Table 3** shows the changes in the last 12 months. There has been a decrease of 7.19% in the number of cars crossing the canal cordon over the last 12 months with significant changes on some corridors. There was a small increase in the supply of buses and a 1.18% increase in passengers.

**Table 3 Summary of Progress 2001 to 2002**

QBC Monitoring 2001 - 2002 Cars Crossing Canal Cordon by Corridor BAC Buses Crossing Canal Cordon by Corridor BAC Bus Passengers Crossing Canal by Corridor 0700 - 1000				
Corridor	Mode	Nov-01	Nov-02	% Change
Stillorgan	CARS	4684	3856	-17.68
	BUSES	112	124	10.71
	BUS PAX	4784	5759	20.38
Blanchardstown	CARS	5585	5559	-0.47
	BUSES	127	120	-5.51
	BUS PAX	6244	5884	-5.77
Lucan	CARS	6968	6798	-2.44
	BUSES	97	100	3.09
	BUS PAX	5950	6065	1.93
Finglas / Swords	CARS	5054	4915	-2.75
	BUSES	133	158	18.80
	BUS PAX	8162	8215	0.65
North Clondalkin	CARS	1471	1328	-9.72
	BUSES	47	45	-4.26
	BUS PAX	2650	2766	4.38
Malahide	CARS	2921	2642	-9.55
	BUSES	159	147	-7.55
	BUS PAX	9029	8981	-0.53
Tallaght	CARS	2318	2280	-1.64
	BUSES	92	90	-2.17
	BUS PAX	5958	5619	-5.69
Rathfarnham	CARS	3458	2747	-20.56
	BUSES	55	53	-3.64
	BUS PAX	3289	3321	0.97
Total	CARS	32459	30125	-7.19
	BUSES	822	837	1.82
	BUS PAX	46066	46610	1.18

## 7 **Comparative Bus & Car Journey Times in the Morning Peak**

**Table 4** shows summary findings for comparative bus and car journey times for city bound morning peak journeys.

The table details the section of each QBC over which the comparisons are made.

Bus average journey times in the morning peak were less than the corresponding car average journey times in 8 out of the 9 QBCs monitored, with significant (greater than 30%) variations on 6 QBCs.

Table 4 Comparative Bus and Car Journey Times

QUALITY BUS CORRIDOR MONITORING NOVEMBER 2002 SUMMARY OF AM PEAK COMPARATIVE BUS AND CAR JOURNEY TIMES				
Corridor	Section Measured	Bus Average Journey Time	Car Average Journey Time	% Difference
Stillorgan	Foxrock Church to Leeson Street	<b>32:55</b>	<b>65:43</b>	<b>99.64%</b>
Finglas	Finglas to Dorset Street Lower	<b>13:48</b>	<b>23:45</b>	<b>72.10%</b>
Tallaght	West of M50 to Camden Street	<b>50:07</b>	<b>73:33</b>	<b>46.76%</b>
Swords	Cloghran Roundabout to Richmond Road	<b>29:16</b>	<b>40:42</b>	<b>39.07%</b>
North Clondalkin	Emmet Road to Cornmarket	<b>8:44</b>	<b>11:57</b>	<b>36.83%</b>
Malahide	Greencastle Road to Amiens Street	<b>27:11</b>	<b>35:35</b>	<b>30.90%</b>
Lucan	Ballyowen Road to Arran Quay via Bypass	<b>32:36</b>	<b>35:16</b>	<b>8.18%</b>
Rathfarnham	Rathfarnham Church to South Circular Road	<b>34:55</b>	<b>36:22</b>	<b>4.15%</b>
Blanchardstown	River Road to Manor Street	<b>26:22</b>	<b>23:10</b>	<b>(12.14%)</b>

## 8 Performance Indicators

### 7.1 Performance Indicators 2002 and 2003

**Table 5** shows performance indicators for 2002. Performance is measured against the QBC Specification where appropriate.

Performance for each QBC is measured in respect of the following indicators:

- i. Bus average journey times in the morning peak period inbound to the city
- ii. Bus average journey times in the afternoon/evening peak period outbound from the city
- iii. Bus average speeds in the morning peak period inbound
- iv. Bus average speeds in the afternoon/evening peak period outbound
- v. Bus passengers on designated QBC routes in the morning peak period inbound
- vi. Cars crossing the canal cordon points in the morning peak period inbound
- vii. Bus mode share in the morning peak period inbound
- viii. Bus passenger average waiting time in the morning peak period inbound
- ix. Average age of the bus fleet
- x. Percentage of low floor accessible buses

In **Table 5** the morning peak period was measured from 0700 to 1000. The afternoon peak period was measured from 1600 to 1900. Off peak performance was measured between 1200 and 1300 inbound and from 1300 to 1400 outbound.

**Table 5 Performance Indicators**

<b>QBC Performance Indicators</b>											
<b>Corridor</b>	<b>Bus Journey Times - AM Peak</b>	<b>Bus Speeds AM Peak Km/h</b>	<b>Bus Journey Times - PM Peak</b>	<b>Bus Speeds PM Peak Km/h</b>	<b>BAC Bus Pax QBC Routes</b>	<b>Cars Crossing Canal Cordon</b>	<b>Bus Mode Share</b>	<b>Ave Wait Time AM Peak</b>	<b>Ave Wait Time Off Peak</b>	<b>Fleet Age Average</b>	<b>Low Floor Buses % Fleet</b>
	<b>2002</b>	<b>2002</b>	<b>2002</b>	<b>2002</b>	<b>2002</b>	<b>2002</b>	<b>2002</b>	<b>2002</b>	<b>2002</b>	<b>2002</b>	<b>2002</b>
<b>Blanchardstown</b>	37:01	12.18	21:31	20.73	4912	5389	45.78%	1:41	4:57	2.11	75%
Position	N/A	6	N/A	2	1	2	5	2	3	1	1
<b>Finglas</b>	18:09	17.43	25:09	12.11	1832	4632	54.16%	2:56	5:10	6.49	26%
Position	N/A	2	N/A	6	9	3	3	5	5	9	5
<b>Lucan</b>	31:33	19.64	29:51	22.44	4688	6562	45.62%	2:21	5:03	4.33	19%
Position	N/A	1	N/A	1	3	1	6	4	4	5	7
<b>Malahide</b>	28:23	12.97	37:17	10.28	4796	2232	68.82%	1:46	3:28	3.19	42%
Position	N/A	5	N/A	7	2	6	1	3	1	3	3
<b>North Clondalkin</b>	19:15	11.17	33:47	7.95	1972	1270	61.04%	3:34	4:05	6.05	0%
Position	N/A	7	N/A	9	8	8	2	6	2	8	9
<b>Rathfarnham</b>	48:53	7.48	43:48	8.72	2129	2647	42.48%	6:57	12:18	4.67	25%
Position	N/A	9	N/A	8	7	5	8	9	9	6	6
<b>Stillorgan</b>	32:55	16.74	36:31	15.40	4483	3674	44.38%	1:01	5:54	2.91	51%
Position	N/A	3	N/A	3	4	4	7	1	7	2	2
<b>Swords</b>	57:11	14.86	71:30	13.14	2242	4632	54.16%	4:04	6:15	4.17	17%
Position	N/A	4	N/A	4	6	3	3	8	8	4	8
<b>Tallaght</b>	50:07	9.06	38:21	12.18	3560	2175	49.25%	2:59	5:22	5.59	38%
Position	N/A	8	N/A	5	5	7	4	6	6	7	4
<b>Totals for 9 QBCs</b>	<b>N/A</b>	<b>12.96</b>	<b>N/A</b>	<b>13.09</b>	<b>30659</b>	<b>28581</b>	<b>50.94%</b>	<b>3:02</b>	<b>5:50</b>	<b>3.95</b>	<b>38%</b>
<b>QBC Specification</b>	<b>N/A</b>	<b>17.60</b>	<b>N/A</b>	<b>17.60</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>3:00</b>	<b>4:00</b>	<b>5.00</b>	<b>100%</b>

**Notes:**

- 1 N/A = Not Applicable
- 2 QBC Specification of Bus Journey Speed of 20 kph minimum excludes boarding and alighting time at an average of 12%
- 3 Cordon Counts 0700 - 1000
- 4 Cordon Counts 0700 - 1000 Swords and Finglas QBC Crossings at Binns Bridge
- 5 Cordon Counts 0700 - 1000 Swords and Finglas QBC Crossings at Binns Bridge



## 9 Mode Share

In November of each year Dublin City Council undertakes counts at 33 locations around the cordon formed by the Royal and Grand Canals. The counts are carried out between 0700 and 1000 and measure the volume of citybound traffic by type. The results are expressed in terms of the number of vehicles with the exception of pedestrians.

At the request of the DTO the counts now include counting taxis separately and also measure car and taxi occupancy. The data from these counts, and from the bus passenger counts undertaken simultaneously by Dublin Bus, provide the information necessary to calculate mode share.

**Table 6** shows the number of people entering the city at those crossing points that are served by Quality Bus Corridors.

**Table 6a** shows the same results for the other crossing points that are served by bus.

**Table 6b** shows the same results for the remaining crossing points that have no bus services and also provides the summary position for the whole cordon.

**Table 6 QBC Cordon Points**

<b>Mode Share - November 2002</b>															
<b>Corridor</b>	<b>All Bus Pax</b>	<b>Mode Share</b>	<b>Car Persons</b>	<b>Mode Share</b>	<b>Taxi Pax</b>	<b>Mode Share</b>	<b>CV</b>	<b>Mode Share</b>	<b>M/C</b>	<b>Mode Share</b>	<b>Cycle</b>	<b>Mode Share</b>	<b>Walk</b>	<b>Mode Share</b>	<b>Totals</b>
<b>Stillorgan</b> (Car Occupancy)	6039	44.38%	4409 1.20	32.40%	113	0.83%	61	0.45%	363	2.67%	681	5.01%	1940	14.26%	<b>13606</b>
<b>Lucan</b> (Car Occupancy)	7780	45.62%	8095 1.25	47.47%	146	0.86%	482	2.83%	258	1.51%	141	0.83%	152	0.89%	<b>17054</b>
<b>Blanchardstown</b> (Car Occupancy)	7312	45.78%	6600 1.27	41.32%	105	0.66%	167	1.05%	222	1.39%	274	1.72%	1291	8.08%	<b>15971</b>
<b>Malahide</b> (Car Occupancy)	9510	68.82%	2790 1.25	20.19%	254	1.84%	68	0.49%	238	1.72%	348	2.52%	611	4.42%	<b>13819</b>
<b>Tallaght</b> (Car Occupancy)	5781	49.25%	2871 1.32	24.46%	65	0.55%	26	0.22%	200	1.70%	541	4.61%	2255	19.21%	<b>11739</b>
<b>Swords/Finglas</b> (Car Occupancy)	9184	54.16%	5744 1.24	33.87%	175	1.03%	235	1.39%	237	1.40%	334	1.97%	1049	6.19%	<b>16958</b>
<b>Rathfarnham</b> (Car Occupancy)	3338	42.48%	3044 1.15	38.74%	62	0.79%	51	0.65%	232	2.95%	399	5.08%	732	9.32%	<b>7858</b>
<b>North Clondalkin</b> (Car Occupancy)	2856	61.04%	1511 1.19	32.29%	36	0.77%	64	1.37%	68	1.45%	33	0.71%	111	2.37%	<b>4679</b>
<b>QBC Totals</b>	<b>51800</b>	<b>50.94%</b>	<b>35064</b> 1.24	<b>34.48%</b>	<b>956</b>	<b>0.94%</b>	<b>1154</b>	<b>1.13%</b>	<b>1818</b>	<b>1.79%</b>	<b>2751</b>	<b>2.71%</b>	<b>8141</b>	<b>8.01%</b>	<b>101684</b>

Table 6a Non QBC Cordon Points

Mode Share - November 2002															
Cordon Point	All Bus Pax	Mode Share	Car Persons	Mode Share	Taxi Pax	Mode Share	CV	Mode Share	M/C	Mode Share	Cycle	Mode Share	Walk	Mode Share	Totals
Dolphins Barn	4243	58.44%	2377 1.22	32.74%	44	0.61%	150	2.07%	84	1.16%	74	1.02%	289	3.98%	7261
Phibsborough Rd	1795	25.92%	3756 1.26	54.24%	87	1.26%	110	1.59%	136	1.96%	163	2.35%	878	12.68%	6925
Charlemount	1768	32.77%	1853 1.20	34.35%	45	0.83%	26	0.48%	91	1.69%	261	4.84%	1351	25.04%	5395
Mount Street	1100	26.62%	2350 1.18	56.87%	33	0.80%	27	0.65%	47	1.14%	96	2.32%	479	11.59%	4132
South Circular Rd	1172	28.99%	2393 1.15	59.19%	27	0.67%	46	1.14%	45	1.11%	88	2.18%	272	6.73%	4043
Charleville Road	1010	47.75%	892 1.26	42.17%	14	0.66%	10	0.47%	17	0.80%	39	1.84%	133	6.29%	2115
Baggot Street	925	18.18%	2673 1.16	52.53%	71	1.40%	31	0.61%	82	1.61%	180	3.54%	1127	22.15%	5089
Ballybough Rd	886	13.71%	4783 1.17	74.01%	27	0.42%	66	1.02%	79	1.22%	149	2.31%	473	7.32%	6463
Barrow Street	533	12.28%	3110 1.57	71.66%	42	0.97%	128	2.95%	54	1.24%	108	2.49%	365	8.41%	4340
Clogher Road	251	7.03%	2828 1.22	79.26%	27	0.76%	45	1.26%	44	1.23%	128	3.59%	245	6.87%	3588
<b>Non QBC Totals</b>	<b>13683</b>	<b>27.74%</b>	<b>27015</b> 1.23	<b>54.76%</b>	<b>417</b>	<b>0.85%</b>	<b>639</b>	<b>1.30%</b>	<b>679</b>	<b>1.38%</b>	<b>1286</b>	<b>2.61%</b>	<b>5612</b>	<b>11.38%</b>	<b>49331</b>
<b>QBC Totals</b>	<b>51800</b>	<b>50.94%</b>	<b>35064</b> 1.24	<b>34.48%</b>	<b>956</b>	<b>0.94%</b>	<b>1154</b>	<b>1.13%</b>	<b>1818</b>	<b>1.79%</b>	<b>2751</b>	<b>2.71%</b>	<b>8141</b>	<b>8.01%</b>	<b>101684</b>
<b>All Bus Crossings</b>	<b>65483</b>	<b>43.36%</b>	<b>62079</b> 1.23	<b>41.11%</b>	<b>1373</b>	<b>0.91%</b>	<b>1793</b>	<b>1.19%</b>	<b>2497</b>	<b>1.65%</b>	<b>4037</b>	<b>2.67%</b>	<b>13753</b>	<b>9.11%</b>	<b>151015</b>

Table 6b Non Bus Cordon Points & Cordon Totals

Mode Share - November 2002															
Cordon Point	All Bus Pax	Mode Share	Car Persons	Mode Share	Taxi Pax	Mode Share	CV	Mode Share	M/C	Mode Share	Cycle	Mode Share	Walk	Mode Share	Totals
<b>Grand Canal St</b> (Car Occupancy)	0	0%	2147	62.98%	46	1.35%	34	1.00%	54	1.58%	78	2.29%	1050	30.80%	<b>3409</b>
<b>Huband Bridge</b> (Car Occupancy)	0	0%	393	44.46%	13	1.47%	5	0.57%	29	3.28%	101	11.43%	343	38.80%	<b>884</b>
<b>Herberton Bridge</b> (Car Occupancy)	0	0%	2996	84.68%	50	1.41%	80	2.26%	63	1.78%	122	3.45%	227	6.42%	<b>3538</b>
<b>Kilmainham Lane</b> (Car Occupancy)	0	0%	211	72.76%	4	1.38%	2	0.69%	5	1.72%	19	6.55%	49	16.90%	<b>290</b>
<b>Phoenix Park Main</b> (Car Occupancy)	0	0%	2140	90.49%	12	0.51%	6	0.25%	92	3.89%	77	3.26%	38	1.61%	<b>2365</b>
<b>Phoenix Park Back</b> (Car Occupancy)	0	0%	1543	91.41%	6	0.36%	7	0.41%	16	0.95%	26	1.54%	90	5.33%	<b>1688</b>
<b>Annamore Road</b> (Car Occupancy)	0	0%	727	76.61%	18	1.90%	16	1.69%	22	2.32%	38	4.00%	128	13.49%	<b>949</b>
<b>Royal Canal Bank</b> (Car Occupancy)	0	0%	265	51.86%	8	1.57%	1	0.20%	26	5.09%	41	8.02%	170	33.27%	<b>511</b>
<b>Russell Street</b> (Car Occupancy)	0	0%	1465	79.49%	7	0.38%	42	2.28%	27	1.47%	54	2.93%	248	13.46%	<b>1843</b>
<b>Ossory Road</b> (Car Occupancy)	0	0%	186	43.87%	8	1.89%	8	1.89%	7	1.65%	11	2.59%	204	48.11%	<b>424</b>
<b>Sheriff St Lower</b> (Car Occupancy)	0	0%	1516	83.34%	23	1.26%	125	6.87%	26	1.43%	20	1.10%	109	5.99%	<b>1819</b>
<b>North Wall Quay</b> (Car Occupancy)	0	0%	434	31.22%	7	0.50%	670	48.20%	34	2.45%	51	3.67%	194	13.96%	<b>1390</b>
<b>East Road</b> (Car Occupancy)	0	0%	2430	86.20%	14	0.50%	192	6.81%	23	0.82%	41	1.45%	119	4.22%	<b>2819</b>
<b>East Wall Road</b> (Car Occupancy)	0	0%	1332	64.07%	22	1.06%	521	25.06%	61	2.93%	98	4.71%	45	2.16%	<b>2079</b>
<b>Ringsend Road</b> (Car Occupancy)	0	0%	2193	83.45%	16	0.61%	183	6.96%	88	3.35%	86	3.27%	62	2.36%	<b>2628</b>
<b>Non Bus Totals</b> (Car Occupancy)	<b>0</b>	<b>0%</b>	<b>19978</b>	<b>75.00%</b>	<b>254</b>	<b>0.95%</b>	<b>1892</b>	<b>7.10%</b>	<b>573</b>	<b>2.15%</b>	<b>863</b>	<b>3.24%</b>	<b>3076</b>	<b>11.55%</b>	<b>26636</b>
<b>Non QBC Totals</b> (Car Occupancy)	<b>13683</b>	<b>27.74%</b>	<b>27015</b>	<b>54.76%</b>	<b>417</b>	<b>0.85%</b>	<b>639</b>	<b>1.30%</b>	<b>679</b>	<b>1.38%</b>	<b>1286</b>	<b>2.61%</b>	<b>5612</b>	<b>11.38%</b>	<b>49331</b>
<b>QBC Totals</b> (Car Occupancy)	<b>51800</b>	<b>50.94%</b>	<b>35064</b>	<b>34.48%</b>	<b>956</b>	<b>0.94%</b>	<b>1154</b>	<b>1.13%</b>	<b>1818</b>	<b>1.79%</b>	<b>2751</b>	<b>2.71%</b>	<b>8141</b>	<b>8.01%</b>	<b>101684</b>
<b>All Bus Crossings</b> (Car Occupancy)	<b>65483</b>	<b>43.36%</b>	<b>62079</b>	<b>41.11%</b>	<b>1373</b>	<b>0.91%</b>	<b>1793</b>	<b>1.19%</b>	<b>2497</b>	<b>1.65%</b>	<b>4037</b>	<b>2.67%</b>	<b>13753</b>	<b>9.11%</b>	<b>151015</b>
<b>All Crossings</b> (Car Occupancy)	<b>65483</b>	<b>36.86%</b>	<b>82057</b>	<b>46.19%</b>	<b>1627</b>	<b>0.92%</b>	<b>3685</b>	<b>2.07%</b>	<b>3070</b>	<b>1.73%</b>	<b>4900</b>	<b>2.76%</b>	<b>16829</b>	<b>9.47%</b>	<b>177651</b>

## 10 Final Reports

Comprehensive reports for the performance of each QBC have been prepared.

An example relating to the performance of Stillorgan QBC is presented in this section. (Table 7)

Reports for all QBCs can be obtained from Michael Warnock-Smith of Dublin Transportation Office at the following e-mail address: [michaelw@dto.ie](mailto:michaelw@dto.ie).

Each report gives detailed information on the performance indicators as follows:

- Bus journey times in the morning peak, off peak and afternoon/evening peak periods
- Bus speeds
- Comparative bus and car journey times for all time periods
- QBC infrastructure attributes including the level and operational hours of bus priority, the location of pedestrian crossing facilities relative to bus stops and the provision and quality of passenger waiting facilities and information
- Passenger waiting times
- Mode share comparing 2002 with 2001 and 2002 with performance prior to the implementation of bus priority measures
- Quality of the bus fleet including the provision of low floor accessible buses
- Passenger journeys
- Bus occupancy levels
- Passenger satisfaction levels

The codes in the left hand column named “Spec Ref” match the performance indicators set out in the QBC Specification.

**Table 7 Stillorgan QBC Final Report**

QUALITY BUS CORRIDOR MONITORING ANNUAL REPORT STILLORGAN NOVEMBER 2002				
A	INFRASTRUCTURE OBJECTIVES	PERFORMANCE INDICATORS		NOTES
1	QBC starts on regional or higher classification road	Start Point	End Point	
		<b>Foxrock Church</b>	<b>Leeson Street</b>	
2	Bus services to have priority access to QBC from lower classification roads	No. of signalised jcts	% prioritised	
		<b>9</b>	<b>0%</b>	
3	Bus journey speeds to be 20kph minimum	Average journey speeds		Foxrock Church to Leeson Street
	Foxrock Church to Leeson Street	AM Peak Inbound		
		<b>16.74 km/h</b>		
	Foxrock Church to Leeson Street	Off Peak Inbound		
<b>21.61 km/h</b>				
Leeson Street to Foxrock Church	PM Peak Outbound		Leeson Street to Foxrock Church	
	<b>15.40 km/h</b>			
3a	Bus journey speeds to increase by 25% pre and post QBC implementation	Pre QBC average journey speeds		Dublin City Council November 1998
	Foxrock Church to Fleet Street	AM Peak Inbound	Off Peak Inbound	Foxrock Church to Fleet Street
		<b>16.17 km/h</b>	<b>N/A</b>	
		PM Peak Outbound		
		% increase		Comparison not applicable as 1998 data excludes boarding & alighting time
		AM Peak	Off peak	
		<b>N/A</b>	<b>N/A</b>	
PM Peak				
	<b>N/A</b>			

**QUALITY BUS CORRIDOR MONITORING BI-ANNUAL REPORT  
STILLORGAN  
NOVEMBER 2002**

A	INFRASTRUCTURE OBJECTIVES		PERFORMANCE INDICATORS				NOTES
4	Corridor to have segregated bus lanes where physically feasible		% Segregated		% Non Segregated		Foxrock Church to Fleet Street Inbound
			Inbound	Outbound	Inbound	Outbound	
			<b>79%</b>	<b>73%</b>	<b>21%</b>	<b>27%</b>	
5	Bus Journey Times (Average)	AM Peak Inbound	<b>AM Peak</b>				
	<b>Foxrock Church to Leeson Street</b>		<b>32:55</b>				<b>Foxrock Church to Leeson Street</b>
5	Bus Journey Times (Average)	Off Peak Inbound	<b>Off Peak</b>				
	<b>Foxrock Church to Leeson Street</b>		<b>25:50</b>				<b>Foxrock Church to Leeson Street</b>
5	Bus Journey Times (Average)	PM Peak Outbound	<b>PM Peak</b>				
	<b>Leeson Street to Foxrock Church</b>		<b>36:31</b>				<b>Leeson Street to Foxrock Church</b>
5	Comparable Bus v Car Journey Times (Average)	AM Peak Inbound	<b>Bus</b>	<b>Car</b>			
	<b>Foxrock Church to Leeson Street</b>		AM Peak	AM Peak		<b>Foxrock Church to Leeson Street</b>	
			<b>32:55</b>	<b>65:43</b>			
5	Comparable Bus v Car Journey Times (Average)	Off Peak Inbound	<b>Bus</b>	<b>Car</b>			
	<b>Foxrock Church to Leeson Street</b>		Off Peak	Off Peak		<b>Foxrock Church to Leeson Street</b>	
			<b>25:50</b>	<b>18:13</b>			
5	Comparable Bus v Car Journey Times (Average)	PM Peak Outbound	<b>Bus</b>	<b>Car</b>			
	<b>Leeson Street to Foxrock Church</b>		PM Peak	PM Peak		<b>Leeson Street to Foxrock Church</b>	
			<b>36:31</b>	<b>50:26</b>			

QUALITY BUS CORRIDOR MONITORING BI-ANNUAL REPORT STILLORGAN NOVEMBER 2002							
A	INFRASTRUCTURE OBJECTIVES		PERFORMANCE INDICATORS				NOTES
5	Bus Sectional Journey Times (Range)	AM Peak	AM Peak				Foxrock Church to Leeson Street
			Low	High			
	Foxrock Church to Leeson Street		<b>24:50</b>	<b>38:51</b>			
5	Bus Sectional Journey Times (Range)	Off Peak	Off Peak				Foxrock Church to Leeson Street
			Low	High			
	Foxrock Church to Leeson Street		<b>22:20</b>	<b>29:57</b>			
5	Bus Sectional Journey Times (Range)	PM Peak	PM Peak				Leeson Street to Foxrock Church
			Low	High			
	Leeson Street to Foxrock Church		<b>31:48</b>	<b>42:13</b>			
5	Comparable Bus v Car Journey Times (Range)	AM Peak	Bus		Car		Foxrock Church to Leeson Street
			AM Peak		AM Peak		
			Low	High	Low	High	
	Foxrock Church to Leeson Street		<b>24:50</b>	<b>38:51</b>	<b>58:22</b>	<b>70:41</b>	
5	Comparable Bus v Car Journey Times (Range)	Off Peak	Bus		Car		Foxrock Church to Leeson Street
			Off Peak		Off Peak		
			Low	High	Low	High	
	Foxrock Church to Leeson Street		<b>22:20</b>	<b>29:57</b>	<b>14:36</b>	<b>23:48</b>	



QUALITY BUS CORRIDOR MONITORING BI-ANNUAL REPORT STILLORGAN NOVEMBER 2002							
A	INFRASTRUCTURE OBJECTIVES		PERFORMANCE INDICATORS				NOTES
5	Comparable Bus v Car Journey Times (Range)	PM Peak	Bus		Car		
			PM Peak		PM Peak		
			Low	High	Low	High	
	Leeson Street to Foxrock Church		<b>31:48</b>	<b>42:13</b>	<b>33:07</b>	<b>63:44</b>	Leeson Street to Foxrock Church
6	Traffic Management Measures to support QBC		No. of Signalised Jcts		% Prioritised		
			<b>31</b>	Inbound	<b>0%</b>		
			<b>31</b>	Outbound			
7	Bus Lanes to operate for 12 hours (0700 to 1900)		% Peak Hours only		% 12 hour		
			<b>0%</b>		<b>93%</b>		
			% 24 hour		% 7-10 & 12-19		
			<b>0%</b>		<b>7%</b>		
7a	Bus Lanes to be clearly defined		% surface marked		% signed		
			<b>98%</b>		<b>100%</b>		
8	Bus stops to be located to minimise walk times		Average distance to Ped X		Maximum distance to Ped X		
			<b>101m</b>		<b>342m</b>		

**QUALITY BUS CORRIDOR MONITORING BI-ANNUAL REPORT  
STILLORGAN  
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A	INFRASTRUCTURE OBJECTIVES	PERFORMANCE INDICATORS		NOTES
9	High quality waiting areas at all high usage stops to include shelters, level platforms, seating, and additional facilities eg cycle parking, telephones & ticket vending m/c's	Total Number of bus shelters		Total Number of bus stops
		<b>40</b>		<b>67</b>
		% with lighting	% with seating	% bus shelters
		<b>95%</b>	<b>90%</b>	
		% with telephones	% with ticket vending	
		<b>5%</b>	<b>0%</b>	
		% with cycle parking	Range of cycle spaces	
		<b>20%</b>	<b>3 to 9</b>	
% level platforms	% fully accessible			
<b>10%</b>	<b>10%</b>			
10	Passenger Information	% shelters with RTPi	% working	% bus shelters
10a	Real Time Passenger Information at high usage stops	<b>0%</b>	<b>N/A</b>	
10b	Fixed Information at bus stops eg route & network maps & timetables	% timetables	% route maps	% bus stops
		<b>88%</b>	<b>0%</b>	
		% network maps	% fares information	
<b>0%</b>	<b>85%</b>			

QUALITY BUS CORRIDOR MONITORING BI-ANNUAL REPORT STILLORGAN NOVEMBER 2002				
B	SERVICE OBJECTIVES	PERFORMANCE INDICATORS		NOTES
1	Passenger Wait Times	Target	Actual	
		<b>3 minutes</b>	<b>1.01</b>	
1a	Average Peak Wait Time	Target	Actual	
		<b>2 minutes</b>	<b>0</b>	
1b	Average Peak Excess Wait Time	Target	Actual	
		<b>4 minutes</b>	<b>5.54</b>	
1c	Average Off Peak Wait Time	Target	Actual	
		<b>2 minutes</b>	<b>1.54</b>	
1d	Average Off Peak Excess Wait Time	Target	Actual	
		<b>2 minutes</b>	<b>1.54</b>	
2	Boarding & Alighting time / % of total journey time	AM Peak	Off peak	Off Peak survey not undertaken
		<b>18.86%</b>	<b>N/K</b>	
C	FLEET OBJECTIVES	PERFORMANCE INDICATORS		NOTES
2	Average Fleet age	Average Fleet age		
		<b>2.91</b>		
2a	Maximum Fleet age	Maximum Fleet age		
		<b>10</b>		
3	QBC to be operated by uniformed staff	% staff uniformed		
		<b>100%</b>		
4	QBC to be operated by low floor buses	% of low floor buses		
		<b>51%</b>		

QUALITY BUS CORRIDOR MONITORING BI-ANNUAL REPORT STILLORGAN NOVEMBER 2002			
C	FLEET OBJECTIVES	PERFORMANCE INDICATORS	NOTES
5	QBC to be operated by branded vehicles	% of branded vehicles	City Swift
		<b>56%</b>	

D	NETWORK PERFORMANCE	PERFORMANCE INDICATORS				NOTES
1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	% Mode share				November 2002 Cordon Count includes all bus passengers
		Car		Bus		
		Nov-01	Nov-02	Nov-01	Nov-02	November 2001 Cordon Count includes Dublin Bus passengers only
		<b>40.53%</b>	<b>32.40%</b>	<b>34.49%</b>	<b>44.39%</b>	
		Taxi		Cycle		Car Occupancy 1.20 from DCC Survey November 2001
		Nov-01	Nov-02	Nov-01	Nov-02	
		<b>N/A</b>	<b>0.83%</b>	<b>4.35%</b>	<b>5.00%</b>	
		Walking		Total Persons		
		Nov-01	Nov-02	Nov-01	Nov-02	
<b>18.43%</b>	<b>14.26%</b>	<b>13870</b>	<b>13606</b>			

QUALITY BUS CORRIDOR MONITORING BI-ANNUAL REPORT STILLORGAN NOVEMBER 2002						
D	NETWORK PERFORMANCE	PERFORMANCE INDICATORS				NOTES
2	Assess the before & after impact of QBC on all Modes (Pre & Post QBC Analysis)	% Mode share				November 2002 Cordon Count includes all bus passengers Pre QBC November 1998 Cordon Count includes Dublin Bus passengers only Car Occupancy 1.20 from DCC Survey November 2001
		Car		Bus		
		Pre QBC	Post QBC	Pre QBC	Post QBC	
		<b>54.36%</b>	<b>32.40%</b>	<b>23.78%</b>	<b>44.39%</b>	
		Taxi		Cycle		
		Pre QBC	Post QBC	Pre QBC	Post QBC	
		<b>N/A</b>	<b>0.83%</b>	<b>3.60%</b>	<b>5.00%</b>	
		Walking		Total Persons		
Pre QBC	Post QBC	Pre QBC	Post QBC			
<b>16.40%</b>	<b>14.26%</b>	<b>10174</b>	<b>13606</b>			
E	ADDITIONAL OBJECTIVES	PERFORMANCE INDICATORS				NOTES
1	Passenger Journeys (Total)	Nov-01		Nov-02		Monday to Friday 0700 - 0915
		<b>30360</b>		<b>39092</b>		
2	Bus Occupancy Levels (Average)	Peak		Off Peak		Survey at Fosters Avenue / N11
		<b>78</b>		<b>36</b>		
5	Passenger Satisfaction Levels	% Satisfaction				Dublin Bus Survey November 2002
		Reliability		Quality of Service		
		<b>88%</b>		<b>92%</b>		
		Quality of Information		Value for Money		
<b>N/A</b>		<b>86%</b>				
9	Mobility Impaired Access % Full Accessibility	% buses		% bus stops		
		<b>N/A</b>		<b>6%</b>		
		% ped x				
<b>100%</b>						

## 11 Sectional Bus and Car Journey Times

Comparative bus and car journey times were calculated for all sections of all QBCs where sufficient robust data was available. Sections where comparisons were either unable to be made or where not appropriate are marked as “N/A”.

Each QBC is split into sections with survey points located at strategic points of each corridor. In particular, survey points are located at the start and end of sections where bus priority has been provided with a view to measuring the effectiveness of the infrastructure on those sections.

**Tables 8a to 8i** inclusive show the results for the 9 main radial QBCs.

The tables show both the average and the range of bus and car journey times for the morning peak, off peak and afternoon/evening peak periods. Where car journey times exceed bus journey times the results are highlighted in yellow.

These tables should be looked at in conjunction with the bus speed tables which give details of the length of each section and the length of bus priority. **Tables 9a to 9i.**

Table 8a Blanchardstown QBC

Blanchardstown QBC Roadside Survey Results - November 2002									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Clonsilla to Blanchardstown Rd Sth	Average	27:51	N/A	17:05	N/A	20:04	N/A	19:32	N/A
	Range	23:56 to 30:57	N/A	16:08 to 18:17	N/A	15:04 to 25:37	N/A	19:32	N/A
Blakestown Way to Rear of Shopping C'tre (Peak)	Average	2:36	N/A	2:30	N/A	N/A	N/A	N/A	N/A
	Range	2:02 to 3:08	N/A	2:18 to 2:41	N/A	N/A	N/A	N/A	N/A
Coolmine Road to Blakestown Way	Average	N/A	N/A	13:37	N/A	N/A	N/A	17:19	N/A
	Range	N/A	N/A	10:34 to 20:36	N/A	N/A	N/A	14:39 to 21:21	N/A
Blanchardstown Road South to Coolmine Rd	Average	5:38	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Range	3:56 to 8:28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rear of Shopping Centre to River Rd R'bt (Peak)	Average	3:52	8:11	2:11	1:30	N/A	N/A	N/A	N/A
	Range	2:33 to 5:25	4:02 to 11:35	2:11	1:03 to 1:57	N/A	N/A	N/A	N/A
Coolmine Road to River Road Rbt	Average	10:40	N/A	9:09	N/A	N/A	N/A	6:42	N/A
	Range	8:29 to 12:47	N/A	7:46 to 12:47	N/A	N/A	N/A	5:50 to 7:17	N/A
River Road Rbt to New River Road	Average	2:38	2:40	3:07	4:26	2:13	2:07	3:05	2:38
	Range	2:05 to 3:02	1:34 to 3:14	1:50 to 5:15	1:36 to 10:18	2:09 to 2:17	1:41 to 2:37	2:21 to 4:05	1:42 to 3:38
New River Road to Ashtown Roundabout	Average	2:38	3:12	1:30	1:28	2:21	1:41	1:20	0:58
	Range	1:49 to 3:56	1:49 to 4:28	1:10 to 1:46	1:10 to 2:26	1:51 to 2:35	1:23 to 1:58	1:05 to 1:37	0:53 to 1:03
Ashtown Roundabout to Ratoath Road	Average	7:23	8:25	8:13	6:19	5:14	3:35	7:53	6:41
	Range	5:06 to 9:15	4:56 to 12:56	5:04 to 11:59	4:19 to 7:37	3:34 to 6:37	3:12 to 4:13	6:45 to 9:07	5:03 to 7:54
Ratoath Road to Manor Street	Average	13:03	13:13	4:33	4:36	4:50	3:36	4:38	3:48
	Range	7:24 to 16:12	7:59 to 19:11	3:12 to 7:20	2:58 to 6:58	4:18 to 5:49	2:46 to 4:50	3:31 to 6:20	3:17 to 4:45

Table 8a Blanchardstown QBC (continued)

Blanchardstown QBC Roadside Survey Results - November 2002									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
<b>Manor Street to Capel Street</b>	<b>Average Range</b>	10:44 7:06 to 16:04	N/A N/A	N/A N/A	N/A N/A	14:24 14:24	N/A N/A	N/A N/A	N/A N/A
<b>Watling Street to Manor Street</b>	<b>Average Range</b>	N/A N/A	N/A N/A	5:28 3:40 to 7:57	N/A N/A	N/A N/A	N/A N/A	4:38 4:38	N/A N/A
<b>Capel Street to Tara Street</b>	<b>Average Range</b>	11:31 11:04 to 11:57	N/A N/A	N/A N/A	N/A N/A	10:44 9:33 to 12:39	N/A N/A	N/A N/A	N/A N/A
<b>Hawkins Street to Watling Street</b>	<b>Average Range</b>	N/A N/A	N/A N/A	16:54 13:07 to 22:54	N/A N/A	N/A N/A	N/A N/A	13:23 12:53 to 14:02	N/A N/A



Table 8b Finglas QBC

Finglas QBC Roadside Survey Results - November 2002									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Plunkett Avenue to Finglas	Average	12:00	N/A	N/A	N/A	11:04	N/A	9:44	N/A
	Range	8:50 to 16:22	N/A	N/A	N/A	8:34 to 14:20	N/A	7:18 to 12:13	N/A
Finglas to Prospect Road/Whitworth Rd	Average	10:04	20:40	7:19	6:33	8:13	8:29	6:36	6:56
	Range	9:00 to 13:04	18:34 to 23:47	6:30 to 8:25	4:44 to 8:49	7:04 to 9:26	5:27 to 12:57	4:44 to 9:04	5:37 to 10:04
Whitworth Rd to Dorset St Lower	Average	3:44	3:06	8:44	9:56	3:26	4:26	3:45	3:07
	Range	2:56 to 5:21	2:20 to 4:15	6:27 to 12:36	7:21 to 13:13	2:15 to 3:56	2:32 to 9:06	2:59 to 4:20	2:31 to 4:09
Dorset St Lower to Parnell Square East	Average	4:41	N/A	N/A	N/A	5:07	N/A	N/A	N/A
	Range	3:06 to 6:05	N/A	N/A	N/A	4:10 to 6:55	N/A	N/A	N/A
Parnell Street to Whitworth Road	Average	N/A	N/A	9:06	N/A	N/A	N/A	7:04	N/A
	Range	N/A	N/A	4:27 to 11:26	N/A	N/A	N/A	4:59 to 9:34	N/A

Table 8c Lucan QBC

Lucan QBC Roadside Survey Results - November 2002									
Sectional Results - Journey Times									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Foxhunter to West of M50	Average Range	4:42 3:24 to 6:17	10:21 8:58 to 12:36	3:18 1:39 to 4:49	2:03 1:35 to 2:32	2:01 1:46 to 2:31	1:52 1:25 to 2:17	2:29 1:27 to 3:24	1:47 1:14 to 2:51
West of M50 to Palmerston	Average Range	3:20 2:03 to 3:57	3:29 2:27 to 5:58	3:33 2:05 to 5:52	3:29 1:18 to 6:00	2:40 2:17 to 4:01	2:23 2:07 to 2:48	2:07 1:26 to 2:49	1:22 1:00 to 1:36
Palmerston to Chapelizod Slip Rd	Average Range	1:33 0:42 to 2:49	0:46 0:16 to 1:33	2:33 1:11 to 3:58	2:51 2:04 to 3:38	1:18 0:49 to 2:08	0:50 0:16 to 1:32	2:14 0:55 to 5:25	2:02 1:32 to 2:18
Chapelizod Slip Rd to Conyngham Road	Average Range	13:36 9:06 to 17:14	10:29 6:32 to 18:29	11:11 9:10 to 14:03	11:18 9:06 to 12:37	8:02 6:30 to 9:24	6:48 5:41 to 8:44	8:48 7:17 to 10:13	6:36 5:28 to 7:48
Chapelizod Slip Rd to Con Colbert Rd (Exp)	Average Range	4:53 4:01 to 6:46	4:04 3:11 to 7:16	6:13 4:30 to 9:44	9:46 6:22 to 15:32	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Conyngham Road to Parkgate Street	Average Range	3:59 2:05 to 8:12	7:41 4:50 to 10:33	N/A N/A	N/A N/A	2:48 1:53 to 4:30	1:40 1:11 to 2:15	N/A N/A	N/A N/A
Con Colbert Road to Ellis Quay (Exp)	Average Range	11:12 5:35 to 15:15	10:54 6:45 to 16:59	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Parkgate Street to Ellis Quay	Average Range	4:25 2:13 to 7:08	7:15 4:17 to 11:32	N/A N/A	N/A N/A	2:00 1:34 to 2:43	2:58 0:54 to 4:31	N/A N/A	N/A N/A
Ellis Quay to Arran Quay	Average Range	5:05 3:35 to 7:29	4:26 3:03 to 6:05	N/A N/A	N/A N/A	4:33 3:36 to 5:35	4:20 2:34 to 7:13	N/A N/A	N/A N/A
Wellington Quay to Merchants Quay	Average Range	N/A N/A	N/A N/A	10:37 5:27 to 17:51	N/A N/A	N/A N/A	N/A N/A	7:17 4:06 to 10:29	4:55 4:05 to 6:27

Table 8c Lucan QBC (continued)

Lucan QBC Roadside Survey Results - November 2002									
Sectional Results - Journey Times									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Merchants Quay to Con Colbert Road (Exp)	Average Range	N/A	N/A	5:45	6:04	N/A	N/A	N/A	N/A
		N/A	N/A	5:40 to 5:50	3:59 to 8:42	N/A	N/A	N/A	N/A
Merchants Quay to Conyngham Road	Average Range	N/A	N/A	4:09	2:24	N/A	N/A	3:50	2:34
		N/A	N/A	2:09 to 6:54	1:46 to 3:02	N/A	N/A	3:16 to 4:54	2:03 to 3:05

Code:

Exp - Espresso Services

Table 8d Malahide QBC

Malahide QBC Roadside Survey Results - November 2002									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Clare Hall to Priorswood Road	Average Range	3:18 2:07 to 5:06	N/A N/A	3:56 2:09 to 6:18	N/A N/A	2:05 1:30 to 2:27	N/A N/A	1:54 1:32 to 2:07	N/A N/A
Priorswood Rd to Greencastle Rd (Direct)	Average Range	1:10 0:43 to 1:36	0:45 0:21 to 1:54	3:07 2:01 to 5:00	2:12 1:30 to 2:48	N/A N/A	2:58 1:47 to 3:51	2:48 2:32 to 3:15	1:49 1:14 to 2:26
Greencastle Road to Kilmore Road	Average Range	6:38 4:18 to 9:57	N/A N/A	4:24 2:49 to 5:38	N/A N/A	4:31 3:58 to 4:59	N/A N/A	4:32 2:57 to 5:55	N/A N/A
Greencastle Road to St Davids Wood	Average Range	8:44 5:49 to 12:53	7:43 6:02 to 10:00	N/A N/A	N/A N/A	5:12 4:20 to 5:38	N/A N/A	N/A N/A	N/A N/A
Greencastle Road to Collins Avenue	Average Range	12:25 7:57 to 16:12	N/A N/A	8:35 6:19 to 10:21	9:33 7:35 to 13:10	6:39 5:27 to 7:56	N/A N/A	7:18 6:00 to 8:13	5:56 4:01 to 6:55
Kilmore Road to St Davids Wood	Average Range	1:58 0:27 to 4:25	N/A N/A	N/A N/A	N/A N/A	0:57 0:22 to 1:22	N/A N/A	N/A N/A	N/A N/A
Kilmore Road to Collins Avenue	Average Range	5:41 3:40 to 7:32	N/A N/A	3:52 2:40 to 5:50	N/A N/A	2:17 1:29 to 3:21	N/A N/A	2:46 1:55 to 3:13	N/A N/A
St Davids Wood to Collins Avenue	Average Range	3:48 2:16 to 6:37	8:27 5:09 to 12:41	N/A N/A	N/A N/A	1:28 1:07 to 2:22	1:21 0:53 to 1:42	N/A N/A	N/A N/A
Collins Avenue to Casino Park/Griffith Ave	Average Range	3:09 1:09 to 4:58	3:27 2:10 to 4:49	3:03 1:45 to 4:00	4:19 2:28 to 7:03	0:58 0:32 to 1:46	0:37 0:31 to 0:46	2:21 2:15 to 2:27	1:51 1:28 to 2:34
Griffith Avenue/Casino Park to Amiens Street	Average Range	10:07 6:57 to 12:31	18:15 14:45 to 21:57	7:02 6:46 to 7:16	N/A N/A	7:21 5:36 to 9:16	6:48 5:03 to 8:06	6:14 4:33 to 7:26	N/A N/A
Casino Park/Griffith Avenue to Talbot Street	Average Range	13:10 10:01 to 16:26	N/A N/A	25:03 14:01 to 32:19	N/A N/A	10:24 8:49 to 12:41	N/A N/A	14:55 14:55	N/A N/A
Amiens Street to Talbot Street	Average Range	2:57 1:50 to 4:37	N/A N/A	N/A N/A	N/A N/A	3:36 2:17 to 6:16	N/A N/A	7:29 7:29	N/A N/A

Table 8e North Clondalkin QBC

North Clondalkin QBC Roadside Survey Results - November 2002									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
<b>Emmet Rd to Mount Brown / James St</b>	<b>Average Range</b>	3:18 2:38 to 4:07	2:33 1:52 to 3:44	21:20 10:13 to 35:32	19:29 8:24 to 34:49	2:36 2:02 to 3:17	2:36 1:42 to 3:27	6:47 4:42 to 8:32	4:30 3:34 to 5:26
<b>Mount Brown / James St to Cornmarket</b>	<b>Average Range</b>	5:59 4:15 to 7:22	11:01 4:23 to 15:57	4:07 1:46 to 6:34	6:07 2:55 to 9:11	6:20 4:54 to 7:57	10:28 8:28 to 12:06	7:12 5:41 to 8:20	6:07 5:34 to 7:24
<b>Cornmarket to Westmoreland Street</b>	<b>Average Range</b>	9:59 8:02 to 14:24	7:12 6:06 to 8:30	N/A N/A	N/A N/A	11:35 8:42 to 14:27	N/A N/A	N/A N/A	N/A N/A
<b>Aston Quay to Bridge Street</b>	<b>Average Range</b>	N/A N/A	N/A N/A	11:03 4:35 to 17:19	8:33 3:23 to 17:38	N/A N/A	N/A N/A	4:16 3:52 to 5:05	3:26 1:31 to 5:14
<b>Bridge Street to Cornmarket</b>	<b>Average Range</b>	N/A N/A	N/A N/A	2:43 2:04 to 4:02	3:00 1:45 to 3:46	N/A N/A	N/A N/A	2:52 2:04 to 3:48	N/A N/A

Table 8f Rathfarnham QBC

Rathfarnham QBC Roadside Survey Results - November 2002									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
<b>Terminus to Oakdown Road</b>	<b>Average Range</b>	N/A N/A	N/A N/A	0:35 0:13 to 1:05	0:20 0:12 to 0:27	N/A N/A	N/A N/A	0:29 0:19 to 0:38	0:16 0:09 to 0:21
<b>Oakdown Rd to R'nham Rd/Butterfield</b>	<b>Average Range</b>	9:32 7:01 to 13:40	N/A N/A	7:01 5:11 to 8:41	N/A N/A	8:00 7:46 to 8:14	4:30 4:30 to 4:30	6:08 4:23 to 7:15	N/A N/A
<b>Rathfarnham Road to Butterfield Avenue</b>	<b>Average Range</b>	N/A N/A	N/A N/A	0:29 0:11 to 0:42	0:16 0:11 to 0:25	N/A N/A	N/A N/A	0:18 0:10 to 0:26	0:11 0:09 to 0:16
<b>Rathfarnham Road to Brookvale Road</b>	<b>Average Range</b>	2:29 1:12 to 3:57	1:17 0:17 to 2:12	N/A N/A	N/A N/A	0:34 0:28 to 0:43	0:16 0:10 to 0:26	N/A N/A	N/A N/A
<b>Terenure Road North to Rathfarnham Road</b>	<b>Average Range</b>	N/A N/A	N/A N/A	7:55 5:08 to 11:50	7:47 4:23 to 10:31	N/A N/A	N/A N/A	4:40 4:15 to 5:15	4:37 4:07 to 5:03
<b>Brookvale Road to Terenure Road East</b>	<b>Average Range</b>	4:35 2:40 to 8:30	4:25 3:07 to 8:02	N/A N/A	N/A N/A	1:42 1:12 to 2:09	2:15 1:26 to 3:31	N/A N/A	N/A N/A
<b>Whitton Road to Terenure Road North</b>	<b>Average Range</b>	N/A N/A	N/A N/A	0:37 0:17 to 1:04	0:57 0:15 to 2:15	N/A N/A	N/A N/A	0:39 0:23 to 1:20	0:48 0:18 to 1:51
<b>Terenure Road East to Mount Tallant Avenue</b>	<b>Average Range</b>	9:44 3:38 to 22:52	13:01 1:49 to 22:22	N/A N/A	N/A N/A	3:43 2:36 to 5:05	3:01 1:53 to 6:25	N/A N/A	N/A N/A
<b>Leinster Road to Whitton Road</b>	<b>Average Range</b>	N/A N/A	N/A N/A	8:14 4:55 to 13:53	8:06 5:03 to 12:33	N/A N/A	N/A N/A	4:13 3:27 to 5:11	3:06 2:11 to 3:50
<b>Mount Tallant Avenue to Leinster Road West</b>	<b>Average Range</b>	6:30 1:25 to 13:43	13:19 2:10 to 26:32	N/A N/A	N/A N/A	2:11 0:49 to 3:07	1:03 0:36 to 1:54	N/A N/A	N/A N/A

Table 8f Rathfarnham QBC (continued)

Rathfarnham QBC Roadside Survey Results - November 2002									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Leinster Road West to Harolds Cross Road	Average Range	5:23 2:36 to 7:26	6:02 1:58 to 10:40	N/A N/A	N/A N/A	0:52 0:22 to 1:15	0:24 0:12 to 0:41	N/A N/A	N/A N/A
Harolds Cross Road to Clanbrassil Street	Average Range	8:19 4:16 to 11:20	12:20 6:35 to 17:58	7:20 3:11 to 9:51	5:20 2:12 to 8:17	4:12 3:04 to 5:23	3:38 2:20 to 8:06	3:32 1:16 to 5:09	3:12 2:21 to 4:06
Clanbrassil Street to South Circular Road	Average Range	6:28 2:20 to 12:10	8:31 3:05 to 21:56	2:12 0:59 to 3:25	3:46 2:21 to 6:02	2:20 1:08 to 3:05	N/A N/A	1:05 0:16 to 3:41	0:57 0:10 to 2:44
South Circular Road to Camden Street	Average Range	6:11 2:35 to 9:30	4:45 1:21 to 10:02	5:17 3:49 to 6:25	N/A N/A	5:30 4:08 to 6:18	N/A N/A	5:43 4:20 to 6:42	N/A N/A
Camden Street to Bishop Street	Average Range	N/A N/A	N/A N/A	N/A N/A	N/A N/A	3:06 2:21 to 3:50	5:06 2:38 to 7:34	2:19 1:49 to 3:17	2:52 1:22 to 4:57
Camden Street to Stephen Street	Average Range	9:38 2:14 to 26:11	12:52 3:59 to 30:59	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Camden St to W'land St/College Green	Average Range	N/A N/A	N/A N/A	12:39 9:52 to 20:06	10:59 6:29 to 17:55	N/A N/A	N/A N/A	9:06 6:50 to 11:02	N/A N/A
Bishop Street to Stephen Street	Average Range	N/A N/A	N/A N/A	N/A N/A	N/A N/A	1:13 0:29 to 2:21	1:34 0:10 to 4:21	N/A N/A	N/A N/A
Stephen Street to Westmoreland Street	Average Range	3:59 1:29 to 6:10	N/A N/A	N/A N/A	N/A N/A	4:30 3:22 to 5:38	N/A N/A	N/A N/A	N/A N/A

Table 8g Stillorgan QBC

Stillorgan QBC Roadside Survey Results November 2002									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Dun Laoghaire Station to Oliver Plunkett Road	Average Range	6:28 4:57 to 7:43	N/A N/A	6:00 4:56 to 6:35	N/A N/A	6:14 4:33 to 8:33	N/A N/A	6:18 4:55 to 7:39	N/A N/A
Oliver Plunkett Road to Foxrock Church	Average Range	15:08 9:43 to 20:40	N/A N/A	16:06 13:42 to 20:58	N/A N/A	10:25 9:24 to 11:42	N/A N/A	9:28 5:34 to 12:44	N/A N/A
Foxrock Church to Mount Merrion Avenue	Average Range	15:29 10:56 to 19:47	44:46 23:12 to 66:30	14:54 12:21 to 17:18	19:49 11:02 to 23:13	11:53 8:31 to 14:27	5:43 4:16 to 6:59	10:10 9:22 to 10:47	6:41 5:03 to 9:59
Mount Merrion Avenue to Donnybrook	Average Range	15:25 10:31 to 19:19	34:47 30:32 to 38:40	7:23 3:58 to 10:21	9:58 5:54 to 13:07	7:59 7:09 to 9:35	6:51 5:20 to 10:00	6:38 6:02 to 7:16	5:54 5:20 to 6:21
Donnybrook to Leeson Street	Average Range	15:48 8:10 to 24:33	N/A N/A	13:47 8:45 to 22:31	15:26 15:26	6:59 5:37 to 7:40	5:39 5:00 to 6:49	20:22 14:56 to 25:08	14:00 14:00
Leeson Street to Fleet Street	Average Range	10:04 7:39 to 13:20	N/A N/A	8:06 5:55 to 10:52	N/A N/A	9:03 6:41 to 12:20	N/A N/A	6:53 4:46 to 10:06	N/A N/A



Table 8h Swords QBC

Swords QBC Roadside Survey Results - November 2002									
Sectional Results									
		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
Section		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Swords Main Street to Cloghran Rbt	Average Range	12:39 5:46 to 20:14	15:15 15:15	7:20 6:45 to 7:47	9:46 7:53 to 13:11	8:01 6:23 to 10:36	4:04 2:57 to 4:53	7:52 7:00 to 8:33	5:40 3:37 to 10:09
Cloghran Rbt to Airport South	Average Range	3:30 2:22 to 4:34	3:15 2:17 to 4:27	7:00 4:50 to 9:25	4:02 2:43 to 5:20	2:40 2:40	2:26 1:49 to 3:00	7:02 6:27 to 7:33	6:17 2:53 to 9:01
Airport South to Omni Park	Average Range	8:03 5:47 to 11:46	5:58 4:33 to 7:08	8:58 4:26 to 11:48	7:11 5:34 to 8:23	7:25 6:27 to 8:01	6:19 5:52 to 6:41	8:45 6:09 to 10:50	8:55 7:45 to 10:51
Omni Park to Collins Avenue	Average Range	9:12 4:43 to 13:06	15:31 10:35 to 20:20	7:56 5:18 to 10:07	6:51 5:53 to 8:43	4:13 3:51 to 4:34	5:25 3:23 to 7:26	5:29 4:47 to 6:15	3:49 3:02 to 4:35
Collins Avenue to Richmond Rd	Average Range	5:11 2:47 to 7:58	12:55 7:16 to 15:19	13:41 7:57 to 20:47	16:12 12:12 to 22:58	3:40 2:33 to 4:25	2:47 2:01 to 3:31	5:32 3:48 to 7:12	4:07 2:19 to 5:25
Richmond Rd to O'Connell Street	Average Range	15:44 12:19 to 23:00	N/A N/A	N/A N/A	N/A N/A	16:19 10:49 to 24:21	N/A N/A	N/A N/A	N/A N/A
Eden Quay to Richmond Rd	Average Range	N/A N/A	N/A N/A	21:46 15:04 to 31:32	N/A N/A	N/A N/A	N/A N/A	18:20 12:26 to 25:01	N/A N/A

Table 8i Tallaght QBC

Tallaght QBC Roadside Survey Results - November 2002									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Tallaght Bypass to Main Street	Average Range	7:55 6:20 to 10:00	N/A N/A	9:20 7:33 to 11:33	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Main Street to West M50	Average Range	4:25 2:58 to 6:13	N/A N/A	4:44 3:51 to 5:25	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
West M50 to East M50	Average Range	2:49 1:57 to 3:20	2:17 1:11 to 2:49	1:27 1:19 to 1:42	1:18 0:53 to 1:52	2:10 1:40 to 2:29	1:58 1:15 to 3:25	1:37 1:17 to 1:53	1:06 0:58 to 1:13
East M50 to Oldbridge Road	Average Range	2:07 0:57 to 2:28	2:56 1:05 to 5:35	3:03 2:08 to 4:04	1:59 0:56 to 3:08	1:52 1:31 to 2:05	1:16 1:03 to 1:45	2:04 1:26 to 2:44	1:24 1:00 to 1:44
Oldbridge Road to Fortfield Road	Average Range	5:50 3:21 to 8:56	5:03 3:22 to 6:42	9:41 7:58 to 12:10	9:15 4:38 to 17:33	4:05 3:44 to 4:20	3:40 3:13 to 4:04	4:51 3:31 to 5:35	3:57 3:28 to 4:19
Fortfield Road to Rathdown Park	Average Range	0:53 0:35 to 1:07	2:11 0:38 to 5:41	0:29 0:25 to 0:36	0:31 0:11 to 1:11	0:44 0:31 to 1:12	0:35 0:20 to 0:57	0:41 0:26 to 0:48	0:26 0:18 to 0:40
Rathdown Park to Terenure Road East	Average Range	11:17 8:19 to 13:17	11:06 8:24 to 13:43	7:26 5:06 to 9:27	5:20 2:07 to 8:17	6:24 5:10 to 7:31	5:19 3:30 to 6:25	4:59 3:11 to 9:02	5:08 2:38 to 7:32
Terenure Road East to Rathgar Road	Average Range	19:58 8:25 to 24:52	29:39 13:39 to 42:41	4:16 2:58 to 5:38	3:38 2:08 to 6:22	4:49 3:25 to 7:05	2:55 2:14 to 4:04	3:35 2:29 to 4:14	2:09 2:05 to 2:14
Rathgar Road to Leinster Road	Average Range	9:15 3:58 to 15:12	6:24 3:15 to 10:31	2:38 1:33 to 3:51	1:13 0:50 to 1:42	2:21 1:24 to 3:07	1:42 1:00 to 2:26	2:05 1:33 to 2:42	1:07 0:44 to 1:49
Leinster Road to Canal	Average Range	3:51 1:46 to 8:43	4:55 1:41 to 10:34	3:10 1:58 to 4:24	2:27 1:15 to 3:25	1:38 1:01 to 2:14	0:54 0:40 to 1:34	2:15 1:36 to 3:00	1:21 0:52 to 1:54

Table 8i Tallaght QBC (continued)

Tallaght QBC Roadside Survey Results - November 2002									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Canal to Camden Street	Average Range	4:25 2:40 to 6:56	4:26 2:17 to 6:53	6:26 4:45 to 9:01	5:11 3:11 to 7:23	2:50 2:22 to 3:13	2:46 2:00 to 3:42	4:02 3:46 to 4:14	4:13 3:07 to 4:52
Camden Street to Dame Street	Average Range	N/A N/A	N/A N/A	6:14 4:25 to 9:58	5:22 2:39 to 7:34	N/A N/A	N/A N/A	5:29 4:09 to 6:47	3:44 2:57 to 4:31
Dame Street to Tara St / Eden Quay	Average Range	7:14 4:47 to 9:22	N/A N/A	5:49 3:31 to 7:16	N/A N/A	8:56 5:21 to 13:17	N/A N/A	6:08 4:07 to 7:12	N/A N/A

## 12 Sectional Bus Speeds

The data used to compile the sectional bus journey times shown in **Section 11** is used to convert time to speed.

The results for each QBC for all the time periods surveyed are shown in **Tables 9a to 9i**.

Each table is colour coded as follows:

- **Yellow** denotes those sections where average speed is less than 5 kilometres per hour which effectively is walking speed
- **Blue** denotes those sections where average speed is greater than 5 but less than 10 kilometres per hour
- **Green** denotes those sections where average speed is greater than 10 but less than the minimum QBC specification speed (ie 20 kilometres per hour less 12% boarding and alighting time)

White denotes those sections that exceed the QBC specification

**Table 9a Blanchardstown QBC**

<b>Blanchardstown QBC Roadside Survey Results - November 2002</b>				
<b>Sectional Results - Bus Journey Speeds</b>				
<b>Section</b>	<b>Distance Metres</b>		<b>AM Peak Inbound Km/h</b>	<b>Off Peak Inbound Km/h</b>
Clonsilla to Blanchardstown Road South via Town Centre	7763	Average Range	16.72 15.05 to 19.46	23.21 18.18 to 30.91
Blakestown Way to Rear of Town C'tre (Peak)	1074	Average Range	24.78 20.57 to 31.70	N/A N/A
Blanchardstown Road South to Coolmine Rd	1719	Average Range	18.31 12.18 to 26.22	N/A N/A
Rear of Shopping Centre to River Rd Roundabout (Peak)	1727	Average Range	26.79 19.13 to 40.63	N/A N/A
Coolmine Rd to River Road Roundabout	2208	Average Range	12.42 10.36 to 15.62	N/A N/A
River Road Roundabout to New River Road	983	Average Range	22.40 19.45 to 28.31	26.60 25.83 to 27.43
New River Road to Ashtown Roundabout	1958	Average Range	44.62 29.87 to 64.66	49.99 45.53 to 63.50
Ashtown Roundabout to Ratoath Road	2395	Average Range	19.46 15.53 to 28.18	27.46 21.72 to 40.28
Ratoath Road to Manor Street	1500	Average Range	6.90 5.55 to 12.16	18.62 15.47 to 20.93
Manor Street to Capel Street	1659	Average Range	9.27 6.19 to 14.02	6.91 6.91
Capel Street to Tara Street	1278	Average Range	6.66 6.42 to 6.93	7.14 6.06 to 8.03
<b>Total Inbound Distance Clonsilla to Tara Street</b>	<b>21463</b>	<b>Average Range</b>	<b>13.49 11.87 to 15.40</b>	<b>N/A N/A</b>
<b>Total Inbound Distance B'town Rd Sth to Capel St</b>	<b>12422</b>	<b>Average Range</b>	<b>13.58 11.96 to 15.70</b>	<b>N/A N/A</b>
<b>Total Inbound Distance B'town Rd Sth to Manor St</b>	<b>10763</b>	<b>Average Range</b>	<b>14.56 12.51 to 17.43</b>	<b>26.32 22.57 to 30.25</b>
<b>Total Inbound Distance Rear of Town Ctre to Capel St</b>	<b>10222</b>	<b>Average Range</b>	<b>14.30 12.57 to 16.73</b>	<b>N/A N/A</b>
<b>Total Inbound Distance New River Road to Capel St</b>	<b>7512</b>	<b>Average Range</b>	<b>12.18 11.13 to 13.42</b>	<b>18.30 17.86 to 18.55</b>

**Table 9a Blanchardstown QBC (continued)**

Blanchardstown QBC Roadside Survey Results - November 2002				
Sectional Results - Bus Journey Speeds				
Section	Distance Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Hawkins Street to Watling Street	2190	Average Range	7.77 5.74 to 10.02	9.82 9.36 to 10.20
Watling Street to Manor Street	824	Average Range	9.04 6.22 to 13.48	10.67 10.67
Manor Street to Ratoath Road	1459	Average Range	19.24 11.94 to 27.36	18.89 13.82 to 24.89
Ratoath Road to Ashtown Roundabout	2565	Average Range	18.73 12.84 to 30.37	19.52 16.88 to 22.80
Ashtown Roundabout to New River Road	1811	Average Range	72.44 61.49 to 93.11	81.51 67.20 to 100.33
New River Road to River Road Roundabout	1108	Average Range	21.33 12.66 to 36.27	21.56 16.28 to 28.29
River Road Roundabout to Coolmine Road	1984	Average Range	13.01 9.31 to 15.33	17.77 16.34 to 20.41
River Road Roundabout to Rear of Town Centre (Peak)	1648	Average Range	45.29 45.29	N/A N/A
Coolmine Road to Blakestown Way via Town Centre	3416	Average Range	15.05 9.95 to 19.40	11.83 9.60 to 13.99
Rear of Shopping Centre to Blakestown Way (Peak)	977	Average Range	23.45 21.85 to 25.49	N/A N/A
Blakestown Way to Clonsilla	6184	Average Range	21.72 20.29 to 23.00	18.99 18.99
Total Outbound Distance Hawkins St to Clonsilla	21541	Average Range	15.53 14.32 to 18.46	N/A N/A
Total Outbound Distance Hawkins St to New River Road	8849	Average Range	14.34 12.89 to 17.67	15.41 15.41
Total Outbound Distance Merchants Quay to New River Rd	7433	Average Range	20.73 18.54 to 22.21	17.38 17.38

**Table 9b Finglas QBC**

Finglas QBC Roadside Survey Results - November 2002				
Sectional Results - Bus Journey Speeds				
Section	Distance Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Finglas Road to Prospect Road/Whitworth Road	3222	Average Range	19.20 14.79 to 21.48	23.53 20.49 to 27.35
Prospect Road/Whitworth Road to Dorset Street Lower	957	Average Range	15.38 10.73 to 19.58	16.72 14.60 to 25.52
Dorset Street Lower to Parnell Square East	1093	Average Range	14.00 10.78 to 21.15	12.82 9.48 to 15.74
Corridor Inbound Distance Finglas Rd to Parnell Square	5272	Average Range	17.43 15.18 to 20.08	18.85 15.59 to 20.72
Section	Distance Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Parnell Street to Dorset Street Lower	1218	Average Range	8.03 6.39 to 16.42	10.34 7.64 to 14.66
Dorset Street Lower to Whitworth Road/Prospect Rd	952	Average Range	6.54 4.53 to 8.85	15.23 13.18 to 19.15
Whitworth Road to Finglas Road	2907	Average Range	23.84 20.72 to 26.83	26.43 19.24 to 36.85
Corridor Outbound Distance Parnell St to Finglas Rd	5077	Average Range	12.11 11.02 to 14.36	17.46 15.19 to 23.98

Table 9c Lucan QBC

Lucan QBC Roadside Survey Results - November 2002				
Sectional Results - Bus Journey Speeds				
Section	Distance Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Foxhunter to West of M50	2026	Average Range	25.86 19.35 to 35.75	60.27 48.29 to 68.79
West of M50 to Palmerston	1595	Average Range	28.71 24.23 to 46.68	35.88 23.82 to 41.92
Palmerston to Chapelizod Slip	267	Average Range	10.33 5.69 to 22.88	12.32 7.51 to 19.61
Chapelizod Slip to Con Colbert Rd (Expresso)	3601	Average Range	44.25 31.93 to 53.79	N/A N/A
Chapelizod Slip to Conyngham Rd	4080	Average Range	18.00 14.20 to 26.90	30.47 26.04 to 37.66
Conyngham Rd to Parkgate St	951	Average Range	14.32 6.96 to 27.39	20.38 12.68 to 30.30
Con Colbert Rd to Ellis Quay (Expresso)	2344	Average Range	12.56 9.22 to 25.19	N/A N/A
Parkgate St to Ellis Quay	595	Average Range	8.08 5.01 to 16.10	17.85 7.76 to 39.67
Ellis Quay to Arran Quay	497	Average Range	5.88 3.98 to 8.32	6.55 5.34 to 8.28
Total Inbound Distance Via Bypass (Expresso)	10330	Average Range	19.64 17.30 to 23.84	N/A N/A
Total Inbound Distance Via Chapelizod	10011	Average Range	17.87 12.80 to 22.38	26.15 20.66 to 30.70
Section	Distance Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Wellington Quay to Merchants Quay	824	Average Range	4.66 2.77 to 9.07	6.79 4.72 to 12.06
Merchants Quay to Conyngham Rd	2222	Average Range	32.12 19.32 to 62.01	34.78 27.21 to 40.81
Merchants Quay to Con Colbert Rd (Expresso)	2878	Average Range	30.03 29.60 to 30.46	N/A N/A
Con Colbert Rd to Chapelizod Slip (Expresso)	3009	Average Range	29.04 18.55 to 40.12	N/A N/A
Conyngham Rd to Chapelizod Slip	3875	Average Range	20.79 16.55 to 25.36	26.42 22.76 to 31.92
Chapelizod Slip to Palmerston	926	Average Range	21.79 14.00 to 46.96	24.88 10.26 to 60.59
Palmerston to West M50	1558	Average Range	26.33 15.93 to 44.88	44.16 33.18 to 65.23
West M50 to Foxhunter	1967	Average Range	35.76 24.50 to 71.53	47.53 34.71 to 81.39
Total Outbound Distance Via Bypass	11162	Average Range	22.44 18.59 to 28.30	N/A N/A
Total Outbound Distance Via Chapelizod	11372	Average Range	18.93 14.88 to 23.26	23.62 20.04 to 27.11



Table 9d Malahide QBC

Malahide QBC Roadside Survey Results - November 2002				
Sectional Results - Bus Journey Speeds				
Section	Distance Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Clare Hall to Priorswood Road	1185	Average Range	21.54 13.94 to 33.58	34.13 29.02 to 47.40
Priorswood Road to Greencastle Road (Direct)	992	Average Range	51.00 37.20 to 83.01	N/A N/A
Priorswood Rd to Greencastle Road (via Darndale)	4089	Average Range	18.52 15.17 to 24.82	19.92 16.67 to 23.74
Greencastle Road to Kilmore Road	1532	Average Range	13.86 9.24 to 21.38	20.35 18.45 to 23.17
Greencastle Road to St Davids Wood	1682	Average Range	11.66 7.83 to 17.35	19.41 17.92 to 23.29
Kilmore Road to St Davids Wood	150	Average Range	4.57 2.04 to 20.00	9.47 6.58 to 24.52
Kilmore Road to Collins Avenue	821	Average Range	8.67 6.54 to 13.43	21.58 14.70 to 33.22
St Davids Wood to Collins Avenue	671	Average Range	10.59 6.08 to 17.76	27.44 17.01 to 36.04
Collins Avenue to Casino Park	318	Average Range	6.06 3.84 to 16.59	19.73 10.80 to 35.80
Casino Park to Amiens Street	3030	Average Range	17.97 14.52 to 26.16	24.73 19.62 to 32.46
Casino Park to Talbot Street	3465	Average Range	15.79 12.65 to 20.75	19.99 16.39 to 23.58
Amiens Street to Talbot Street	435	Average Range	8.85 5.65 to 14.24	7.25 4.16 to 11.43
Total Inbound Distance Clare Hall to Talbot St (Direct)	8313	Average Range	15.93 13.15 to 22.90	N/A N/A
Total Inbound Distance Clare Hall to Talbot St (D'dale)	11410	Average Range	15.56 12.80 to 20.11	21.47 17.97 to 23.89
Total Inbound Distance Greencastle Rd to Talbot St	6136	Average Range	12.97 10.64 to 16.91	20.06 17.30 to 21.89

**Table 9e North Clondalkin QBC**

North Clondalkin QBC Roadside Survey Results - November 2002				
Sectional Results - Bus Journey Speeds				
Section	Distance Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Emmet Road to Mount Brown	1150	Average Range	20.91 16.76 to 26.20	26.54 21.02 to 33.94
Mount Brown to Cornmarket	1068	Average Range	10.71 8.70 to 15.08	10.12 8.06 to 13.08
Cornmarket to Westmoreland Street	1365	Average Range	8.20 5.69 to 10.19	7.07 5.67 to 9.41
Inbound Distance Emmet Rd to Westmoreland St	3583	Average Range	11.17 8.84 to 13.26	10.63 10.08 to 11.24
Section	Distance Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Aston Quay to Bridge Street	1086	Average Range	5.90 3.76 to 14.22	15.27 12.82 to 16.85
Bridge Street to Cornmarket	316	Average Range	6.98 4.70 to 9.17	6.61 4.99 to 9.17
Cornmarket to James Street	796	Average Range	11.60 7.27 to 27.03	6.63 5.73 to 8.40
James Street to Emmet Road	2277	Average Range	6.40 3.84 to 13.37	20.14 13.39 to 29.07
Outbound Distance Aston Quay to Emmet Road	4475	Average Range	7.95 5.73 to 11.78	12.90 11.00 to 16.13

Table 9f Rathfarnham QBC

Rathfarnham QBC Roadside Survey Results - November 2002				
Sectional Results - Bus Journey Speeds				
Section	Distance Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Oakdown Road to Rathfarnham Road	2098	Average Range	13.20 9.21 to 17.93	15.73 15.29 to 16.21
Rathfarnham Road to Brookvale Road	277	Average Range	6.69 4.21 to 13.85	29.31 23.18 to 35.59
Brookvale Road to Terenure Road East	759	Average Range	9.94 5.36 to 17.07	26.79 21.18 to 37.95
Terenure Road East to Mount Tallant Avenue	816	Average Range	5.03 2.14 to 13.48	13.17 9.63 to 18.83
Mount Tallant Avenue to Leinster Road West	513	Average Range	4.73 2.24 to 21.72	14.10 9.87 to 37.68
Leinster Road West to Harolds Cross Road	214	Average Range	2.38 1.73 to 4.94	14.81 10.27 to 34.99
Harolds Cross Road to Clanbrassil Street	1043	Average Range	7.52 5.52 to 14.67	14.90 11.62 to 20.40
Clanbrassil Street to South Circular Road	478	Average Range	4.43 2.36 to 12.29	12.29 9.30 to 25.31
South Circular Road to Camden Street	777	Average Range	7.54 4.91 to 18.05	8.48 7.40 to 11.28
Camden Street to Bishop Street	142	Average Range	N/A N/A	2.75 2.22 to 3.62
Camden Street to Stephen Street	565	Average Range	3.52 1.29 to 15.18	N/A N/A
Bishop Street to Stephen Street	423	Average Range	N/A N/A	20.85 10.80 to 52.55
Stephen Street to Westmoreland Street	655	Average Range	9.87 6.37 to 26.50	8.73 6.98 to 11.67
Total Inbound Oakdown Rd to W'land St	8195	Average Range	8.77 5.14 to 13.23	13.46 12.68 to 14.34
Total Inbound Rathfarnham to W'land St	6097	Average Range	7.48 5.31 to 9.91	12.82 11.97 to 13.80

Table 9f Rathfarnham QBC (continued)

Rathfarnham QBC Roadside Survey Results - November 2002				
Sectional Results - Bus Journey Speeds				
Section	Distance Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
College Green to Camden Street	1236	Average Range	5.86 3.69 to 7.51	8.15 6.72 to 10.85
Camden Street to South Circular Road	958	Average Range	10.88 8.96 to 15.06	10.05 8.58 to 13.26
South Circular Road (Outbound Bus Lane)	247	Average Range	6.74 4.34 to 15.08	13.68 4.02 to 55.50
South Circular Road to Leinster Road	1176	Average Range	9.62 7.16 to 22.17	19.97 13.70 to 55.69
Leinster Road to Whitton Road	1240	Average Range	9.04 5.36 to 15.13	17.64 14.35 to 21.56
Whitton Road to Terenure Road North	174	Average Range	16.92 9.78 to 36.89	16.06 5.22 to 27.26
Terenure Road North to Rathfarnham Road	1287	Average Range	9.75 6.52 to 15.04	16.54 14.71 to 18.17
Rathfarnham Road to Butterfield Avenue	166	Average Range	20.62 14.23 to 54.43	33.20 23.00 to 59.64
Butterfield Avenue to Oakdown Road	1826	Average Range	15.61 12.62 to 21.14	17.86 15.11 to 25.00
Oakdown Road to Terminus	299	Average Range	30.77 16.56 to 82.67	37.14 28.34 to 56.59
College Green to Terminus	8609	Average Range	9.99 9.33 to 10.65	14.48 12.89 to 16.12
College Green to Butterfield Avenue	6484	Average Range	8.72 7.83 to 10.95	13.14 11.95 to 14.12

Table 9g Stillorgan QBC

Stillorgan QBC Roadside Survey Results - November 2002				
Sectional Results - Bus Journey Speeds				
Section	Distance Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Dun Laoghaire Station to Oliver Plunkett Road	2409	Average Range	22.35 18.73 to 29.20	23.19 16.90 to 31.76
Oliver Plunkett Road to Foxrock Church	3130	Average Range	12.41 9.09 to 19.33	18.03 16.05 to 19.98
Foxrock Church to Mount Merrion Avenue	Peak 3393	Average Range	13.15 10.29 to 18.62	N/A N/A
Foxrock Church to Mount Merrion Avenue	Off Peak 3529	Average Range	N/A N/A	17.82 14.65 to 24.86
Mount Merrion Avenue to Donnybrook	3267	Average Range	12.71 10.15 to 18.64	24.55 20.45 to 27.41
Donnybrook to Leeson Street	2525	Average Range	9.59 6.17 to 18.55	21.69 19.76 to 26.97
Leeson Street to Fleet Street	1759	Average Range	10.48 7.91 to 13.80	11.66 8.56 to 15.79
Total Inbound Distance Dun Laoghaire to Fleet St	Peak 16483	Average Range	15.47 13.56 to 16.93	N/A N/A
Corridor Distance Foxrock Church to Leeson St	Peak 9185	Average Range	16.74 14.18 to 22.19	N/A N/A
Corridor Distance Foxrock Church to Leeson St	Off Peak 9321	Average Range	N/A N/A	21.61 18.67 to 25.04
Corridor Distance Foxrock Church to Fleet St	Peak 10944	Average Range	16.03 13.18 to 19.14	N/A N/A
Corridor Distance Foxrock Church to Fleet St	Off Peak 11080	Average Range	N/A N/A	17.60 17.60
Non QBC Distance Dun Laoghaire to Foxrock Ch	5539	Average Range	15.04 11.94 to 18.14	20.12 18.62 to 21.46

**Table 9g Stillorgan QBC (continued)**

<b>Stillorgan QBC Roadside Survey Results - November 2002</b>				
<b>Sectional Results - Bus Journey Speeds</b>				
<b>Section</b>	<b>Distance Metres</b>		<b>PM Peak Outbound Km/h</b>	<b>Off Peak Outbound Km/h</b>
Fleet Street to Leeson Street	1536	Average Range	11.38 8.48 to 15.57	13.39 9.12 to 19.33
Leeson Street to Donnybrook	2506	Average Range	10.91 6.68 to 17.18	7.38 5.98 to 10.07
Donnybrook to Mount Merrion Avenue	3283	Average Range	26.68 19.03 to 49.65	29.70 27.11 to 32.65
Mount Merrion Avenue to Foxrock Church	3583	Average Range	14.43 12.43 to 17.41	21.14 19.94 to 22.95
Foxrock Church to Oliver Plunkett Road	3226	Average Range	12.02 9.23 to 14.13	20.44 15.20 to 34.77
Oliver Plunkett Road to Dun Laoghaire	1980	Average Range	19.80 18.05 to 24.08	18.86 15.53 to 24.16
Total Outbound Distance Fleet St to Dun Laoghaire	16114	Average Range	13.95 13.12 to 15.28	N/A N/A
Corridor Distance Leeson St to Foxrock Church	9372	Average Range	15.40 13.32 to 17.68	15.29 15.29
Corridor Distance Fleet St to Foxrock Church	10908	Average Range	14.27 12.41 to 16.84	15.74 15.74
Non QBC Distance Foxrock Ch to Dun Laoghaire	5206	Average Range	14.51 12.06 to 20.35	19.79 16.57 to 22.69

Table 9h Swords QBC

Swords QBC Roadside Survey Results - November 2002				
Sectional Results - Bus Journey Speeds				
Section	Distance Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Swords Main Street to Cloghran Roundabout	3636	Average Range	17.24 10.78 to 37.83	27.21 20.58 to 34.18
Cloghran Rbt to Airport South (Not via Airport)	1388	Average Range	23.79 18.23 to 35.18	31.23 31.23
Cloghran Rbt to Airport South (Via Airport)	3886	Average Range	19.96 17.57 to 22.49	21.10 20.27 to 22.75
Airport South to Omni Park	3741	Average Range	27.88 19.07 to 38.81	30.26 28.00 to 34.80
Omni Park to Collins Avenue	1423	Average Range	9.28 6.52 to 18.10	20.25 18.69 to 22.18
Collins Avenue to Richmond Rd	1532	Average Range	17.73 11.54 to 33.03	25.07 20.81 to 36.05
Richmond Rd to O'Connell Street	2440	Average Range	9.30 6.36 to 11.89	8.97 6.01 to 13.53
Total Inbound Distance Swords to O'Connell St	Direct 14160	Average Range	14.86 12.85 to 19.13	19.58 15.88 to 23.93
Section	Distance Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Eden Quay to Richmond Road	2406	Average Range	6.63 4.58 to 9.58	7.87 5.77 to 11.61
Richmond Rd to Collins Avenue	1741	Average Range	7.63 5.03 to 13.14	18.88 14.51 to 27.49
Collins Avenue to Omni Park	1298	Average Range	9.82 7.70 to 14.69	14.20 12.46 to 16.28
Omni Park to Airport South	3746	Average Range	25.06 19.05 to 50.70	25.69 20.75 to 36.55
Airport South to Cloghran Rbt (Not Via Airport)	1360	Average Range	N/A	N/A
Airport South to Cloghran Rbt (Via Airport)	2945	Average Range	25.12 23.40 to 27.39	25.24 18.76 to 36.56
Cloghran Roundabout to Swords Main Street	3526	Average Range	28.85 27.18 to 31.34	26.89 24.74 to 30.22
Total Outbound Distance Eden Quay to Swords (A)	Via Airport 15662	Average Range	13.14 11.84 to 16.29	17.82 15.38 to 21.23

Code: A Via Airport

**Table 9i Tallaght QBC**

Tallaght QBC Roadside Survey Results - November 2002				
Sectional Results - Bus Journey Speeds				
Section	Distance Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Tallaght Bypass to Main Street	3226	Average Range	24.45 19.36 to 30.56	N/A N/A
Main Street to West M50	1850	Average Range	25.13 17.85 to 37.41	N/A N/A
West M50 to East M50	673	Average Range	14.33 12.11 to 20.71	18.63 16.26 to 24.22
East M50 to Oldbridge Road	1412	Average Range	40.02 34.54 to 89.18	45.38 40.67 to 55.85
Oldbridge Road to Fortfield Road	1212	Average Range	12.47 8.14 to 21.71	17.81 16.78 to 19.48
Fortfield Road to Rathdown Park	595	Average Range	40.43 31.96 to 61.23	48.70 29.75 to 69.05
Rathdown Park to Terenure Road East	806	Average Range	4.29 3.64 to 5.81	7.56 6.43 to 9.36
Terenure Road East to Rathgar Road	1256	Average Range	3.77 3.03 to 8.95	15.64 10.64 to 22.05
Rathgar Road to Leinster Road	495	Average Range	3.21 1.95 to 7.49	12.64 9.53 to 21.21
Leinster Road to Grove Park	594	Average Range	9.26 4.09 to 20.17	21.82 15.96 to 35.04
Grove Park to Camden Street Lower	525	Average Range	7.13 4.54 to 11.81	11.12 9.79 to 13.31
Camden Street Lower to Dame Street	1252	Average Range	N/A N/A	N/A N/A
Dame Street to Tara Street Bridge	821	Average Range	6.81 5.26 to 10.30	5.51 3.71 to 9.21

Total Inbound Distance            14717

West M50 to Camden St Lower	7568	Average Range	9.06 7.08 to 12.75	16.98 14.65 to 19.77
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**Table 9i Tallaght QBC (continued)**

Tallaght QBC Roadside Survey Results				
Sectional Results - Bus Journey Speeds				
Section	Distance Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Eden Quay to Dame Street	806	Average	8.31	7.88
		Range	6.65 to 13.75	6.72 to 11.75
Dame Street to Camden Street Lower	1253	Average	12.06	13.71
		Range	7.54 to 17.02	11.08 to 18.11
Camden Street Lower to Grove Park	748	Average	6.98	11.13
		Range	4.98 to 9.45	10.60 to 11.91
Grove Park to Leinster Road	595	Average	11.27	15.87
		Range	8.11 to 18.15	11.90 to 22.31
Leinster Road to Rathgar Road	357	Average	8.13	10.28
		Range	5.56 to 13.82	7.93 to 13.82
Rathgar Road to Terenure Road East	1410	Average	19.83	23.61
		Range	15.02 to 28.51	19.99 to 34.07
Terenure Road East to Rathdown Park	800	Average	6.46	9.63
		Range	5.08 to 9.41	5.32 to 15.08
Rathdown Park to Fortfield Road	596	Average	74.03	52.36
		Range	59.60 to 85.76	44.70 to 82.59
Fortfield Road to Oldbridge Road	1298	Average	8.04	16.06
		Range	6.40 to 9.77	13.95 to 22.14
Oldbridge Road to East of M50	1327	Average	26.10	38.52
		Range	19.58 to 37.33	29.13 to 55.56
East of M50 to West of M50	653	Average	27.02	24.23
		Range	23.05 to 29.75	20.81 to 30.54
West of M50 to Main Street Tallaght	1917	Average	24.30	N/A
		Range	21.23 to 29.87	N/A
Main Street Tallaght to Tallaght Bypass	3279	Average	21.08	N/A
		Range	17.03 to 26.06	N/A

Total Outbound Distance            15039

Camden St Lower to West M50	7784	Average	12.18	17.34
		Range	11.07 to 15.02	16.85 to 17.87

### 13 League Tables

The results from all the sections of each QBC are collated into league tables of results. These results are expressed in terms of bus speeds.

League tables are available for each of the time periods surveyed, ie morning peak, off peak inbound, off peak outbound and the afternoon/evening peak. A composite league table is also available showing the results for all time periods.

The league table for the morning peak period is shown in this section as an example. **(Table 10)**

As with the bus speed tables in **Section 11**, the results are colour coded as follows:

- **Yellow** denotes those sections where average speed is less than 5 kilometres per hour which effectively is walking speed
- **Blue** denotes those sections where average speed is greater than 5 but less than 10 kilometres per hour
- **Green** denotes those sections where average speed is greater than 10 but less than the minimum QBC specification speed (ie 20 kilometres per hour less 12% boarding and alighting time)
- White denotes those sections that exceed the QBC specification

The composite league table and those in relation to the off peak and the afternoon/evening peak periods can be obtained from Michael Warnock-Smith of Dublin Transportation Office at the following e-mail address: [michaelw@dto.ie](mailto:michaelw@dto.ie).

Table 10 Morning Peak Period League Table

Quality Bus Corridors - Average Sectional Bus Journey Times & Speeds - AM Peak League Table - November 2002							
Average Journey Time (S)	Average Speed KM/H	Section	Section Length Metres	QBC	Range		Position
					Low KM/H	High KM/H	
362	2.38	Leinster Road West to Harolds Cross Road	214	Rathfarnham	1.73	4.94	74
555	3.21	Rathgar Road to Leinster Road	495	Tallaght	1.95	7.49	73
578	3.52	Camden Street to Stephen Street	565	Rathfarnham	1.29	15.18	72
1198	3.77	Terenure Road East to Rathgar Road	1256	Tallaght	3.03	8.95	71
677	4.29	Rathdown Park to Brighton Road	806	Tallaght	3.64	5.81	70
388	4.43	Clanbrassil Street to South Circular Road	478	Rathfarnham	2.36	12.29	69
118	4.57	Kilmore Road to St Davids Wood	150	Malahide	2.04	20.00	68
390	4.73	Mount Tallant Avenue to Leinster Road West	513	Rathfarnham	2.24	21.72	67
584	5.03	Terenure Road East to Mount Tallant Avenue	816	Rathfarnham	2.14	13.48	66
305	5.88	Ellis Quay to Arran Quay	497	Lucan	3.98	8.32	65
189	6.06	Collins Avenue to Casino Park	318	Malahide	3.84	16.59	64
691	6.66	Capel Street to Tara Street	1278	Blanchardstown	6.43	6.93	63
149	6.69	Rathfarnham Road to Brookvale Road	277	Rathfarnham	4.21	13.85	62
434	6.81	Dame Street to Tara Street	821	Tallaght	5.26	10.30	61
783	6.90	Ratoath Road to Manor Street	1500	Blanchardstown	5.55	12.16	60
265	7.13	Grove Park to Camden Street Lower	525	Tallaght	4.54	11.81	59
499	7.52	Harolds Cross Road to Clanbrassil Street	1043	Rathfarnham	5.52	14.67	58
371	7.54	South Circular Road to Camden Street	777	Rathfarnham	4.91	18.05	57
265	8.08	Parkgate Street to Ellis Quay	595	Lucan	5.01	16.10	56
599	8.20	Cornmarket to Westmoreland Street	1365	North Clondalkin	5.69	10.19	55
341	8.67	Kilmore Road to Collins Avenue	821	Malahide	6.54	13.43	54
177	8.85	Amiens Street to Talbot Street	435	Malahide	5.65	14.24	53
231	9.26	Leinster Road to Canal	594	Tallaght	4.09	20.17	52
644	9.27	Manor Street to Capel Street	1659	Blanchardstown	6.19	14.02	51
552	9.28	Omni Park to Collins Avenue	1423	Swords	6.52	18.10	50
944	9.30	Richmond Road to O'Connell Street	2440	Swords	6.36	11.89	49
948	9.59	Donnybrook to Leeson Street	2525	Stillorgan	6.17	18.55	48
239	9.87	Stephen Street to Westmoreland Street	655	Rathfarnham	6.37	26.50	47
275	9.94	Brookvale Road to Terenure Road East	759	Rathfarnham	5.36	17.07	46
93	10.33	Palmerston to Chapelizod Slip Road	267	Lucan	5.69	22.88	45

Table 10 Morning Peak Period League Table (continued)

Quality Bus Corridors - Average Sectional Bus Speeds - AM Peak League Table - November 2002							
Average Journey Time (S)	Average Speed KM/H	Section	Section Length Metres	QBC	Range		Position
					Low KM/H	High KM/H	
604	10.48	Leeson Street to Fleet Street	1759	Stillorgan	7.91	13.80	44
228	10.59	St Davids Wood to Collins Avenue	671	Malahide	6.08	17.76	43
359	10.71	Mount Brown to Cornmarket	1068	North Clondalkin	8.70	15.08	42
524	11.66	Greencastle Road to St Davids Wood	1682	Malahide	7.83	17.35	41
908	12.41	Oliver Plunkett Road to Foxrock Church	3130	Stillorgan	9.09	19.33	40
640	12.42	Coolmine Road to River Road Roundabout	2208	Blanchardstown	10.36	15.62	39
350	12.47	Oldbridge Road to Fortfield Road	1212	Tallaght	8.14	21.71	38
672	12.56	Con Colbert Road to Ellis Quay (Expresso)	2344	Lucan	9.22	25.19	37
925	12.71	Mount Merrion Avenue to Donnybrook	3267	Stillorgan	10.15	18.64	36
929	13.15	Foxrock Church to Mount Merrion Avenue	3393	Stillorgan	10.29	18.62	35
572	13.20	Oakdown Road to Rathfarnham Road	2098	Rathfarnham	9.21	17.93	34
398	13.86	Greencastle Road to Kilmore Road	1532	Malahide	9.24	21.38	33
281	14.00	Dorset Street Lower to Parnell Square	1093	Finglas	10.78	21.15	32
239	14.32	Conyngham Road to Parkgate Street	951	Lucan	6.96	27.39	31
169	14.33	West of M50 to East of M50	673	Tallaght	12.11	20.71	30
224	15.38	Prospect/Whitworth Road to Dorset Street Lower	957	Finglas	10.73	19.58	29
790	15.79	Casino Park to Talbot Street	3465	Malahide	12.65	20.75	28
1671	16.72	Clonsilla to Blanchardstown Road South via Tower	7763	Blanchardstown	15.05	19.46	27
759	17.24	Swords Main Street to Cloghran Roundabout	3636	Swords	10.78	37.83	26
311	17.73	Collins Avenue to Richmond Road	1532	Swords	11.54	33.03	25
607	17.97	Casino Park to Amiens Street	3030	Malahide	14.52	26.16	24
816	18.00	Chapelizod Slip Road to Conyngham Road	4080	Lucan	14.20	26.90	23
338	18.31	Blanchardstown Road South to Coolmine Road	1719	Blanchardstown	12.18	26.22	22
795	18.52	Priorswood to Greencastle Road via Darndale	4089	Malahide	15.17	24.82	21
604	19.20	Finglas Road to Prospect Road/Whitworth Road	3222	Finglas	14.79	21.48	20
443	19.46	Ashtown Roundabout to Ratoath Road	2395	Blanchardstown	15.53	28.18	19
701	19.96	Cloghran Roundabout to Airport South via Airport	3886	Swords	17.57	22.49	18
198	20.91	Emmet Road to Mount Brown	1150	North Clondalkin	16.76	26.20	17
198	21.54	Clare Hall to Priorswood	1185	Malahide	13.94	33.58	16
388	22.35	Dun Laoghaire to Oliver Plunkett Road	2409	Stillorgan	18.73	29.20	15

Table 10 Morning Peak Period League Table (continued)

Quality Bus Corridors - Average Sectional Bus Speeds - AM Peak League Table - November 2002							
Average Journey Time (S)	Average Speed KM/H	Section	Section Length Metres	QBC	Range		Position
					Low KM/H	High KM/H	
158	22.40	River Road to New River Road	983	Blanchardstown	19.45	28.31	14
210	23.79	Cloghran Roundabout to Airport South (Direct)	1388	Swords	18.23	35.18	13
475	24.45	Tallaght Bypass to Tallaght Main Street	3226	Tallaght	19.36	30.56	12
156	24.78	Blakestown Way to Rear of Town Centre	1074	Blanchardstown	20.57	31.70	11
265	25.13	Tallaght Main Street to West M50	1850	Tallaght	17.85	37.41	10
282	25.86	Foxhunter to West M50	2026	Lucan	19.35	35.75	9
232	26.79	Rear of Town Centre to River Road	1727	Blanchardstown	19.13	40.63	8
483	27.88	Airport South to Omni Park	3741	Swords	19.07	38.81	7
200	28.71	West of M50 to Palmerston	1595	Lucan	24.23	46.68	6
127	40.02	East of M50 to Oldbridge Road	1412	Tallaght	34.54	89.18	5
53	40.43	Fortfield Road to Rathdown Park	595	Tallaght	31.96	61.23	4
293	44.25	Chapelizod Sliproad to Con Colbert Road	3601	Lucan	31.93	53.79	3
158	44.62	New River Road to Ashtown Roundabout	1958	Blanchardstown	29.87	64.66	2
70	51.00	Priorswood to Greencastle Road (Direct)	992	Malahide	37.20	83.01	1

## 14 Graphs

Data from the roadside surveys can be used effectively to produce graphs for all sections of each QBC.

The benefit in producing graphs is that the variations in individual bus operating speeds can be shown pictorially.

The results may help to pinpoint problems in particular sections at specific times.

**Tables 11a to 11v** are examples from each QBC of how the information can be displayed. Results from the morning peak period only are shown in this section, but graphs for all periods are available.

Each graph shows the speed of every individual bus over the section, the average bus journey speed on the section for the survey period, the minimum target bus speed as set out in the QBC Specification and, where available, the average car journey speed on the same section.

The x axis plots the individual bus times at the start of the section.  
The y axis plots bus speed expressed in kilometres per hour.

## **Blanchardstown QBC**

**Tables 11a, 11b and 11c** are examples of the results from **Blanchardstown QBC**.

**Table 11a** shows the section from New River Road to Ashtown Roundabout, a distance of 1958 metres with continuous bus priority.

- All buses comfortably exceed the QBC Spec
- Bus average speed exceeds car average speed
- The slowest bus operates at 29.87 kilometres per hour

**Table 11b** shows the section from Ashtown Roundabout to Ratoath Road, a distance of 2395 metres. Although this section has bus priority of 2075 metres, it is not continuous.

- Some buses operate at speeds below the QBC Spec.
- Bus average speed is marginally in excess of car average speed

**Table 11c** shows the section from Ratoath Road to Manor Street, a distance of 1500 metres of which 120 metres has bus priority.

- Bus and car average speed are virtually identical
- Bus operating speeds are consistently low between 0750 and 0910 with all buses experiencing congestion

Table 11a Blanchardstown QBC

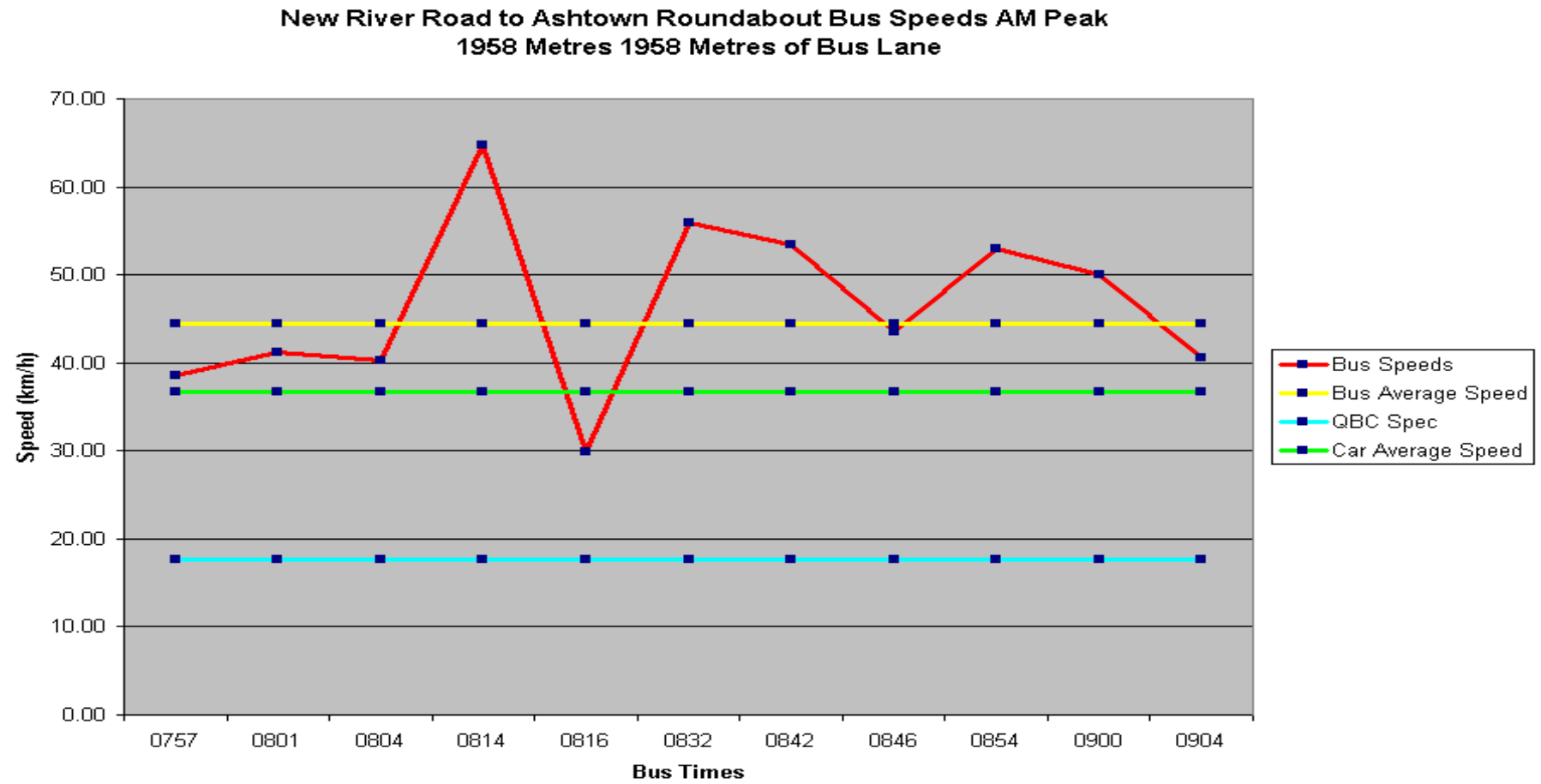




Table 11b Blanchardstown QBC

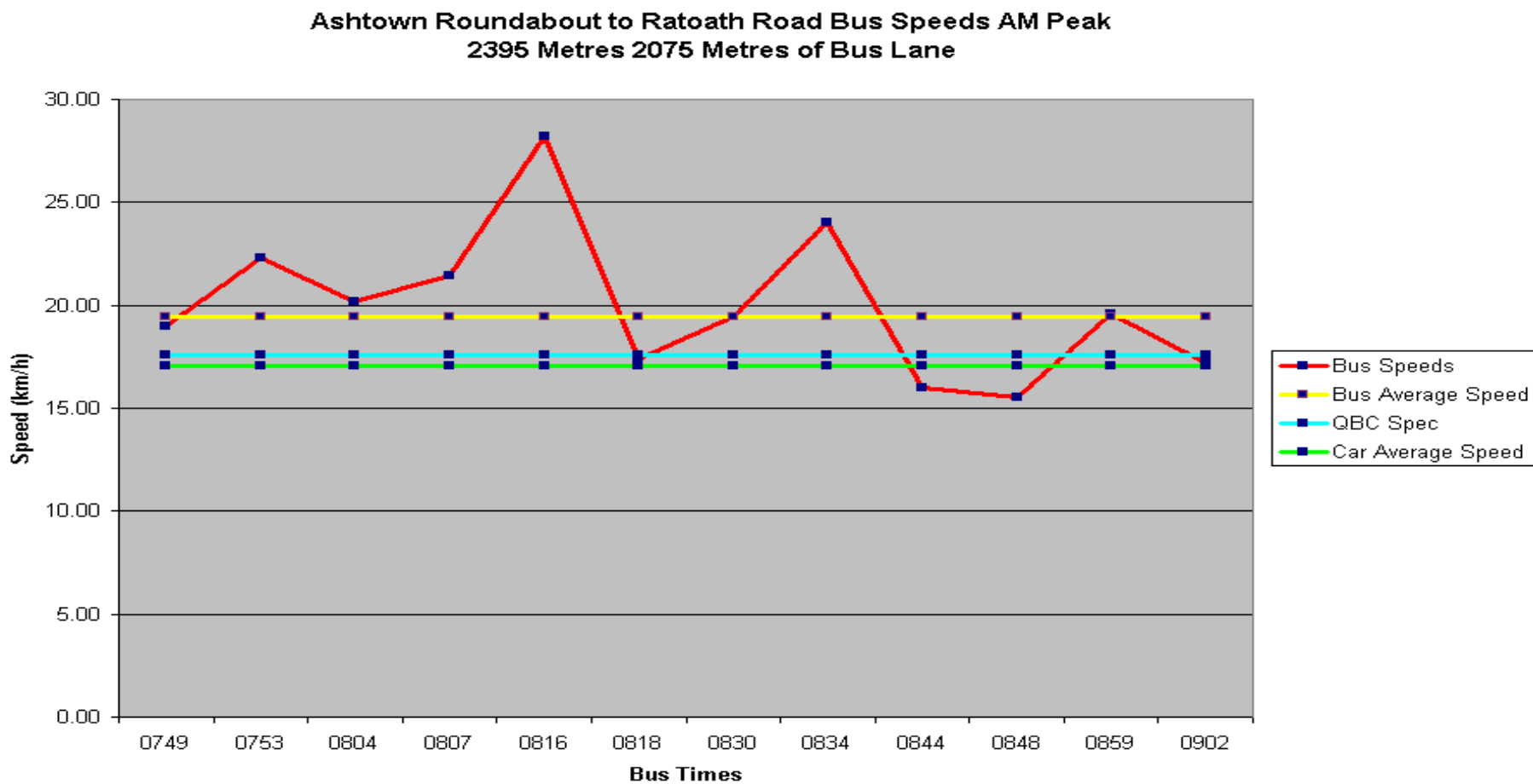
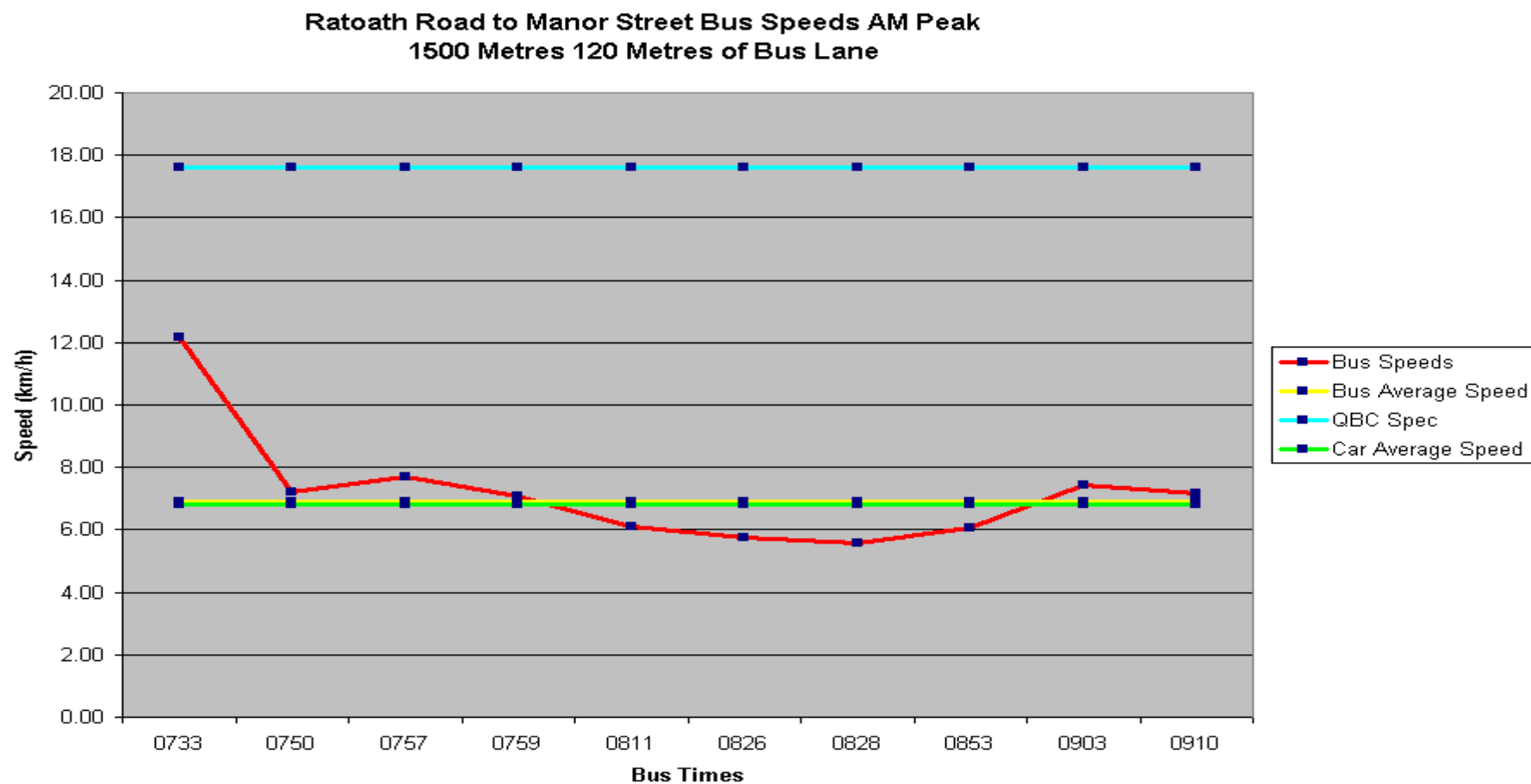


Table 11c Blanchardstown QBC

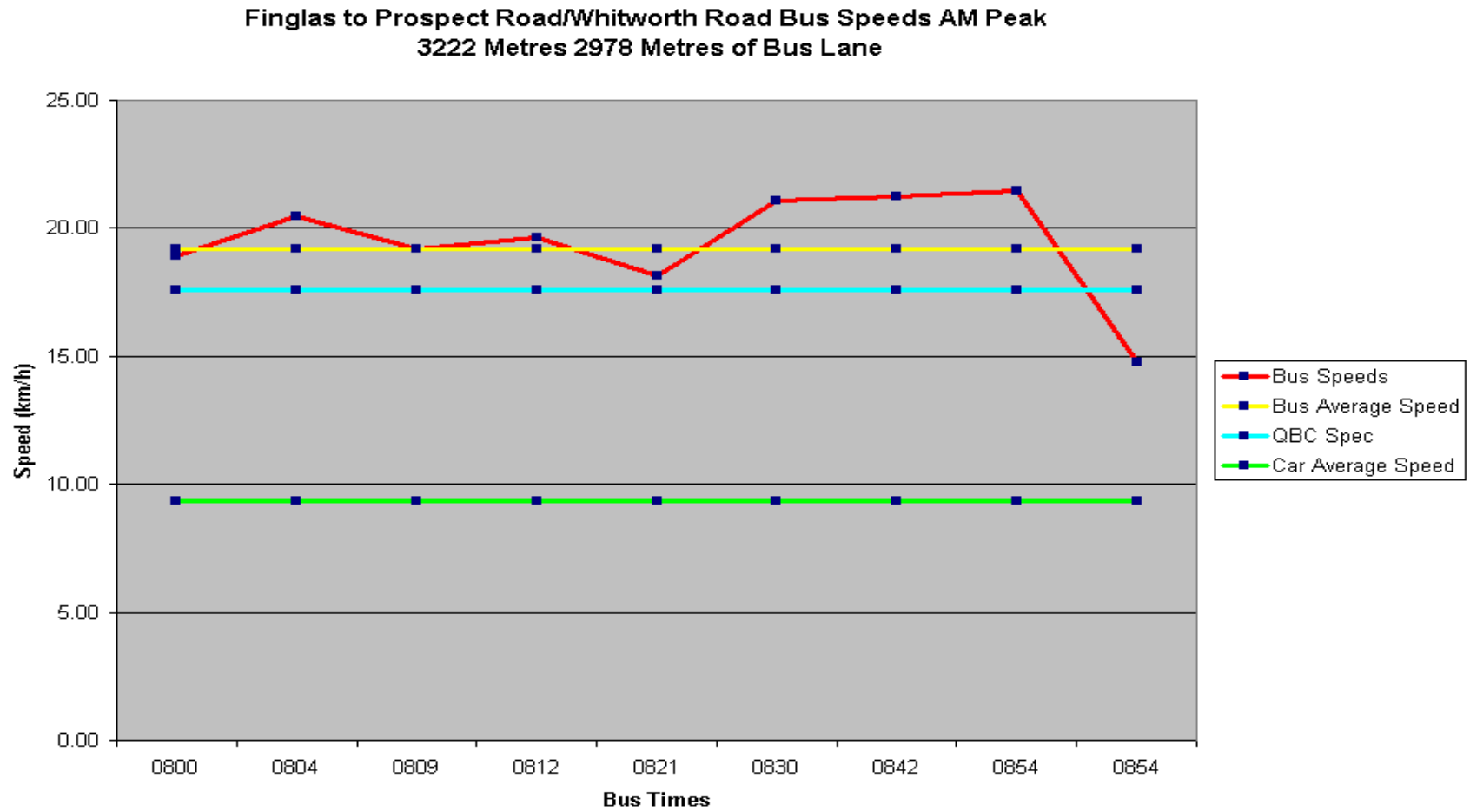


## **Finglas QBC**

**Table 11d** shows the section from Finglas Road with its junction with Main Street to Prospect Road prior to the junction with Whitworth Road, a distance of 3222 metres with bus priority amounting to 2978 metres.

- Bus average speed exceeds the QBC specification
- All buses except one at 0854 operate at speeds in excess of the QBC Spec
- Bus average speed is more than twice as high as car average speed

Table 11d Finglas QBC



## Lucan QBC

Tables 11e, 11f and 11g are examples of the results from Lucan QBC.

Table 11e shows the section from the Foxhunter public house to West of the M50 interchange, a distance of 2026 metres with continuous bus priority.

- Bus average speed is well in excess of the QBC Spec
- All buses operate at speeds in excess of the QBC Spec
- The slowest bus operates at 19.35 kilometres per hour at 0811
- Bus average speed is more than twice as high as car average speed

Table 11f shows the section from Con Colbert Road to Ellis Quay, a distance of 2344 metres with bus priority on the North Quays amounting to 393 metres.

- Bus average speed is well below the QBC Spec
- Bus and car average speeds are very similar
- Bus operating speeds improve after 0850

Table 11g shows the next section from Ellis Quay to Arran Quay, a distance of 497 metres without bus priority

- Bus and car average speeds are very similar and just above walking pace
- The range of bus operating speeds is very low with the fastest bus operating at 8.32 kilometres per hour at 0843

Table 11e Lucan QBC

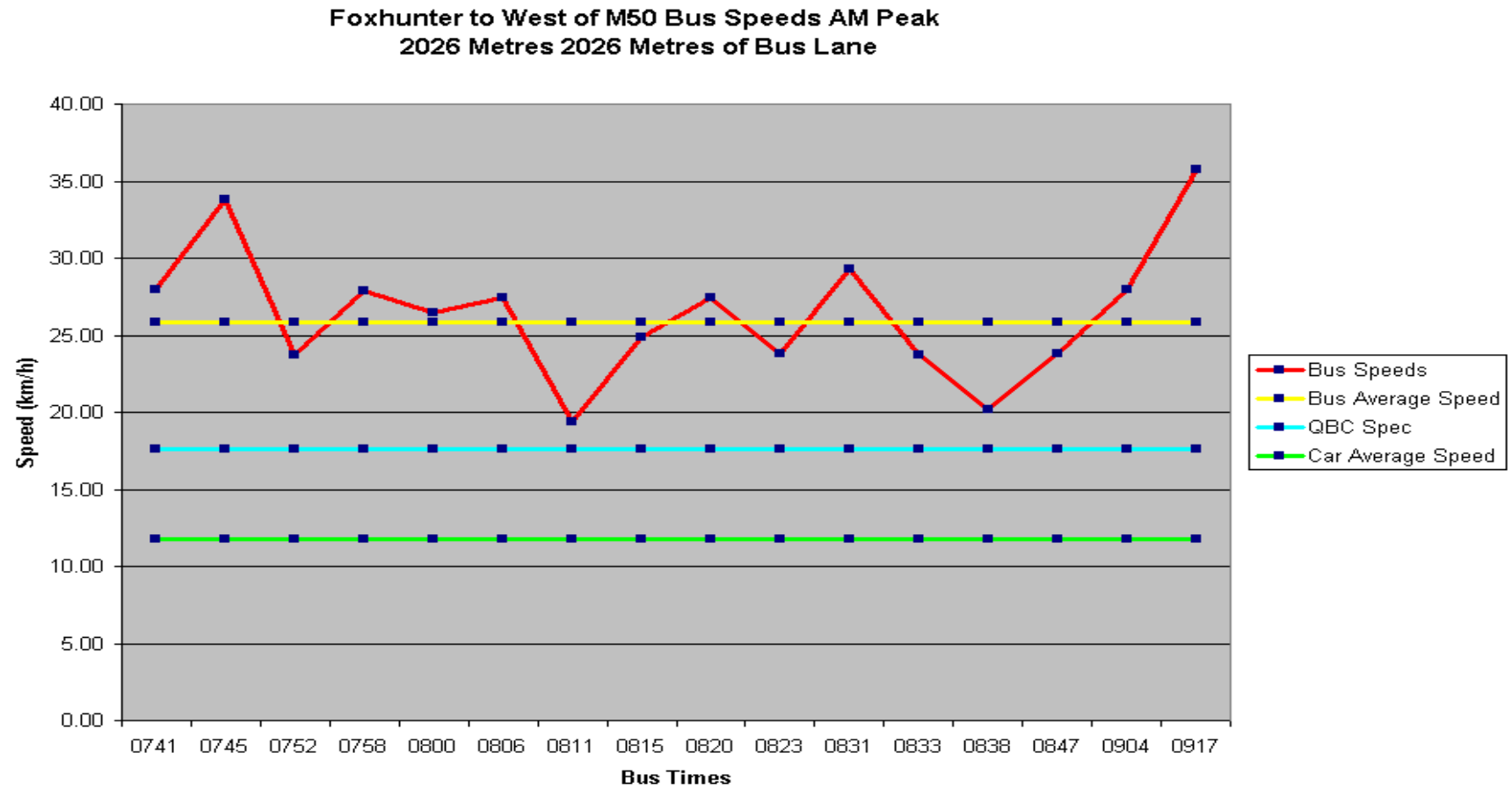


Table 11f Lucan QBC

Con Colbert Road to Ellis Quay Bus Speeds AM Peak  
2344 Metres 393 Metres of Bus Lane

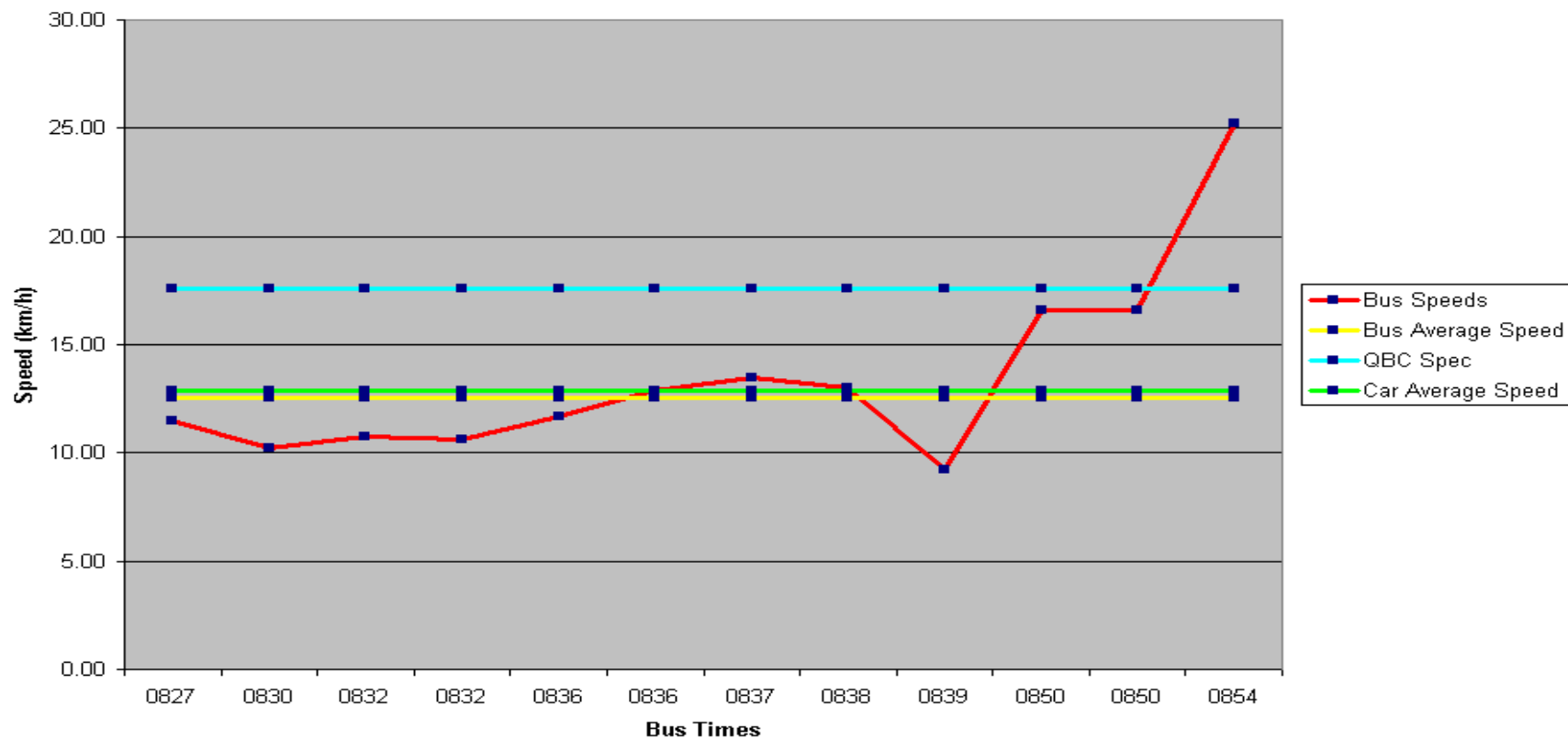
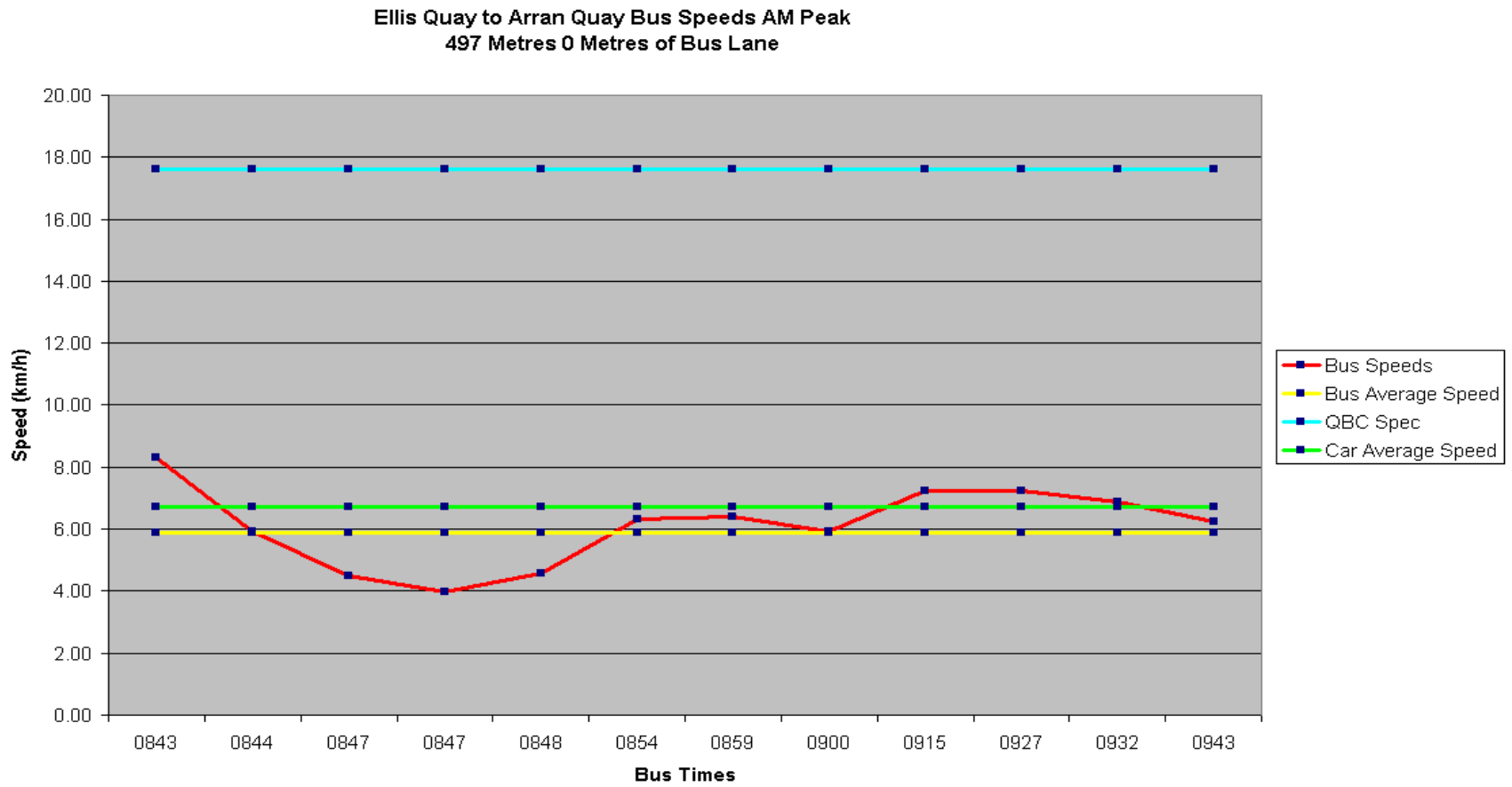


Table 11g Lucan QBC





## **Malahide QBC**

**Tables 11h, 11i and 11j** are examples of the results from Malahide QBC.

**Table 11h** shows the section from St Davids Wood to Collins Avenue, a distance of 671 metres with bus priority of 601 metres.

- Despite the presence of 90% bus priority on this section bus average speed is well below QBC Spec
- Bus operating speeds are very variable
- Bus average speed is more than twice car average speed

**Table 11i** shows the section from Collins Avenue to Casino Park, a distance of 318 metres without bus priority.

- Both bus and car average speeds are very similar and hovering around walking pace
- Apart from the exception of one bus operating at 16.59 kilometres per hour at 0800 the next fastest bus operates at 8.67 kilometres per hour at 0858

**Table 11j** shows the section from Casino Park to Amiens Street, a distance of 3030 metres with bus priority of 2583 metres.

- Bus average speed exceed the QBC Spec
- Bus average speed is significantly higher than car average speed
- The slowest bus operates at 14.52 kilometres per hour at 0834

Table 11h Malahide QBC

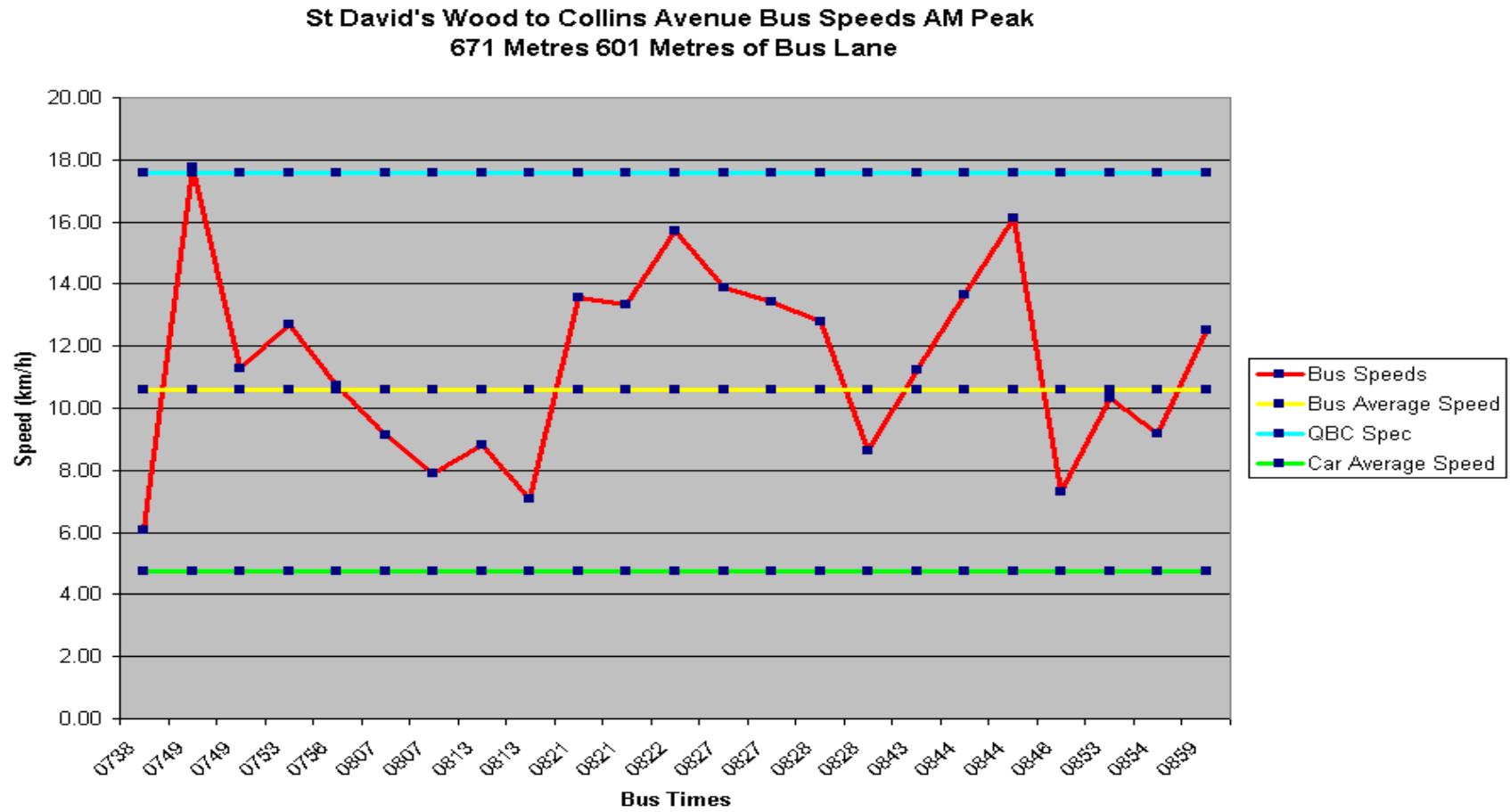


Table 11i Malahide QBC

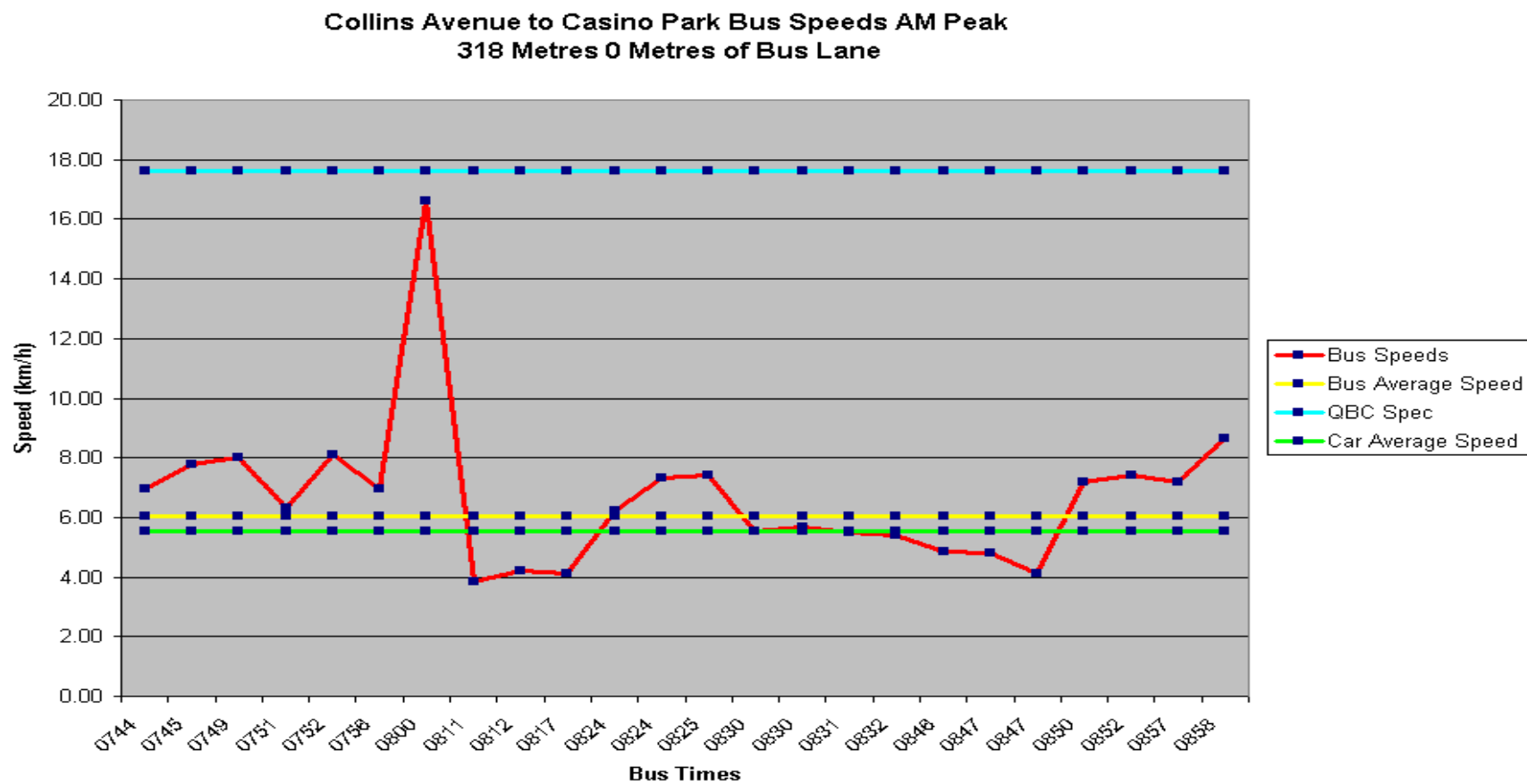
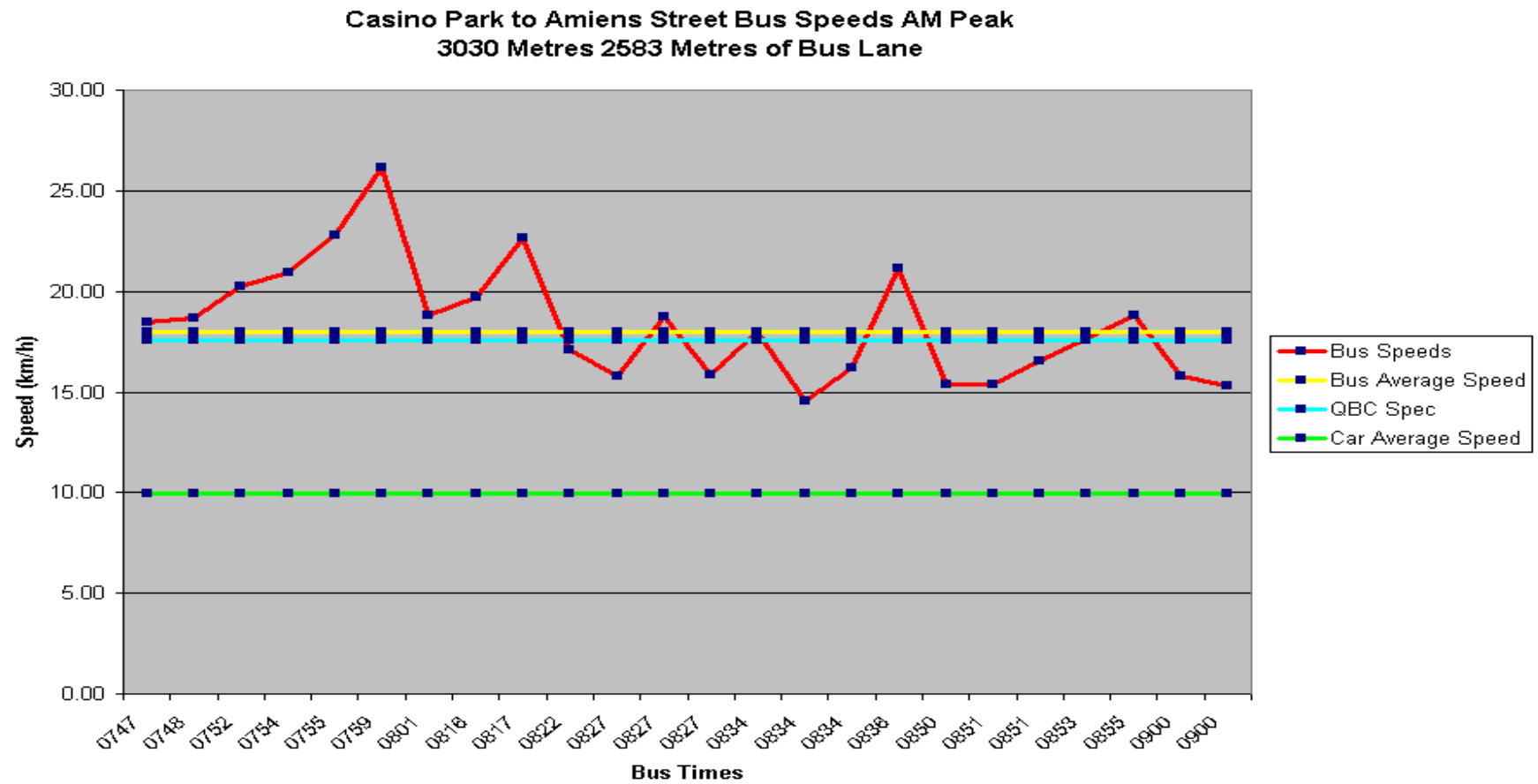


Table 11j Malahide QBC

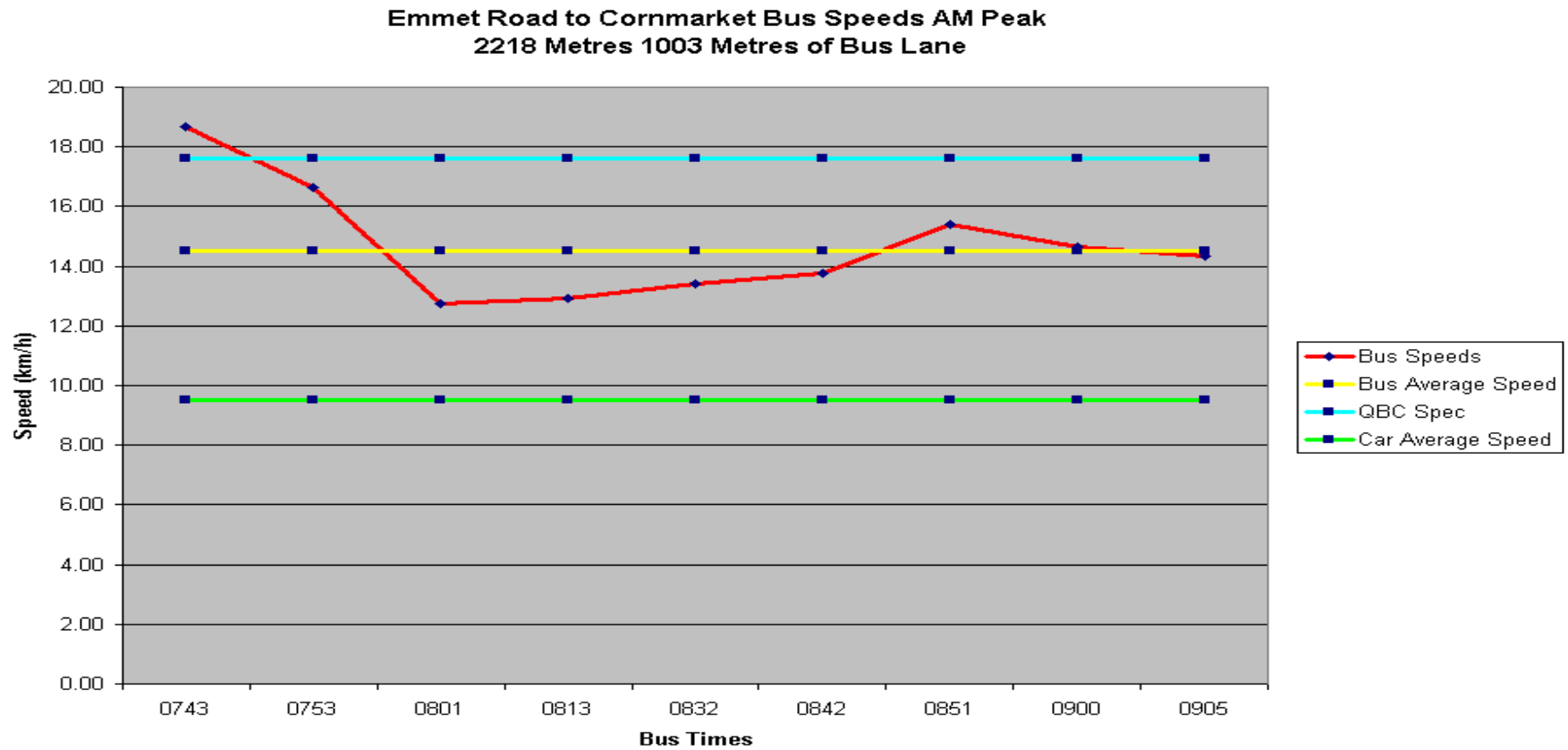


## North Clondalkin QBC

**Table 11k** shows the results from the section from Emmet Road to Cornmarket, a distance of 2218 metres of which bus priority amounts to 1003 metres.

- Bus average speed is slightly lower than the QBC Spec
- Bus average speed comfortably exceeds car average speed

Table 11k North Clondalkin QBC



## Rathfarnham QBC

Tables 11l to 11n are examples of the results from Rathfarnham QBC.

**Table 11l** shows the section from Mount Tallant Avenue to Leinster Road West, a distance of 513 metres with 417 metres of bus priority.

- Despite the presence of 80% bus priority bus average speed is very low
- The presence of the bus lane helps reduce car average speed to a virtual standstill
- Between 0808 and 0921 the fastest bus operates at 6.26 kilometres per hour

**Table 11m** shows the section from Leinster Road West to Harolds Cross Road, a distance of 214 metres without any bus priority.

- Both buses and cars are at a virtual standstill throughout the period
- The fastest bus operates at 4.94 kilometres per hour at 0739

**Table 11n** shows the section from Harolds Cross Road to Clanbrassil Street, a distance of 1043 metres of which 845 metres has bus priority.

- Bus average speed comfortably exceeds car average speed but all traffic between 0813 and 0912 experiences severe congestion
- The fastest bus operates at 14.67 kilometres per hour at 0742

Table 11| Rathfarnham QBC

Mount Tallant Avenue to Leinster Road West Bus Speeds  
AM Peak 513 Metres 417 Metres of Bus Lane

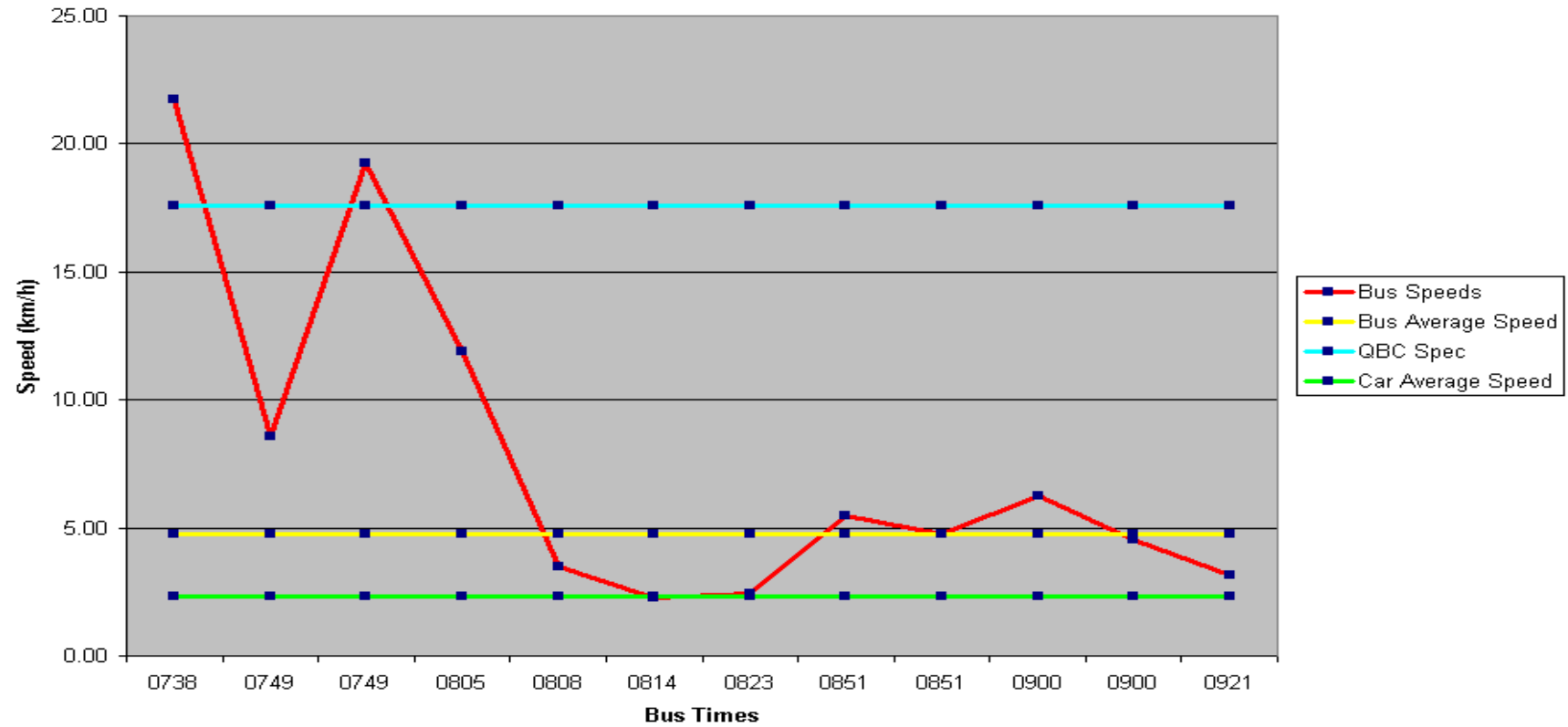
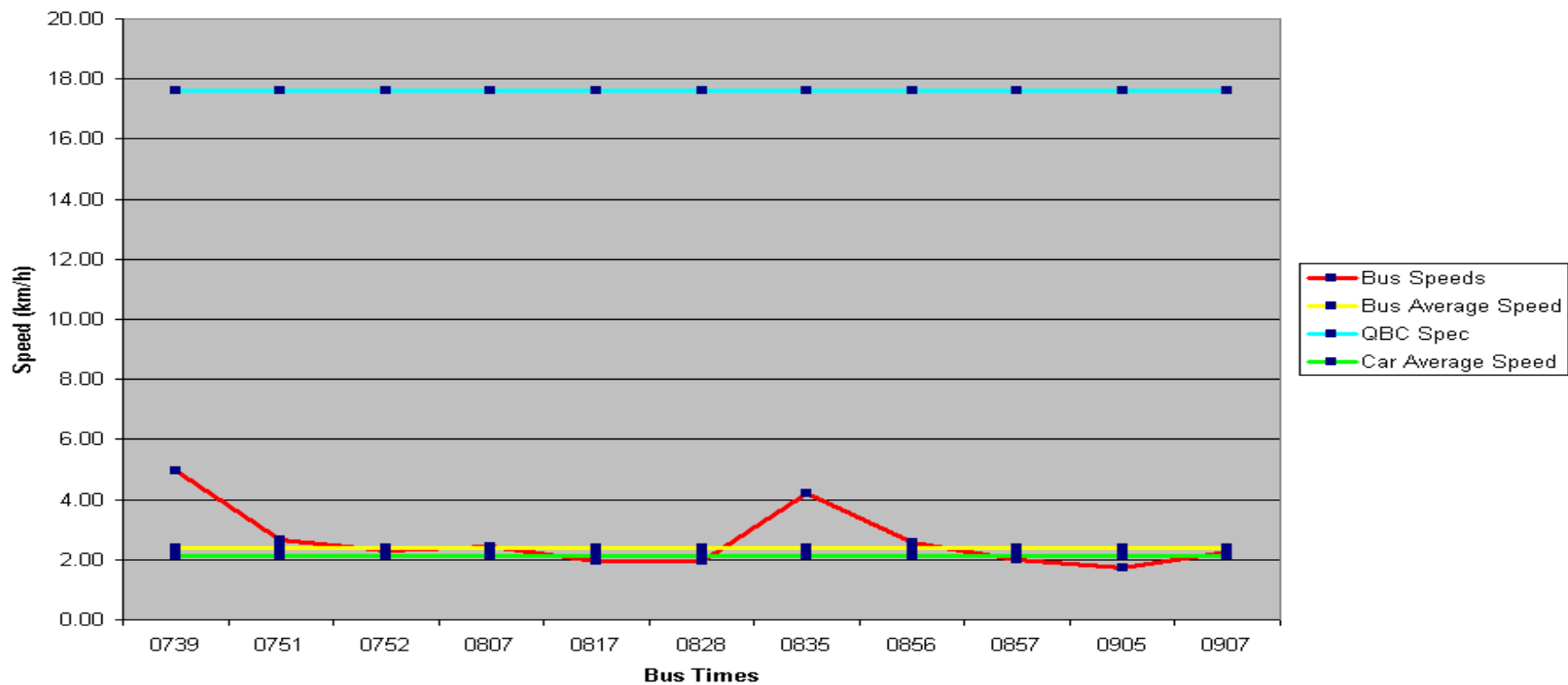


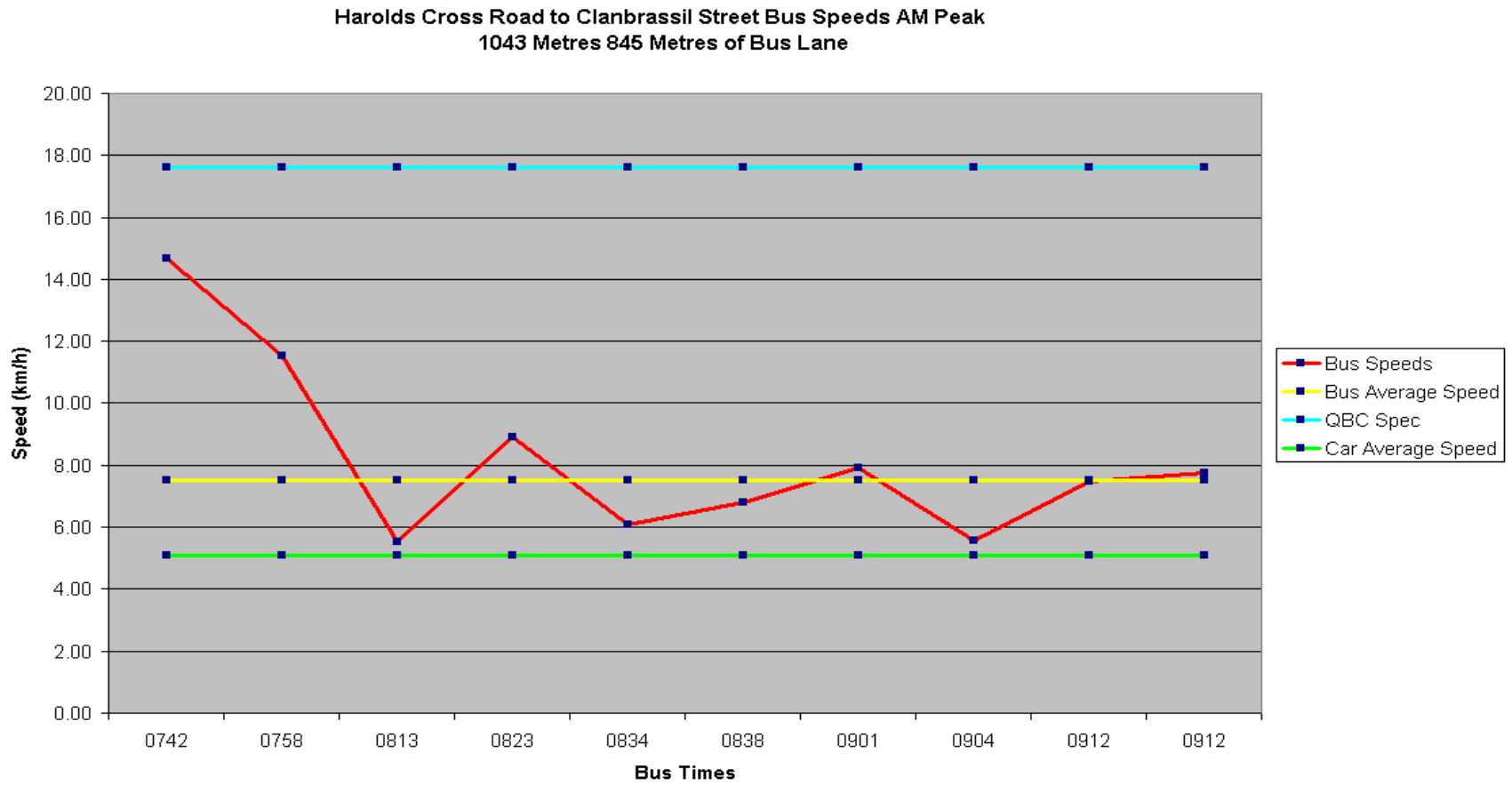


Table 11m Rathfarnham QBC

Leinster Road West to Harolds Cross Road Bus Speeds AM Peak  
214 Metres 0 Metres of Bus Lane



**Table 11n Rathfarnham QBC**



## Stillorgan QBC

**Tables 11o** and **11p** are examples of the results from Stillorgan QBC.

**Table 11o** shows the results for the section from Foxrock Church to Mount Merrion Avenue, a distance of 3393 metres with continuous bus priority.

- Bus average speed is well below the QBC Spec
- Bus average speed exceeds car average speed almost threefold
- The presence of 100% bus priority protects the bus from the worst of the congestion

**Table 11p** shows the same section with individual car times being plotted.

- Car average journey time is at walking pace
- The fastest car operates at 8.8 kilometres per hour at 0802
- The slowest car operates at 3.06 kilometres per hour at 0817

Table 11o Stillorgan QBC

Foxrock Church to Mount Merrion Avenue Bus Speeds AM Peak  
3393 Metres 3393 Metres of Bus Lane

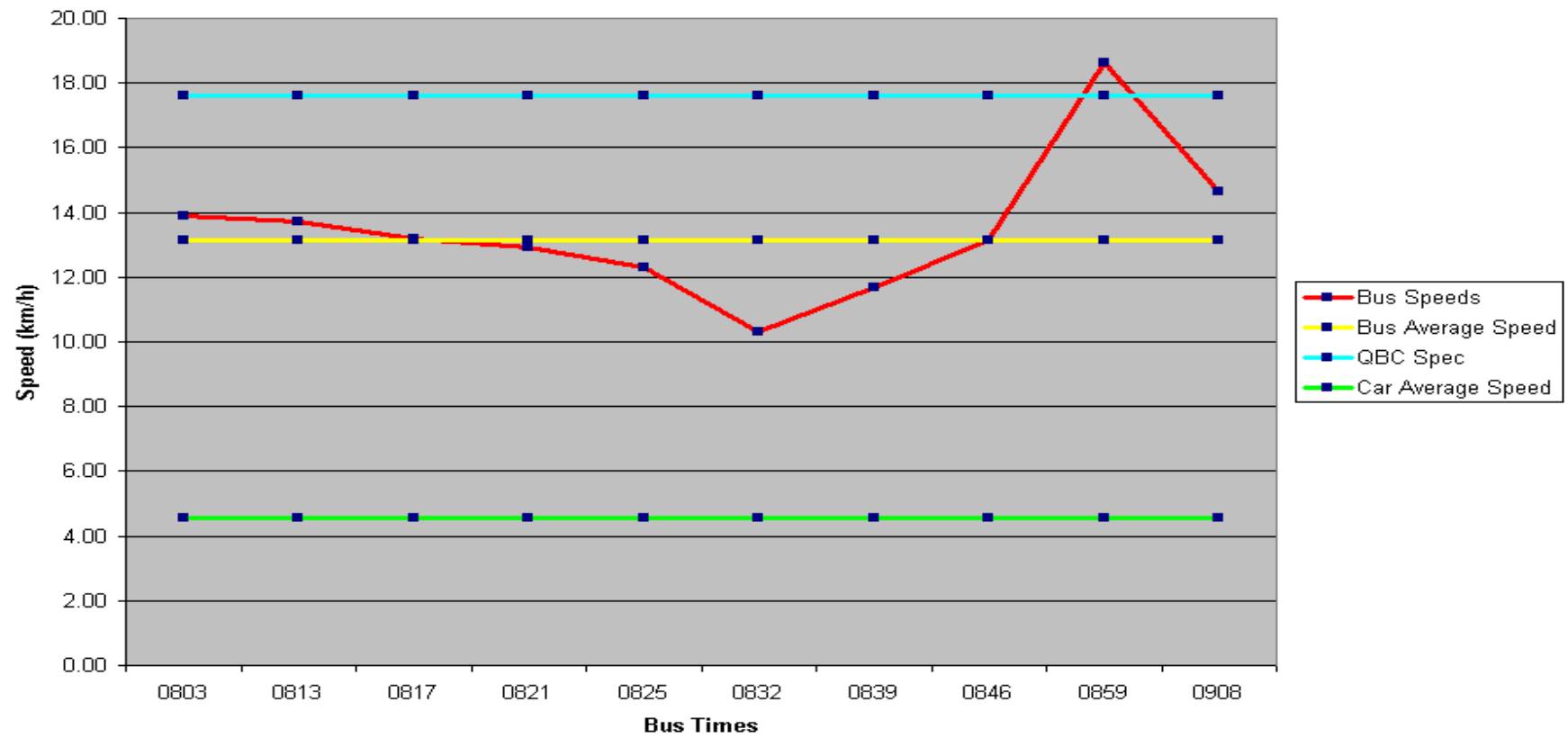
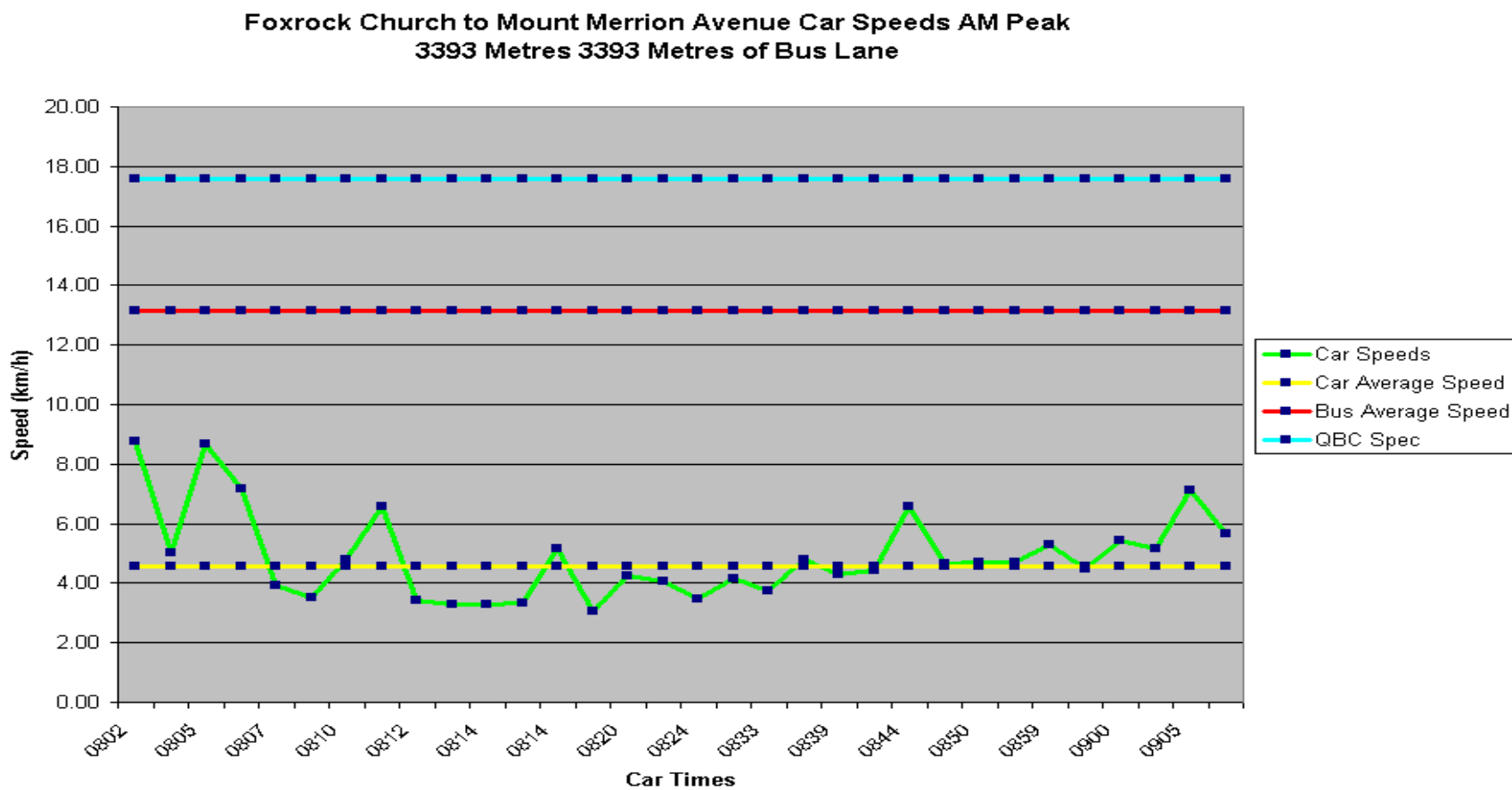


Table 11p Stillorgan QBC



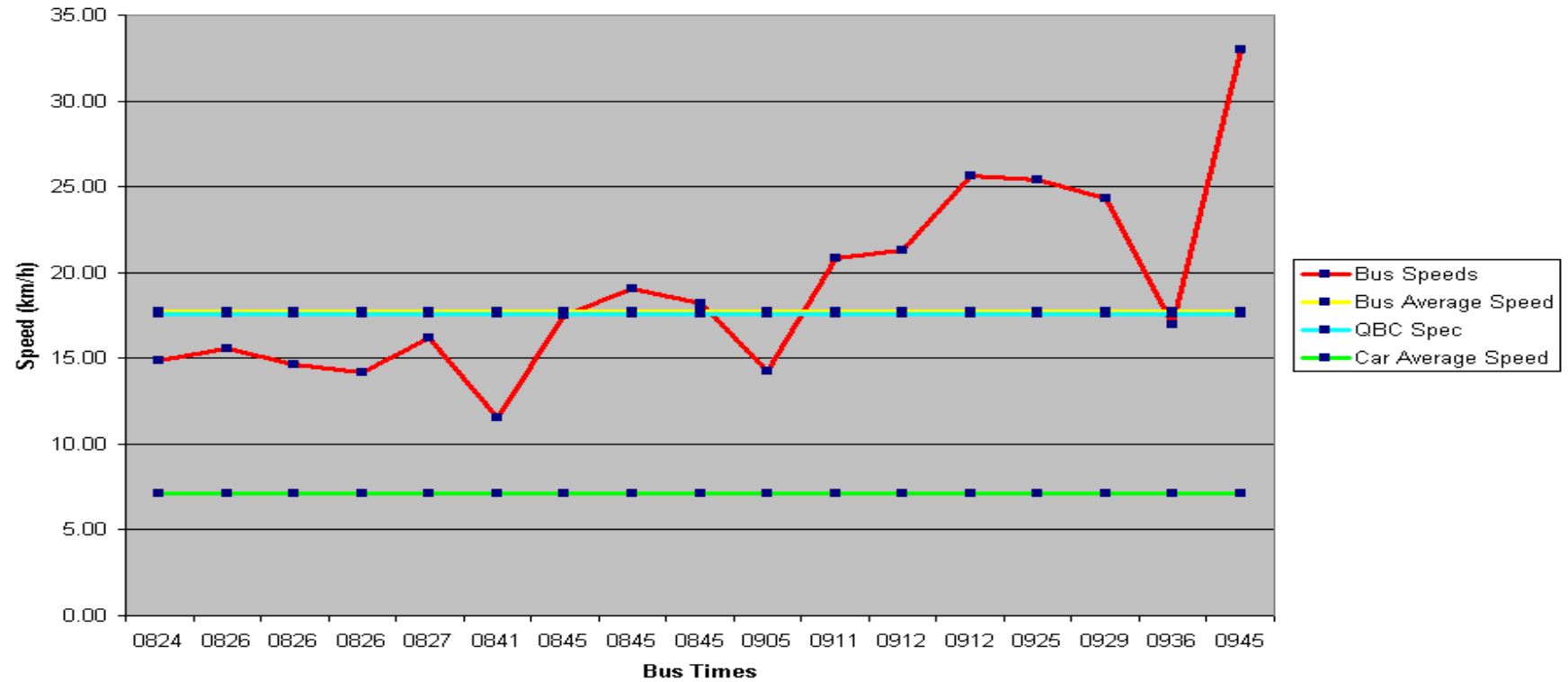
## Swords QBC

**Table 11r** shows the results for the section from Collins Avenue to Richmond Road, a distance of 1532 metres of which 1183 metres has bus priority.

- Bus average speed is slightly in excess of the QBC Spec but most buses operate at speeds slightly lower than the QBC Spec prior to 0900
- Bus average speed is more than twice the average speed for cars

Table 11r Swords QBC

Collins Avenue to Richmond Road Bus Speeds AM Peak  
1532 Metres 1183 Metres of Bus Lane



## Tallaght QBC

**Tables 11s** and **11t** are examples from the results for Tallaght QBC.

**Table 11s** shows the results for the section from Terenure Road East to Rathgar Road, a distance of 1256 metres with 1034 metres of bus priority.

- Although bus average speed exceeds car average speed, both are at walking pace
- The fastest bus operates at 8.95 kilometres per hour at 0809

**Table 11t** shows the results for the section from Rathgar Road to Leinster Road, a distance of 495 metres without bus priority.

- The fastest bus operates at 7.49 kilometres per hour at 0752
- The slowest bus operates at 1.95 kilometres per hour at 0825



Table 11s Tallaght QBC

Terenure Road East to Rathgar Road Bus Speeds AM Peak  
1256 Metres 1034 Metres of Bus Lane

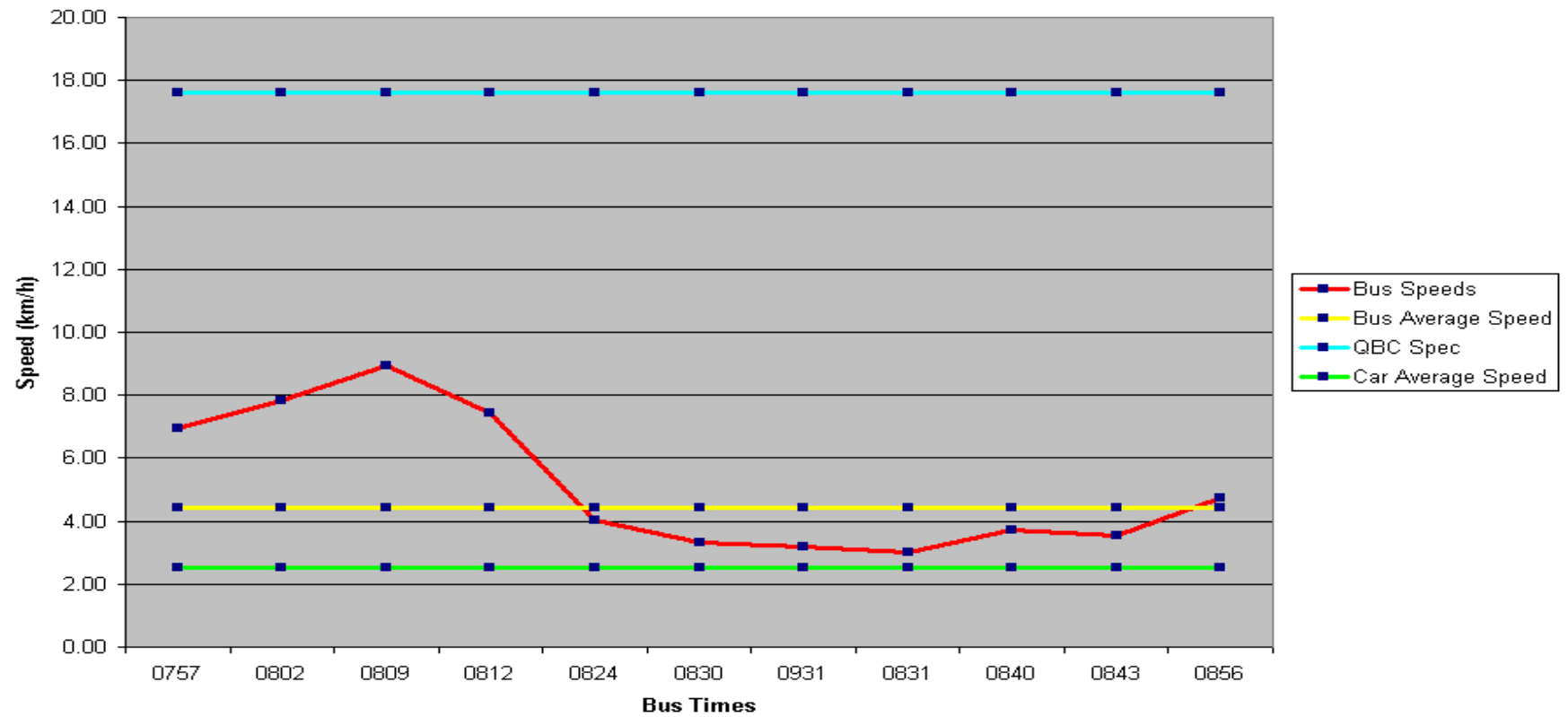
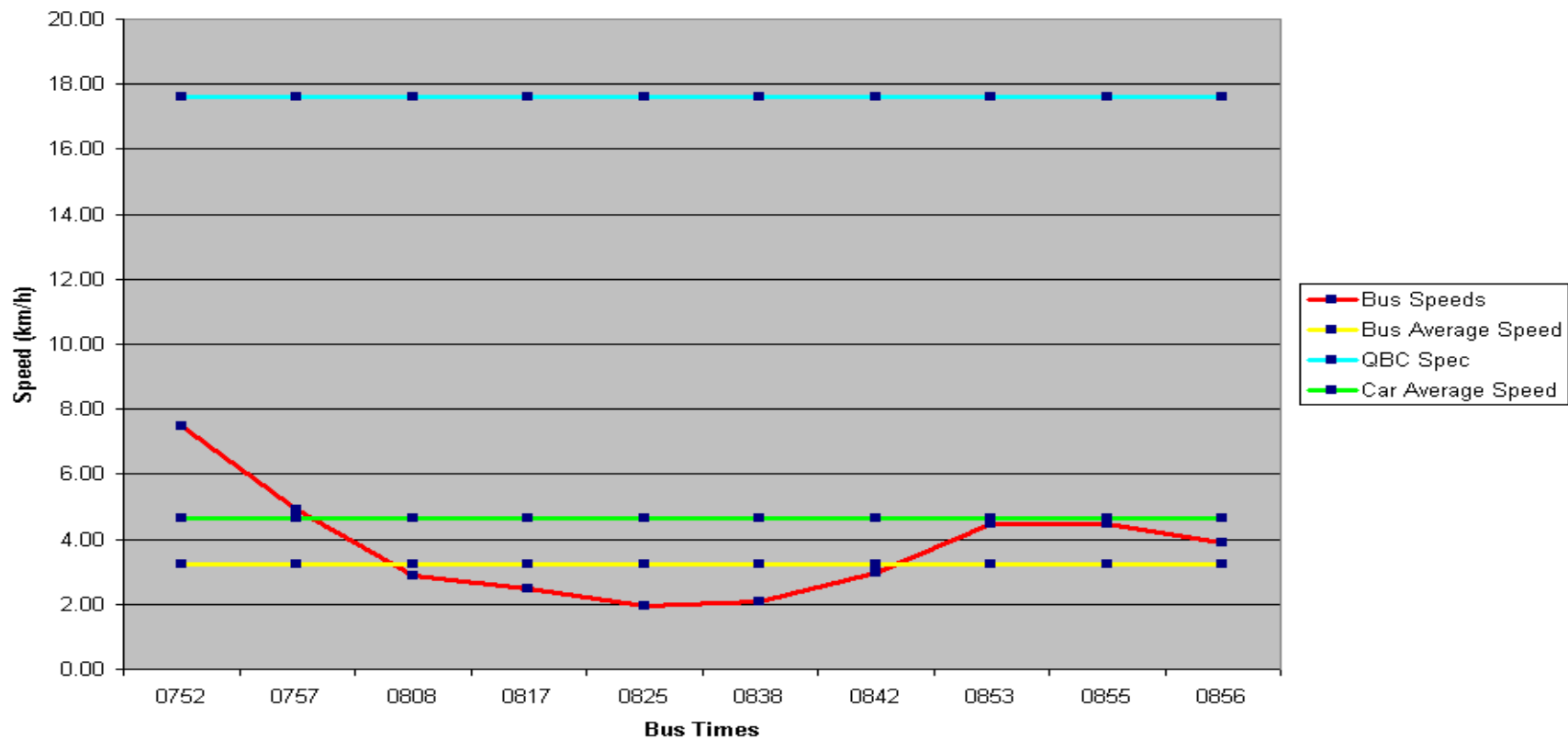


Table 11t Tallaght QBC

Rathgar Road to Leinster Road Bus Speeds AM Peak  
495 Metres 0 Metres of Bus Lane



## 15 Pre QBC Reports

An important element of the QBC monitoring process in measuring the effectiveness of bus priority measures is to gather data prior to implementation to enable performance to be measured on a before and after basis.

In November 2002 the following corridors were monitored on a “pre QBC” basis:

**Rock Road QBC** Sallynoggin to City Centre via Dun Laoghaire, Blackrock, Rock Road and Merrion Road

**Greenhills QBC** Main Street Tallaght to City Centre via Greenhills Road & Crumlin Road

In this report we will look at the results from Rock Road QBC.

Information on Greenhills QBCs can be obtained from Michael Warnock-Smith of Dublin Transportation Office. Please e-mail [michaelw@dto.ie](mailto:michaelw@dto.ie).

## 15.1 Rock Road QBC

Data from the pre QBC monitoring exercise is available as follows:

- **Table 12a** Final Report
- **Table 12b** Sectional bus and car journey times
- **Table 12c** Sectional bus speeds
- **Table 12d** Sample graph

Table 12a Rock Road Pre QBC Final Report

QUALITY BUS CORRIDOR MONITORING ANNUAL REPORT ROCK ROAD - PRE QBC NOVEMBER 2002				
A	INFRASTRUCTURE OBJECTIVES	PERFORMANCE INDICATORS		NOTES
1	QBC starts on regional or higher classification road	Start Point	End Point	
		N/A	N/A	
2	Bus services to have priority access to QBC from lower classification roads	No.of signalised jcts	% prioritised	
		N/K	N/K	
3	Bus journey speeds to be 20kph minimum	Average journey speeds		Blackrock to Merrion Square
		AM Peak Inbound		
		<b>8.78 km/h</b>		
		Off Peak Inbound		
	Blackrock to Merrion Square	<b>18.15 km/h</b>		Blackrock to Merrion Square
	Merrion Square to Blackrock	<b>14.11 km/h</b>		Merrion Square to Blackrock
3a	Bus journey speeds to increase by 25% pre and post QBC implementation	Pre QBC average journey speeds		Merrion Square to Blackrock
		AM Peak Inbound	Off Peak Inbound	
		<b>8.78 km/h</b>	<b>18.15 km/h</b>	
		PM Peak Outbound		
		<b>14.11 km/h</b>		
		% increase		
AM Peak	Off peak			
<b>N/A</b>	<b>N/A</b>			
	PM Peak			
<b>N/A</b>				

QUALITY BUS CORRIDOR MONITORING ANNUAL REPORT ROCK ROAD - PRE QBC NOVEMBER 2002						
A	INFRASTRUCTURE OBJECTIVES		PERFORMANCE INDICATORS		NOTES	
4	Corridor to have segregated bus lanes where physically feasible		% Segregated		% Non Segregated	
			Inbound	Outbound	Inbound	Outbound
			<b>13.54%</b>	<b>15.70%</b>	<b>86.46%</b>	<b>84.30%</b>
5	Bus Journey Times (Average)	AM Peak Inbound	<b>AM Peak</b>		Blackrock to Merrion Square	
	<b>Blackrock to Merrion Square</b>		<b>41:59</b>			
5	Bus Journey Times (Average)	Off Peak Inbound	<b>Off Peak</b>		Blackrock to Merrion Square	
	<b>Blackrock to Merrion Square</b>		<b>20:18</b>			
5	Bus Journey Times (Average)	PM Peak Outbound	<b>PM Peak</b>		Merrion Square to Blackrock	
	<b>Merrion Square to Blackrock</b>		<b>25:57</b>			
5	Comparable Bus v Car Journey Times (Average)	AM Peak Inbound	<b>Bus</b> AM Peak	<b>Car</b> AM Peak	Blackrock to Merrion Square	
	<b>Blackrock to Merrion Square</b>		<b>41:59</b>	<b>39:57</b>		
5	Comparable Bus v Car Journey Times (Average)	Off Peak Inbound	<b>Bus</b> Off Peak	<b>Car</b> Off Peak	Blackrock to Merrion Square	
	<b>Blackrock to Merrion Square</b>		<b>20:18</b>	<b>13:18</b>		
5	Comparable Bus v Car Journey Times (Average)	PM Peak Outbound	<b>Bus</b> PM Peak	<b>Car</b> PM Peak	Merrion Square to Blackrock	
	<b>Merrion Square to Blackrock</b>		<b>25:57</b>	<b>20:12</b>		

QUALITY BUS CORRIDOR MONITORING ANNUAL REPORT ROCK ROAD - PRE QBC NOVEMBER 2002								
A	INFRASTRUCTURE OBJECTIVES		PERFORMANCE INDICATORS				NOTES	
5	Bus Sectional Journey Times (Range)	AM Peak	AM Peak					
			Low		High			
	<b>Blackrock to Merrion Square</b>		<b>26:58</b>	<b>57:41</b>			<b>Blackrock to Merrion Square</b>	
5	Bus Sectional Journey Times (Range)	Off Peak	Off Peak					
			Low		High			
	<b>Blackrock to Merrion square</b>		<b>19:38</b>	<b>20:58</b>			<b>Blackrock to Merrion Square</b>	
5	Bus Sectional Journey Times (Range)	PM Peak	PM Peak					
			Low		High			
	<b>Merrion Square to Blackrock</b>		<b>18:46</b>	<b>35:22</b>			<b>Merrion Square to Blackrock</b>	
5	Comparable Bus v Car Journey Times (Range)	AM Peak	Bus		Car			
			AM Peak		AM Peak			
			Low	High	Low	High		
	<b>Blackrock to Merrion Square</b>		<b>26:58</b>	<b>57:41</b>	<b>25:31</b>	<b>52:50</b>	<b>Blackrock to Merrion Square</b>	
5	Comparable Bus v Car Journey Times (Range)	Off Peak	Bus		Car			
			Off Peak		Off Peak			
			Low	High	Low	High		
	<b>Blackrock to Merrion Square</b>		<b>19:38</b>	<b>20:58</b>	<b>11:20</b>	<b>17:40</b>	<b>Blackrock to Merrion Square</b>	

**QUALITY BUS CORRIDOR MONITORING ANNUAL REPORT  
ROCK ROAD - PRE QBC  
NOVEMBER 2002**

A	INFRASTRUCTURE OBJECTIVES		PERFORMANCE INDICATORS				NOTES
5	Comparable Bus v Car Journey Times (Range)	PM Peak	Bus		Car		Merrion Square to Blackrock
			PM Peak		PM Peak		
	Low	High	Low	High			
	<b>Merrion Square to Blackrock</b>		<b>18:46</b>	<b>35:22</b>	<b>12:10</b>	<b>28:53</b>	
6	Traffic Management Measures to support QBC		No. of Signalised Jcts		% Prioritised		
			<b>36</b>	Inbound	<b>0%</b>		
			<b>30</b>	Outbound			
7	Bus Lanes to operate for 12 hours (0700 to 1900)		% Peak Hours only		% 12 hour		
			<b>33%</b>		<b>30%</b>		
			% 24 hour		% 7-10 & 12-19		
			<b>0%</b>		<b>37%</b>		
7a	Bus Lanes to be clearly defined		% surface marked		% signed		
			<b>N/K</b>		<b>N/K</b>		
8	Bus stops to be located to minimise walk times		Average distance to Ped X		Maximum distance to Ped X		
			<b>110m</b>		<b>492m</b>		



**QUALITY BUS CORRIDOR MONITORING ANNUAL REPORT  
ROCK ROAD - PRE QBC  
NOVEMBER 2002**

A	INFRASTRUCTURE OBJECTIVES	PERFORMANCE INDICATORS		NOTES
9	High quality waiting areas at all high usage stops to include shelters, level platforms, seating, and additional facilities eg cycle parking, telephones & ticket vending m/c's	Total Number of bus shelters		Total Number of bus stops
		<b>35</b>		<b>98</b>
		% with lighting	% with seating	% bus shelters
		<b>94%</b>	<b>20%</b>	
		% with telephones	% with ticket vending	
		<b>14%</b>	<b>0%</b>	
		% with cycle parking	Range of cycle spaces	
		<b>8%</b>	<b>02-Oct</b>	
% level platforms	% fully accessible			
<b>5%</b>	<b>5%</b>			
10	Passenger Information	% shelters with RTPI	% working	% bus shelters
10a	Real Time Passenger Information at high usage stops	<b>0%</b>	<b>0%</b>	
10b	Fixed Information at bus stops eg route & network maps & timetables	% timetables	% route maps	% bus stops
		<b>33%</b>	<b>0%</b>	
		% network maps	% fares information	
		<b>0%</b>	<b>1%</b>	

**QUALITY BUS CORRIDOR MONITORING ANNUAL REPORT  
ROCK ROAD - PRE QBC  
NOVEMBER 2002**

<b>B</b>	<b>SERVICE OBJECTIVES</b>	<b>PERFORMANCE INDICATORS</b>		<b>NOTES</b>
1	Passenger Wait Times			
1a	Average Peak Wait Time	Target	Actual	
		<b>3 minutes</b>	<b>8:09</b>	
1b	Average Peak Excess Wait Time	Target	Actual	
		<b>2 minutes</b>	<b>5:09</b>	
1c	Average Off Peak Wait Time	Target	Actual	
		<b>4 minutes</b>	<b>N/K</b>	
1d	Average Off Peak Excess Wait Time	Target	Actual	
		<b>2 minutes</b>	<b>N/K</b>	
2	Boarding & Alighting time / % of total journey time	AM Peak	Off peak	
		<b>N/K</b>	<b>N/K</b>	
<b>C</b>	<b>FLEET OBJECTIVES</b>	<b>PERFORMANCE INDICATORS</b>		<b>NOTES</b>
2	Average Fleet age	Average Fleet age		
		<b>N/K</b>		
2a	Maximum Fleet age	Maximum Fleet age		
		<b>N/K</b>		
3	QBC to be operated by uniformed staff	% staff uniformed		
		<b>N/K</b>		
4	QBC to be operated by low floor buses	% of low floor buses		
		<b>N/K</b>		

**QUALITY BUS CORRIDOR MONITORING ANNUAL REPORT  
ROCK ROAD - PRE QBC  
NOVEMBER 2002**

C	FLEET OBJECTIVES	PERFORMANCE INDICATORS	NOTES
5	QBC to be operated by branded vehicles	% of branded vehicles	City Swift
		<b>N/K</b>	

D	NETWORK PERFORMANCE	PERFORMANCE INDICATORS				NOTES
1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	% Mode share				November 2002 Cordon Count includes all bus passengers
Car		Bus				
Nov-01		Nov-02	Nov-01	Nov-02	November 2001 Cordon Count includes Dublin Bus passengers only	
<b>61.86%</b>		<b>57.28%</b>	<b>21.29%</b>	<b>26.37%</b>		
Taxi		Cycle		Car Occupancy estimated at 1.20		
Nov-01		Nov-02	Nov-01		Nov-02	
<b>N/A</b>		<b>0.79%</b>	<b>3.03%</b>	<b>2.30%</b>		
Walking		Total Persons				
Nov-01		Nov-02	Nov-01	Nov-02		
<b>11.89%</b>		<b>11.48%</b>	<b>4095</b>	<b>4172</b>		

QUALITY BUS CORRIDOR MONITORING ANNUAL REPORT ROCK ROAD - PRE QBC NOVEMBER 2002						
D	NETWORK PERFORMANCE	PERFORMANCE INDICATORS				NOTES
2	Assess the before & after impact of QBC on all Modes (Pre & Post QBC Analysis)	% Mode share				November 2002 Cordon Count includes all bus passengers  Car Occupancy estimated at 1.20
		Car		Bus		
		Pre QBC	Post QBC	Pre QBC	Post QBC	
		<b>57.28%</b>	<b>N/A</b>	<b>26.37%</b>	<b>N/A</b>	
		Taxi		Cycle		
		Pre QBC	Post QBC	Pre QBC	Post QBC	
		<b>0.79%</b>	<b>N/A</b>	<b>2.30%</b>	<b>N/A</b>	
Walking		Total Persons				
Pre QBC	Post QBC	Pre QBC	Post QBC			
<b>11.48%</b>	<b>N/A</b>	<b>4172</b>	<b>N/A</b>			
E	ADDITIONAL OBJECTIVES	PERFORMANCE INDICATORS				NOTES
1	Passenger Journeys (Total)	Nov-01		Nov-02		Survey Date November 2002 Services 7 & 45 0700 - 1000
		<b>N/K</b>		<b>715</b>		
2	Bus Occupancy Levels (Average)	Peak		Off Peak		
		<b>33</b>		<b>N/K</b>		
5	Passenger Satisfaction Levels	% Satisfaction				
		Reliability		Quality of Service		
		<b>N/K</b>		<b>N/K</b>		
		Quality of Information		Value for Money		
9	Mobility Impaired Access % Full Accessibility	% buses		% bus stops		
		<b>N/K</b>		<b>5%</b>		
		% ped x				
		<b>N/K</b>				

Table 12b Rock Road Pre QBC Sectional Bus & Car Journey Times

Rock Road Pre QBC Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Sallynoggin Road to Dun Laoghaire	Average	7:37	N/A	7:49	N/A	7:07	N/A	8:19	N/A
	Range	5:20 to 10:09	N/A	5:31 to 13:10	N/A	6:13 to 8:00	N/A	6:57 to 9:40	N/A
Dun Laoghaire to Temple Hill	Average	9:23	N/A	7:59	N/A	6:56	N/A	10:28	N/A
	Range	6:02 to 16:53	N/A	6:11 to 11:12	N/A	6:21 to 8:13	N/A	9:56 to 10:59	N/A
Temple Hill to Frascati Rd Blackrock	Average	8:04	N/A	6:12	N/A	7:36	N/A	5:00	N/A
	Range	4:21 to 13:14	N/A	4:59 to 8:06	N/A	6:45 to 8:55	N/A	4:38 to 5:18	N/A
Frascati Rd Blackrock to Booterstown	Average	8:46	11:04	5:32	7:01	2:15	1:38	2:11	2:05
	Range	2:52 to 17:53	2:29 to 22:40	2:23 to 10:37	3:21 to 15:18	2:15	1:19 to 2:49	1:17 to 3:01	1:23 to 2:57
Boooterstown to Ballsbridge	Average	23:16	20:20	12:13	8:34	N/A	6:42	9:47	6:20
	Range	16:19 to 31:40	12:03 to 27:13	9:04 to 17:38	6:54 to 9:46	N/A	5:35 to 9:00	9:28 to 10:06	4:11 to 7:29
Ballsbridge to Merrion Square	Average	7:16	5:18	7:22	4:35	7:35	4:58	7:03	5:00
	Range	4:47 to 9:02	3:23 to 7:02	6:00 to 8:59	3:10 to 6:09	7:35	4:26 to 5:51	5:37 to 9:05	4:04 to 5:54
Merrion Square to O'Connell Street	Average	10:40	N/A	11:11	N/A	13:01	N/A	9:03	N/A
	Range	7:00 to 15:08	N/A	7:40 to 14:22	N/A	13:01	N/A	8:01 to 10:42	N/A

**Table 12c Rock Road Pre QBC Sectional Bus Speeds**

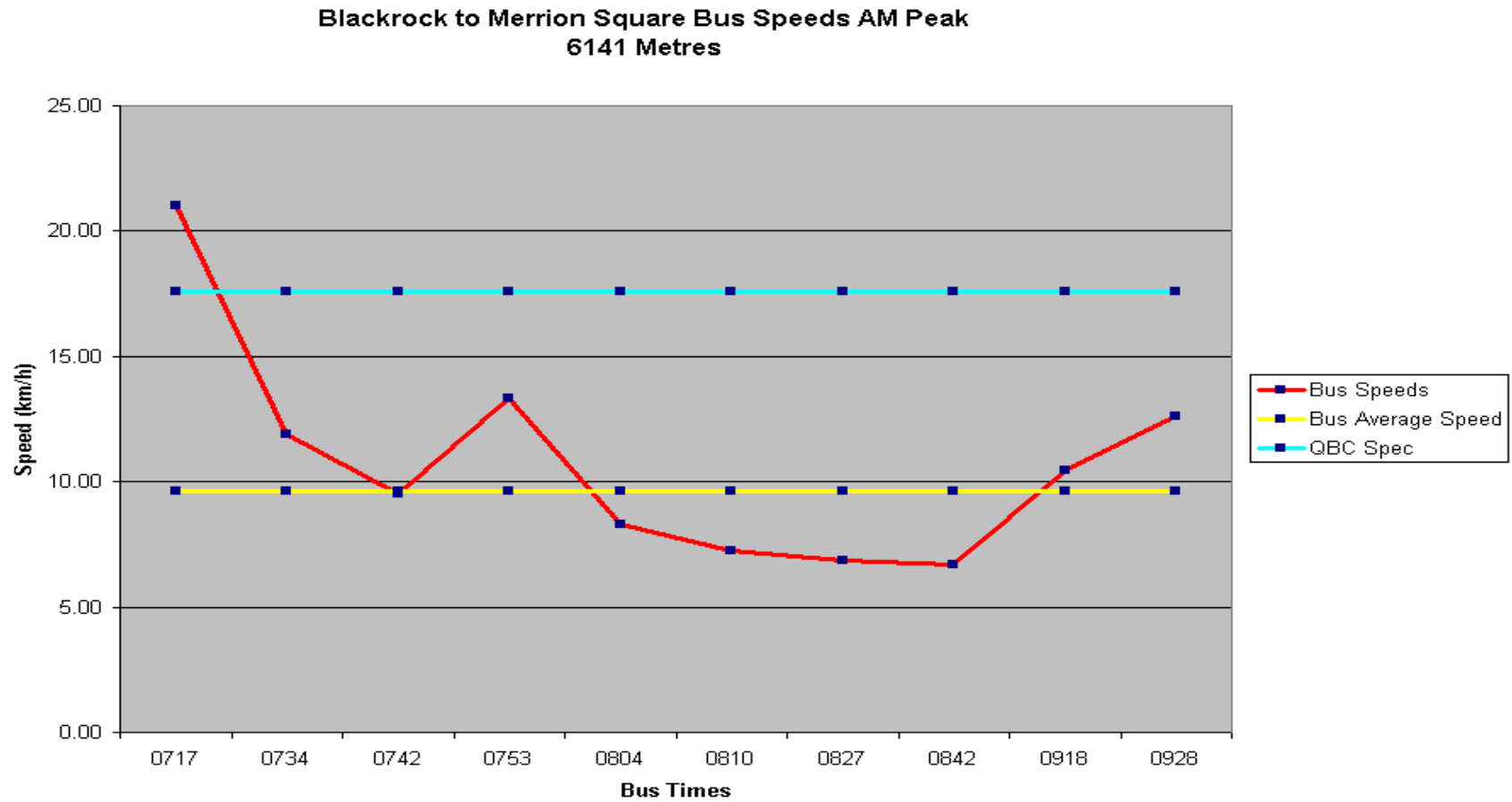
Rock Road Roadside Survey Results Sectional Results - Bus Journey Speeds				
Section	Distance Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Sallynoggin Road to Dun Laoghaire	1991	Average Range	15.68 11.77 to 22.40	16.78 14.93 to 19.22
Dun Laoghaire to Temple Hill	2455	Average Range	15.70 8.72 to 24.42	21.25 17.93 to 23.20
Temple Hill to Frascati Road	1463	Average Range	10.88 6.63 to 20.18	11.55 9.84 to 13.00
Frascati Road to Booterstown	1268	Average Range	8.68 4.25 to 26.54	33.81 33.81
Booterstown to Ballsbridge	3209	Average Range	8.27 6.08 to 11.80	N/A N/A
Ballsbridge to Merrion Square	1664	Average Range	13.74 11.05 to 20.87	13.17 13.17
Merrion Square to O'Connell Street	2124	Average Range	11.95 8.42 to 18.21	9.79 9.79

Total Inbound Sallynoggin to O'Connell Street	14174	Average Range	10.25 8.77 to 11.54	15.54 15.54
---	-------	------------------	------------------------	----------------

Section	Distance Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
O'Connell Street to Merrion Square	1608	Average Range	8.63 6.71 to 12.58	10.66 9.02 to 12.03
Merrion Square to Ballsbridge	1609	Average Range	13.10 10.75 to 16.09	13.69 10.63 to 17.19
Ballsbridge to Booterstown	3218	Average Range	15.80 10.95 to 21.29	19.74 19.12 to 20.39
Booterstown to Frascati Road	1277	Average Range	13.85 7.22 to 32.15	35.10 25.40 to 59.72
Frascati Road to Temple Hill	1210	Average Range	11.71 8.96 to 14.57	14.52 13.70 to 15.67
Temple Hill to Dun Laoghaire	2455	Average Range	18.45 13.15 to 23.82	14.07 13.41 to 14.83
Dun Laoghaire to Sallynoggin	1991	Average Range	15.28 9.07 to 21.65	14.36 12.36 to 17.19

Total Outbound O'Connell Street to Sallynoggin	13368	Average Range	14.19 11.36 to 16.67	18.86 17.54 to 20.41
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Table 12d Rock Road Pre QBC Sample Graph



### Appendix 1 November 2002 Survey Points

Blanchardstown QBC Survey Points November 2002						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	Service 39 terminus adjacent to St Josephs Hospital	304448.57	238782.93	Inbound	All	
2	North along B'town Rd South north arm at junction with Blakestown Way	306617.34	239363.65	Inbound	AM Peak	
3	South on B'town Bypass at rear of shopping centre	307321.16	239535.8	Inbound	AM Peak	
4	South on B'town Rd South south arm at junction with Blakestown Way	306598.42	239291.92	Inbound	All	
5	East on Clonsilla Rd adjacent to Coolmine Rd	306977.92	238196.09	Inbound	All	
6	Blanchardstown Bypass south east of roundabout at River Road	308650.7	238442.3	Inbound	All	
7	South on Navan Road at junction with New River Rd at start of bus lane	309421.44	237920.34	Inbound	All	
8	South on Navan Road at junction with Castleknock Rd at start of bus lane	311147.48	237012.8	Inbound	All	
9	South on Navan Road at junction with Ratoath Road	313292.44	235954.88	Inbound	All	
10	South on Manor Street adjacent to Kirwan Street	314326.25	234937.09	Inbound	All	
11	East on Ormonde Quay Upper adjacent to Capel Street	315405.26	234244.03	Inbound	All	
12	West on Poolbeg Street adjacent to Tara Street	316199.21	234346.09	Inbound	All	Count Buses only

Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
13	Service 39 terminus at Hawkins Street	316130.41	234287.64	Outbound	All	Count Buses only
14	West on Merchants Quay adjacent to Winetavern Street	315089.7	234113.06	Outbound	All	
15	North on Manor Street adjacent to Kirwan Street	314298	234936.91	Outbound	All	
16	North on Navan Road at junction with Ratoath Road	313285.35	235935.15	Outbound	All	
17	North on Navan Road after junction with Castleknock Road	311004.9	237072.13	Outbound	All	
18	North on Navan Road at end of bus lane before junction with New River Rd	309397.83	237902.15	Outbound	All	
19	North on B'town Bypass adjacent to Main Street before bus gate	308557.83	238463.94	Outbound	All	
20	West on Clonsilla Road adjacent to Coolmine Road	306982.2	238187.85	Outbound	All	
21	West on Blakestown Way after junction with B'town Rd South	306574.58	239354.68	Outbound	All	
22	North on B'town Bypass at rear of shopping centre	307295.39	239512.94	Outbound	PM Peak	
23	South on B'town Road South north arm at junction with Blakestown Way	306642.63	239352.31	Outbound	PM Peak	
24	At Service 39 terminus adjacent to St Josephs Hospital	304446.25	238786.43	Outbound	All	



## Appendix 1 November 2002 Survey Points

Finglas QBC Survey Points November 2002						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	Plunkett Avenue	312639.29	240018.97	Inbound	All	Count Buses only
2	Finglas Road by Main Street	313337.29	238735.17	Inbound	All	
3	Prospect Road at junction with Whitworth Road	315105.21	236310.60	Inbound	All	
4	Dorset Street Lower after junction with Whitworth Road	315910.49	235936.82	Inbound	All	
5	Terminus Parnell Square East	315803.22	235027.07	Inbound	All	
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
6	Parnell Street	315856.11	235026.67	Outbound	All	
7	Dorset Street Lower prior to junction with Whitworth Road	315887.84	235949.19	Outbound	All	
8	Prospect Road at junction with Whitworth Road	315087.50	236318.00	Outbound	All	
9	Finglas Road by Finglas Place	313447.40	238561.21	Outbound	All	
10	Plunkett Avenue	312644.25	240010.17	Outbound	All	

## Appendix 1 November 2002 Survey Points

Lucan QBC Survey Points November 2002						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	N4 opposite Foxhunter pub	305315.33	235462.13	Inbound	All	
2	Palmerston prior to M50 at Liffey Valley Bus Stop	307237.09	235193.80	Inbound	All	
3	Palmerston opposite The Oval	308751.41	234967.54	Inbound	All	
4	Chapelizod Sliproad	309008.32	234911.88	Inbound	All	
5	Con Colbert Road just east of junction with link road to Inchicore Road	312172.20	233836.39	Inbound	All	
6	Conyngham Road east of junction with South Circular Road	312818.17	234438.91	Inbound	All	
7	Parkgate Street at segregated bus stop	313770.20	234419.01	Inbound	All	
8	Ellis Quay just east of junction with Ellis Street/Rory O' More Bridge	314352.08	234325.50	Inbound	All	
9	Arran Quay just before junction with Church Street/Fr. Mathew Bridge	314835.45	234218.97	Inbound	All	

Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
10	Wellington Quay Service 25a departure point	315727.73	234241.88	Outbound	All	
11	Merchants Quay just before junction with Bridge Street	314924.02	234130.56	Outbound	All	
12	Conyngham Road at Bridgewater Quay prior to South Circular Road	312817.38	234427.72	Outbound	All	
13	Con Colbert Road just east of junction with link road to Inchicore Road	312175.29	233806.16	Outbound	All	
14	Chapelizod Sliproad	309497.51	234613.03	Outbound	All	
15	Palmerston just past The Oval	308691.89	234967.31	Outbound	All	
16	Palmerston after M50 at Liffey Valley Bus Stop	307221.35	235153.01	Outbound	All	
17	N4 at Foxhunter Pub	305317.04	235436.26	Outbound	All	

## Appendix 1 November 2002 Survey Points

Malahide QBC Survey Points November 2002						
Poin No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	Clare Hall Terminus	321603.58	240635.74	Inbound	All	Count Buses only
2	Malahide Rd on northern arm of roundabout Priorswood Rd/Blunden Drive	320703.35	240138.78	Inbound	All	
3	Malahide Rd on south arm of crossroads junction with Greencastle Road	320114.23	239372.47	Inbound	All	
4	Malahide Road north of junction with Kilmore Road	319214.59	238180.99	Inbound	All	
5	Malahide Rd at start of bus lane south of Kilmore Rd near St Davids Wood	319115.36	238066.66	Inbound	All	
6	Malahide Road north of junction with Collins Avenue East	318622.14	237616.33	Inbound	All	
7	Malahide Rd at start of bus lane at Golf Club opposite Casino Park	318445.73	237355.05	Inbound	All	
8	Amiens Street at end of bus lane near Connolly Station	316672.54	235028.29	Inbound	All	
9	Talbot Street Bus Terminus set down point	316350.97	234801.51	Inbound	All	

Poin No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
10	Talbot Street Bus Terminus Departure Point	316317.65	234789.33	Outbound	All	Count Buses only
11	Amiens Street/North Strand Road start of bus lane	316665.99	235050.04	Outbound	All	
12	Junction of Fairview Strand/Malahide Road at end of bus lane	317749.41	236319.94	Outbound	All	
13	Malahide Road start of bus lane just north of Griffith Avenue	318111.79	236826.26	Outbound	All	
14	Malahide Road just south of junction with Collins Avenue	318561.89	237584.12	Outbound	All	
15	Malahide Road just north of junction with Kilmore Road start of bus lane	319244.89	238244.02	Outbound	All	
16	Malahide Road south of junction with Greencastle Road at end of bus lane	320081.14	239368.79	Outbound	All	
17	Malahide Rd north of r'bout P'swood Rd/Blunden Drive start of bus lane	320669.83	240138.67	Outbound	All	
18	Terminus in Clare Hall eastbound stop	321622.93	240644.40	Outbound	All	

## Appendix 1 November 2002 Survey Points

North Clondalkin QBC Survey Points November 2002						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	East on Emmet Road just west of South Circular Road/Inchicore Road	312736.70	233581.45	Inbound	All	Count Buses only
2	East on Old Kilmainham/Mount Brown west of Basin Street	313836.85	233863.81	Inbound	All	
3	East on Cornmarket east of St Augustine Street	314861.52	233914.09	Inbound	All	
4	At 78A terminating stop on Westmoreland Street	315977.89	234302.01	Inbound	All	
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
5	78A departure stop at Aston Quay	315906.63	234315.33	Outbound	All	
6	Bridge Street just after junction with Merchants Quay	314875.07	234108.89	Outbound	All	
7	West on Cornmarket east of Francis Street	314865.29	233904.67	Outbound	All	
8	West on James Street east of Echlin Street	314100.35	233919.63	Outbound	All	
9	West on Emmet Rd east of junction with Tyrconnell Rd/Grattan Crescent	311911.25	233421.29	Outbound	All	

## Appendix 1 November 2002 Survey Points

Rathfarnham QBC Survey Points November 2002						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	Nutgrove Avenue east of Oakdown Road at start of bus lane	315950.85	228348.34	Inbound	All	Count buses only
2	Rathfarnham Rd south of junction with Main Street at end of bus lane	314462.04	229081.08	Inbound	All	
3	Rathfarnham Rd at junction with Brookvale Road at start of bus lane	314448.86	229356.31	Inbound	All	
4	Rathfarnham Rd south of junction with Terenure Rd E at end of bus lane	314434.71	230107.05	Inbound	All	
5	Harolds Cross Rd at Mount Tallant Avenue at start of bus lane	314593.66	230891.30	Inbound	All	
6	Harolds Cross Rd at junction with Leinster Rd West at end of bus lane	314738.45	231372.95	Inbound	All	
7	Harolds Cross Road north of Leinster Road at start of bus lane	314697.26	231581.29	Inbound	All	
8	Clanbrassil Street at end of bus lane	314949.06	232581.83	Inbound	All	
9	South Circular Rd before Curzon Street at start of bus lane	315310.15	232726.37	Inbound	All	
10	Camden Street north of Camden Row at end of bus lane	315582.31	233202.86	Inbound	All	
11	Aungier Street at junction with Bishop Street	315552.68	233343.04	Inbound	All	
12	Aungier Street junction with Stephen Street at start of bus lane	315587.86	233757.59	Inbound	All	
13	Westmoreland Street outside Bank of Ireland	315975.23	234116.54	Inbound	All	

Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
14	College Green east of Suffolk Street	315886.66	234053.94	Outbound	All	
15	Aungier Street at junction with Bishop Street	315564.33	233344.37	Outbound	All	
16	Camden Street south of junction with Camden Place at start of bus lane	315619.87	233060.15	Outbound	All	
17	South Circular Road at junction with Victoria St at start of bus lane	315280.68	232709.38	Outbound	All	
18	South Circular Rd at end of bus lane before junction with Clanbrassil St	315036.55	232686.17	Outbound	All	
19	Harolds Cross Rd south of junction with Grove Rd at start of bus lane	314922.54	232335.24	Outbound	All	
20	Harolds Cross Road north of Leinster Road	314722.97	231620.58	Outbound	All	
21	Harolds Cross Road south of Whitton Rd at start of bus lane	314523.92	230444.44	Outbound	All	
22	Terenure Road North at end of bus lane	314488.79	230271.86	Outbound	All	
23	Rathfarnham Road by castle entrance at start of bus lane	314474.36	229003.08	Outbound	All	
24	Rathfarnham Road at junction with Butterfield Avenue at end of bus lane	314413.76	228846.00	Outbound	All	
25	Nutgrove Avenue east of Oakdown Road at start of bus lane	315944.26	228356.59	Outbound	All	
26	Nutgrove Avenue terminus at end of bus lane	316199.65	228513.33	Outbound	All	

## Appendix 1 November 2002 Survey Points

Stillorgan QBC Survey Points November 2002						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	Dun Laoghaire DART Station departure bus stop	324397.38	228778.02	Inbound	All	Count buses only
2	Oliver Plunkett Road just after junction with Mounttown Lower	323619.71	227493.76	Inbound	All	
3	North on Stillorgan Road just after junction with Kill Lane	321816.87	226358.38	Inbound	All	
4	Stillorgan Road just south of junction with Mount Merrion Avenue	319781.15	228820.22	Inbound	All	
5	Stillorgan Road above junction with Ailesbury Road/Beaver Row	317833.90	231328.53	Inbound	All	
6	Leeson Street before junction with St Stephen's Green	316159.70	233132.93	Inbound	All	
7	Westmoreland Street prior to O'Connell Street Bridge	315977.05	234301.33	Inbound	All	

Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
8	D'Olier Street prior to junction with Townsend Street	316090.58	234271.03	Outbound	All	Count buses only
9	Leeson Street after junction with St Stephen's Green	316167.69	233147.25	Outbound	All	
10	Stillorgan Road above junction with Ailesbury Road/Beaver Row	317849.22	231346.84	Outbound	All	
11	Stillorgan Road just south of junction with Mount Merrion Avenue	319811.78	228822.55	Outbound	All	
12	Stillorgan Road just prior to junction with Kill Lane	321829.69	226389.65	Outbound	All	
13	Oliver Plunkett Rd prior to junction with Mounttown Lower	323633.43	227504.91	Outbound	All	
14	Dun Laoghaire DART Station set down bus stop	324392.57	228780.96	Outbound	All	

## Appendix 1 November 2002 Survey Points

Swords QBC Survey Points November 2002						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	South on Main Street outside County Council Offices	318293.41	246896.01	Inbound	All	Count Buses only
2	South on Main Street north of junction with Malahide Road	318204.06	246628.93	Inbound	All	
3	Dublin Road north of junction with Naul Road at end of bus lane	317798.56	244142.64	Inbound	All	
4	Swords Road South of south turn into Airport	317680.29	242832.24	Inbound	All	
5	Swords Road south of junction with Lorcan Road opposite Omni Park	316734.77	239421.89	Inbound	All	
6	Swords Road south of junction with Collins Avenue at start of bus lane	316830.30	238209.29	Inbound	All	
7	Swords Road north of junction with Richmond Road at end of bus lane	316218.80	236814.08	Inbound	All	
8	O'Connell Street just after junction with Earl Street North	315929.21	234642.06	Inbound	All	

Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
11	Eden Quay 41 departure point	316227.88	234516.09	Outbound	All	
12	North on Drumcondra Rd Lower before junction with Botanic Avenue	316167.46	236612.63	Outbound	All	
13	North on Swords Road prior to junction with Collins Avenue	316814.70	238213.51	Outbound	All	
14	North on Swords Road before junction with Lorcan Road at Omni Park	316719.50	239422.54	Outbound	All	
15	North on Swords Road south of turn into Airport (not roundabout)	317661.12	242839.39	Outbound	All	
16	North on Dublin Road north of junction with Naul Road	317781.34	244148.17	Outbound	All	
17	North on Main Street just after junction with Malahide Road	318193.98	246631.53	Outbound	All	
18	Main Street opposite County Council offices	318273.92	246901.21	Outbound	All	

## Appendix 1 November 2002 Survey Points

Tallaght QBC Survey Points November 2002						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	East on Tallaght bypass east of junction with Killinarden Heights	307143.92	226554.00	Inbound	All	
2	East on Main Street Tallaght past the Dragon Inn	309386.05	227642.26	Inbound	All	
3	East on Tallaght Road west of M50	311097.12	227858.99	Inbound	All	
4	East on Tallaght Road east of M50	311623.83	228154.79	Inbound	All	
5	North on Templeogue Road east of junction with Oldbridge Road	312908.81	228689.80	Inbound	All	
6	North on Templeogue Road north of junction with Fortfield Road	313774.38	229504.80	Inbound	All	
7	North on Templeogue Road adjacent to junction with Rathdown Park	314179.53	229942.46	Inbound	All	
8	East on Terenure Road East adjacent to Brighton Road	314844.78	230372.91	Inbound	All	
9	North on Rathgar Road south of junction with Kenilworth Road	315448.96	231391.64	Inbound	All	
10	North on Rathmines Road Lower adjacent to junction with Leinster Road	315626.99	231812.63	Inbound	All	
11	North on Rathmines Road Lower adjacent to junction with Grove Park	315678.16	232404.35	Inbound	All	
12	Camden Street junction with Grantham Street at start of bus lane	315605.86	232920.57	Inbound	All	
13	East on Dame Street east of junction with South Great Georges Street	315739.23	234054.35	Inbound	All	Count Buses only
14	North on Tara Street Bridge	316253.32	234465.55	Inbound	All	Count Buses only
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
15	Eden Quay 65 departure point	316093.57	234461.58	Outbound	All	Count Buses only
16	West on Dame Street east of junction with South Great Georges Street	315739.66	234042.74	Outbound	All	
17	Camden Street near junction with Grantham Street at end of bus lane	315626.26	232899.62	Outbound	All	
18	South on Rathmines Rd Lower adjacent to junction with Grove Park	315693.65	232404.35	Outbound	All	
19	South on Rathmines Rd Lower adjacent to junction with Leinster Rd	315638.17	231811.77	Outbound	All	
20	South on Rathgar Road east of junction with Kenilworth Road	315534.54	231507.75	Outbound	All	
21	West on Terenure Road East adjacent to Brighton Road	314847.36	230366.46	Outbound	All	
22	South on Templeogue Road adjacent to junction with Rathdown Park	314187.70	229935.15	Outbound	All	
23	South on Templeogue Road north of junction with Fortfield Road	313781.85	229498.35	Outbound	All	
24	South on Templeogue Road east of junction with Oldbridge Road	312843.02	228641.64	Outbound	All	
25	West on Tallaght Road east of M50	311634.14	228126.01	Outbound	All	
26	West on Tallaght Road west of M50	311116.47	227832.33	Outbound	All	
27	West on Main Street Tallaght past the Dragon Inn	309387.34	227631.94	Outbound	All	
28	West on Tallaght Bypass east of junction with Killinarden Heights	307147.71	226543.40	Outbound	All	



## Appendix 1 November 2002 Survey Points

Rock Road Pre QBC Survey Points November 2002						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	Glenageary Road just north of Sallynoggin Roundabout	324406.00	227163.23	Inbound	All	
2	Crofton Road opposite DART Station	324397.38	228778.02	Inbound	All	
3	Temple Hill south of junction with Newtownpark Avenue	322174.39	228826.24	Inbound	All	
4	Rock Road north of junction with Main Street/Frascati Road	321200.73	229506.07	Inbound	All	
5	Rock Road north of junction with Booterstown Avenue	320205.67	230262.04	Inbound	All	
6	Northumberland Avenue north of junction with Merrion Rd & Anglesea Rd	317919.33	232394.33	Inbound	All	
7	Merrion Square	316821.37	233567.23	Inbound	All	
8	O'Connell Street	315851.28	234774.04	Inbound	All	

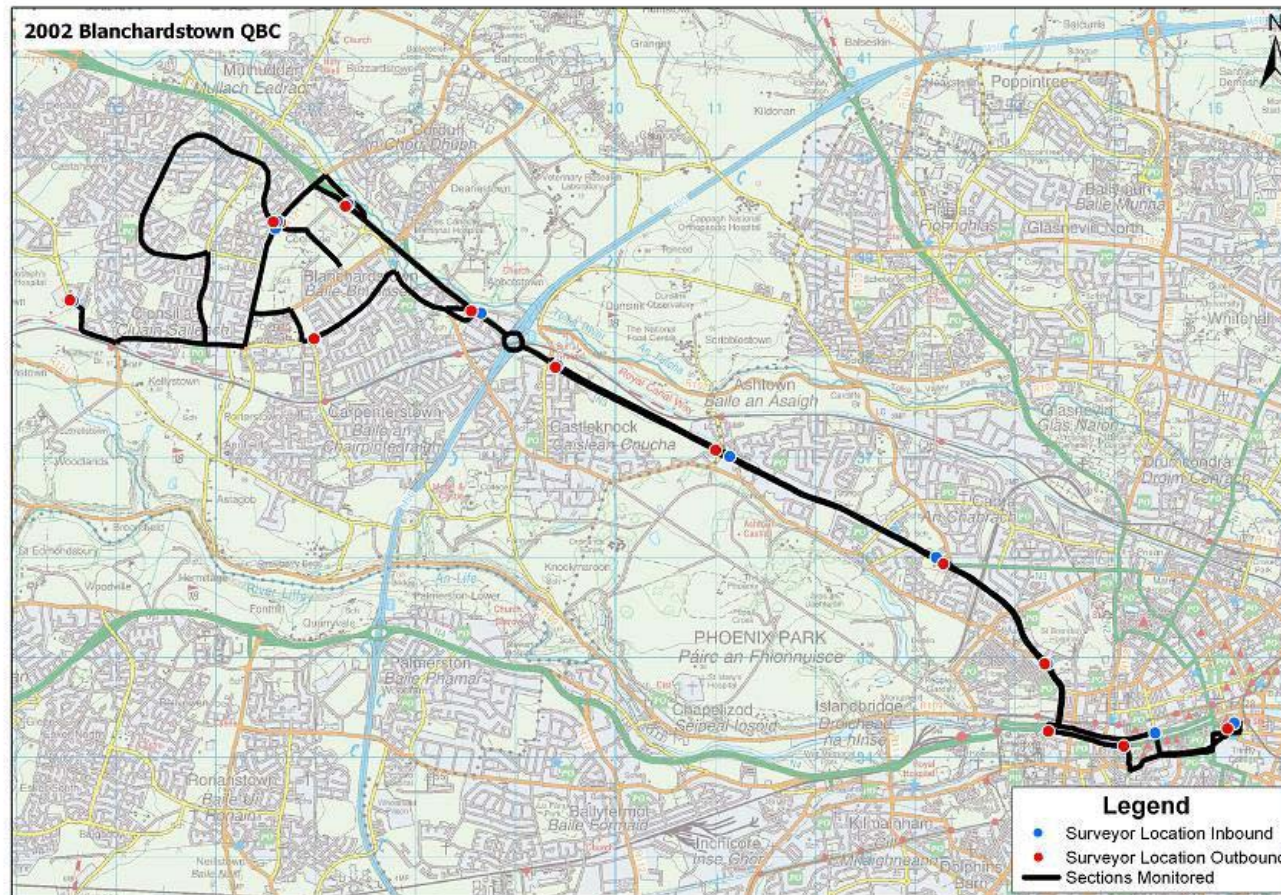
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
9	O'Connell Street	315978.56	234470.11	Outbound	All	
10	Merrion Square	316871.20	233552.80	Outbound	All	
11	Northumberland Avenue junction with Merrion Road & Anglesea Road	317928.25	232414.55	Outbound	All	
12	Rock Road junction with Booterstown Avenue	320225.89	230272.15	Outbound	All	
13	Rock Road junction with Main Street/Frascati Road	321233.45	229518.56	Outbound	All	
14	Temple Hill junction with Monkstown Road	322141.68	228849.43	Outbound	All	
15	Dun Laoghaire DART Station	324392.92	228781.04	Outbound	All	
16	Glenageary Road just south of Sallynoggin Roundabout	324417.90	227159.07	Outbound	All	

### Appendix 1 November 2002 Survey Points

Crumlin Road Pre QBC Survey Points November 2002						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	Drimnagh Road east of Walkinstown Road	309386.10	227642.70	Inbound	All	
2	Drimnagh Road east of Walkinstown Road	311555.31	231710.22	Inbound	All	
3	Crumlin Road east of St Mary's Road	312218.79	231913.10	Inbound	All	
4	Dolphins Barn at junction with South Circular Road	313888.15	232828.98	Inbound	All	
5	Dean Street between Francis Street and Patrick Street	315070.81	233469.57	Inbound	All	
6	Eden Quay	316083.61	234473.85	Inbound	All	

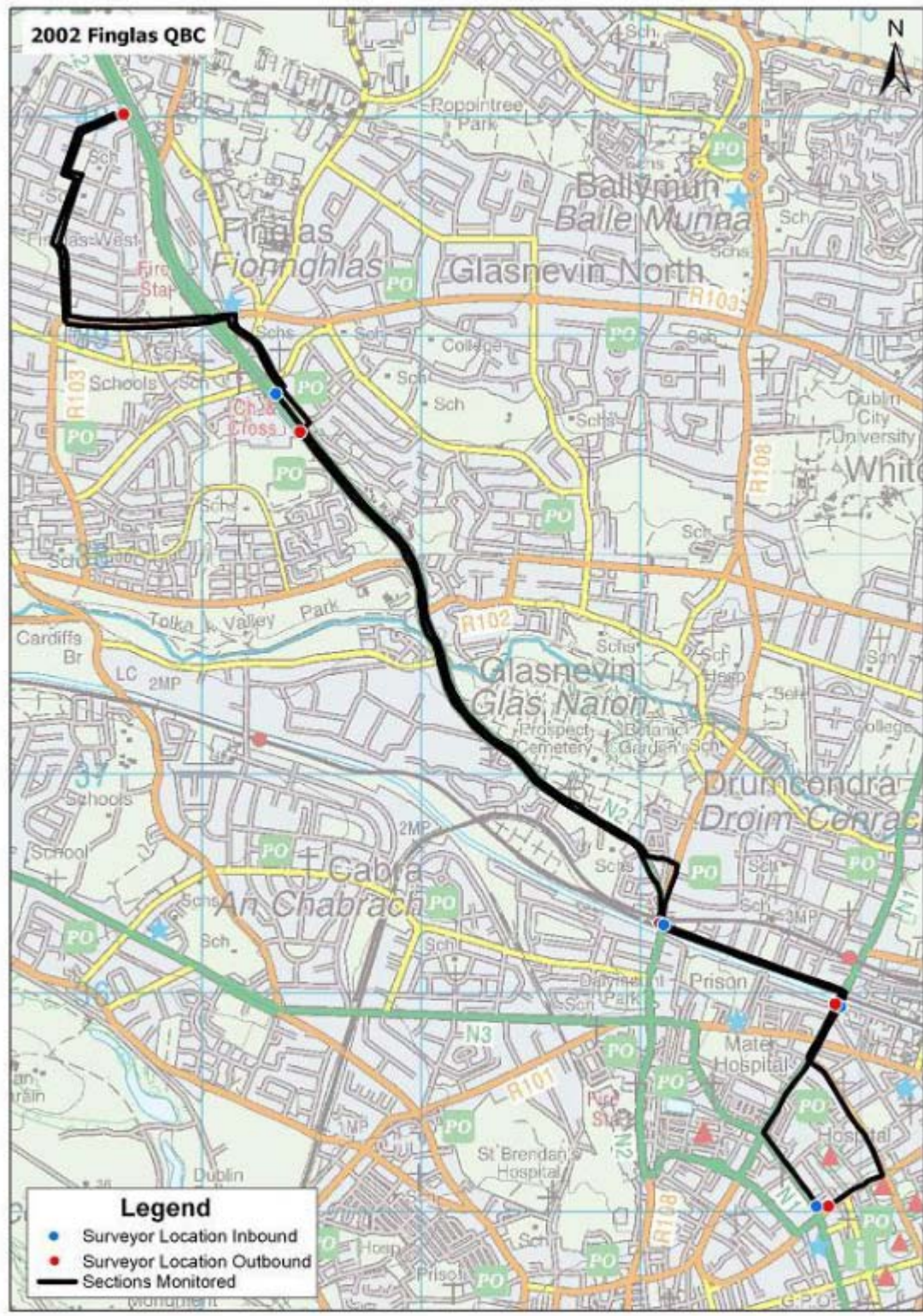
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
7	Eden Quay	316066.57	234451.48	Outbound	All	
8	Dean Street between Francis Street and Patrick Street	315068.15	233452.53	Outbound	All	
9	Dolphins Barn at junction with South Circular Road	313891.88	232810.35	Outbound	All	
10	Crumlin Road east of St Mary's Road	312248.61	231916.29	Outbound	All	
11	Drimnagh Road east of Walkinstown Road	311555.31	231710.22	Outbound	All	
12	Drimnagh Road east of Walkinstown Road	309387.21	227632.12	Outbound	All	

## Appendix 2 Maps of Survey Points Blanchardstown QBC



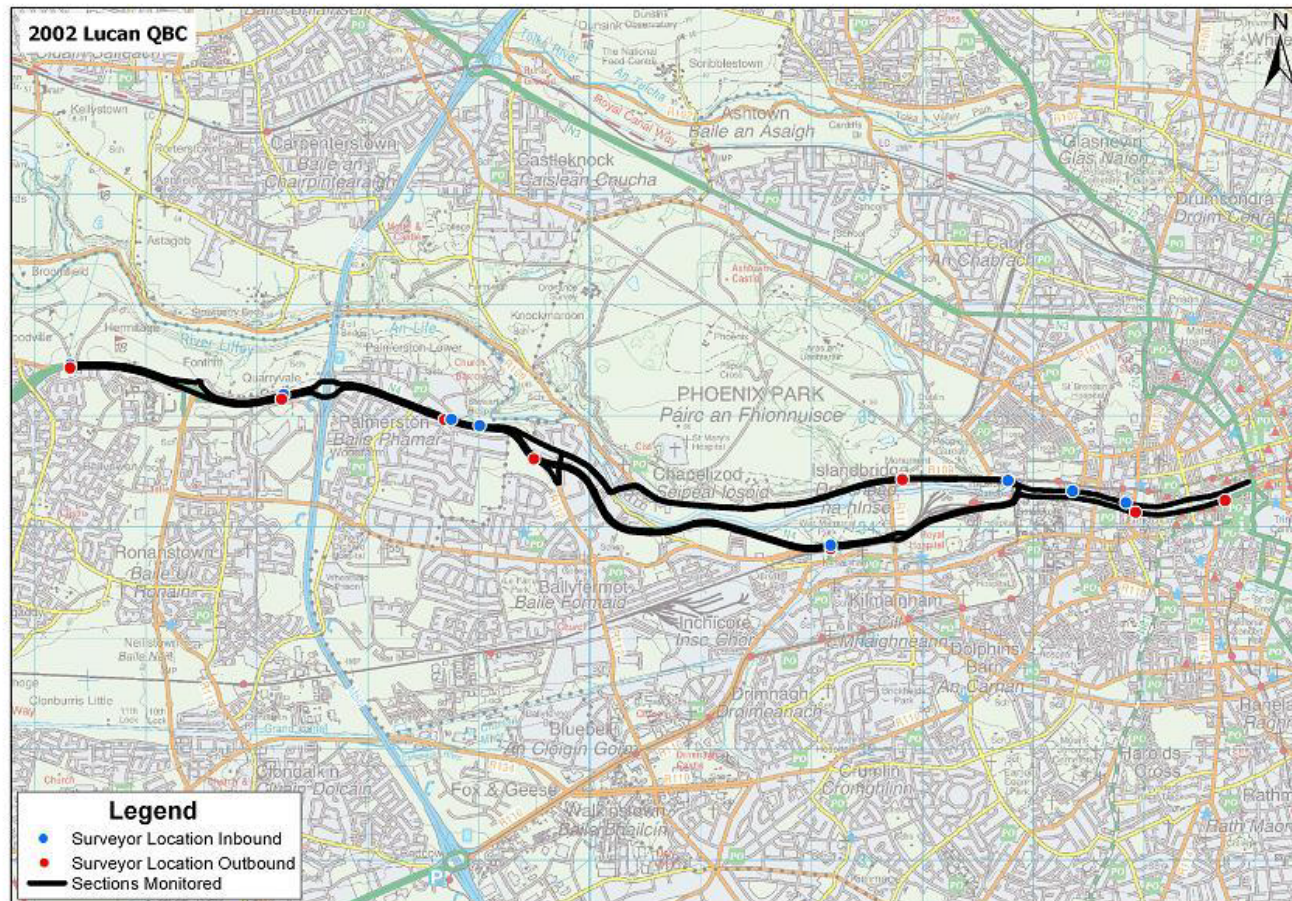


# Finglas QBC



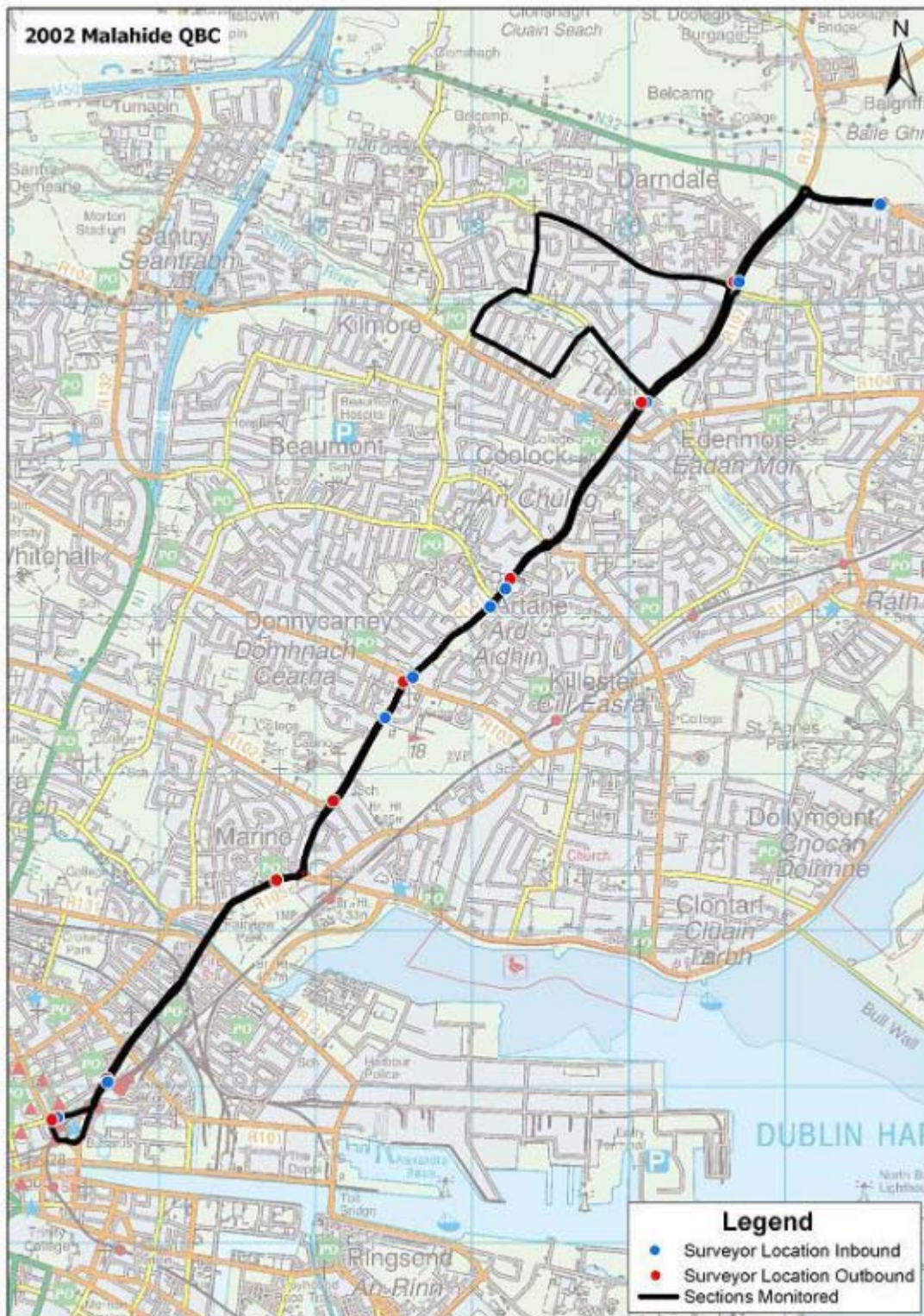


## Lucan QBC



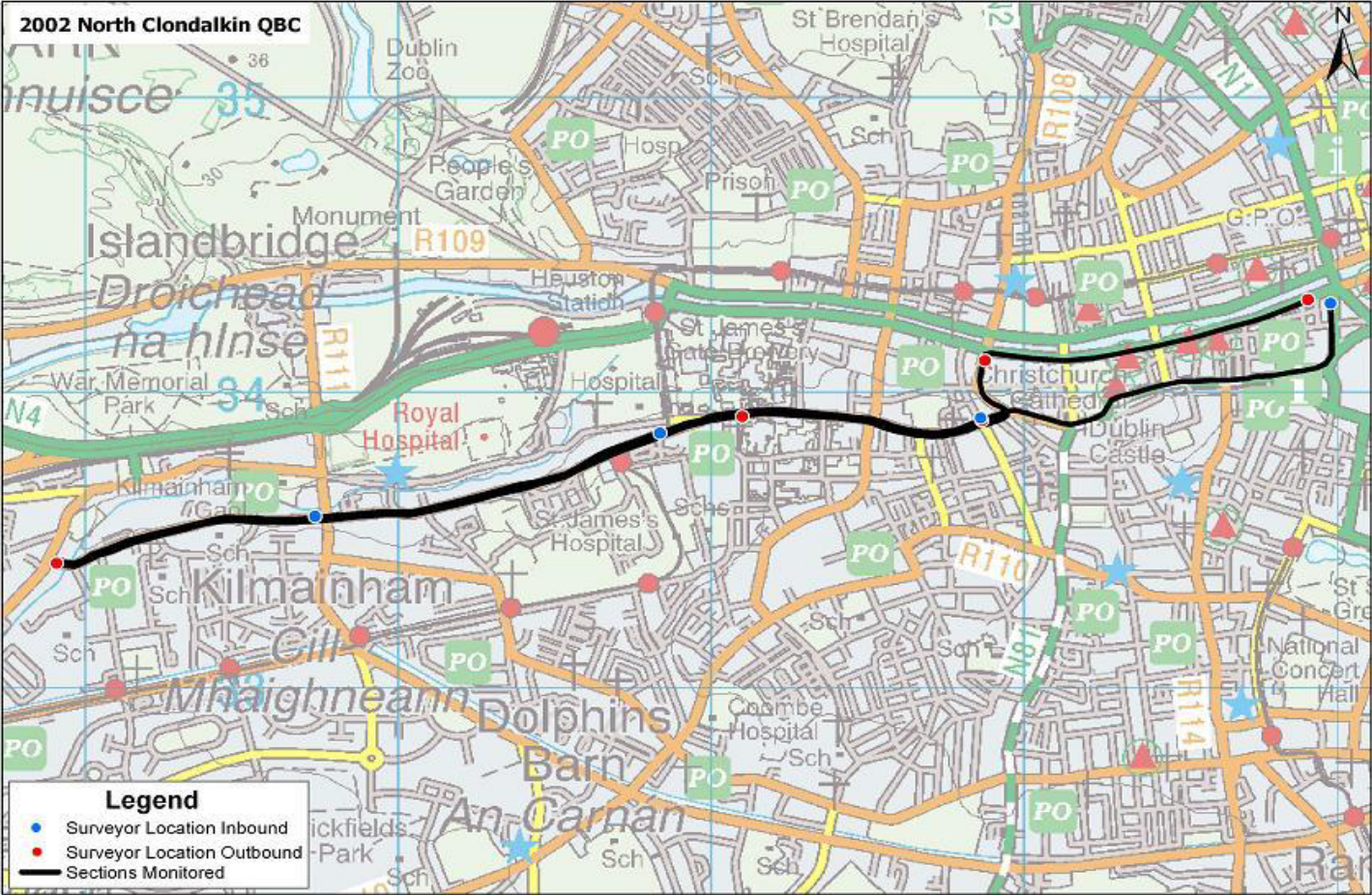


## Malahide QBC



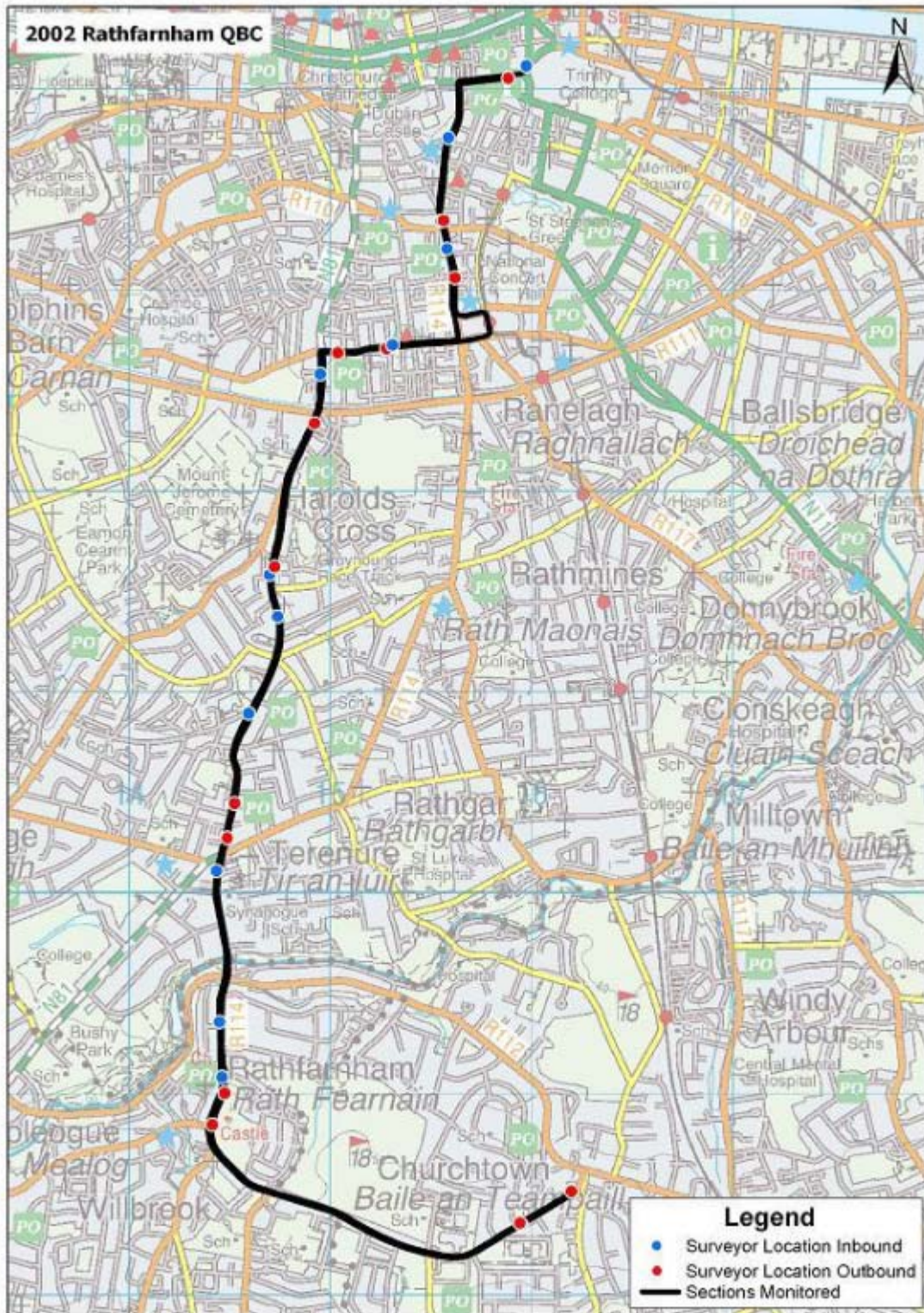


North Clondalkin QBC





# Rathfarnham QBC





## Stillorgan QBC



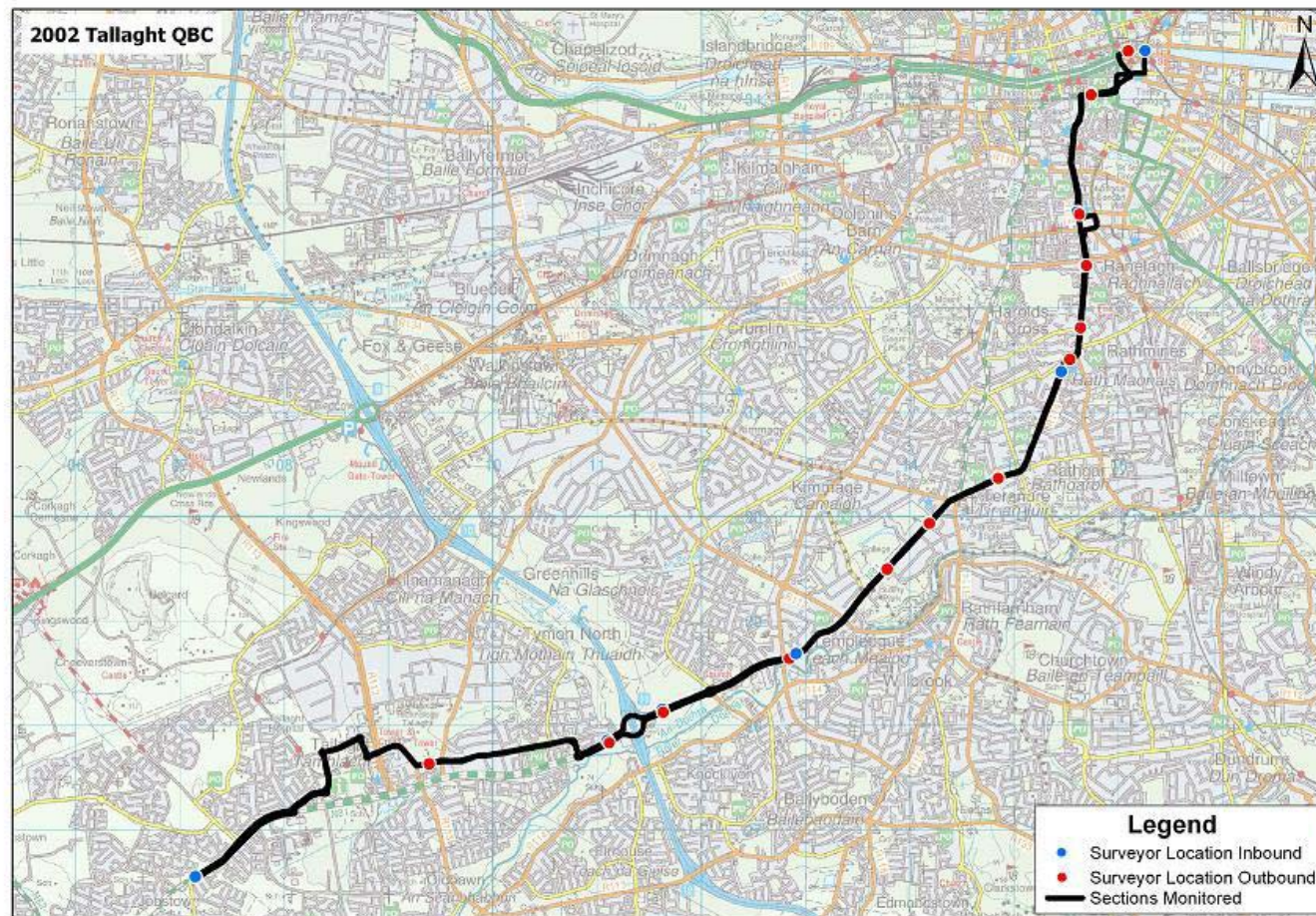


# Swords QBC





## Tallaght QBC





## Rock Road Pre QBC





## Crumlin Road Pre QBC

