



**QBC Monitoring Report**  
**Dublin Transportation Office**  
**November 2003**

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## **1 Introduction & Structure of the Report**

### **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.

To date, monitoring has been carried out in November 2002 and November 2003. The undertaking of monitoring on an annual basis measures QBC performance both at a point in time, and over time.

Although this report deals specifically with the results from November 2003, comparisons are made with the results from 2002.

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 2003 QBC monitoring exercise based on the report given to the DTO Steering Committee at its April 2004 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 2003 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** contains tables of Performance Indicators measured over the period 2002 and 2003.

**Section 8** 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 9** contains an example of the “Final Reports” for each QBC showing the detailed results for Stillorgan QBC.

**Section 10** contains tables showing comparative bus and car journey times for each QBC on a sectional basis

**Section 11** contains tables showing bus speeds for each QBC on a sectional basis.

**Section 12** contains a “League Table” of results with comparisons with 2002.

**Section 13** 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 14** 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 2003 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 9411 (25.69%) from November 1997 to November 2003. See [Table 2](#) for details.
- 2.2 The number of buses supplied by Dublin Bus has increased by 221 (34.91%) from November 1997 to November 2003. See [Table 2](#) for details.
- 2.3 The number of bus passengers has increased by 18498 (60.57%) from November 1997 to November 2003. See [Table 2](#) for details.
- 2.4 In the 12 months from November 2002 to November 2003 the number of cars crossing the canal cordon points has reduced by 2903 (9.64%). See [Table 3](#) for details.
- 2.5 In the 12 months from November 2002 to November 2003 the number of bus passengers has increased by 2430 (5.21%) with passenger growth of greater than 10% on Blanchardstown, Lucan and Tallaght QBCs. See [Table 3](#) for details.
- 2.6 Bus average journey times were less than the corresponding car average journey times in 7 out of 9 QBCs with significant (greater than 10%) variations in 6 QBCs. See [Table 4](#) for details.
- 2.7 Bus average journey times in the morning and afternoon/evening peak periods reduced in 7 out of the 9 QBCs compared with November 2002. See [Table 5](#) for details.
- 2.8 Significant reductions in bus average journey times (in excess of 10%) were recorded in 5 out of 9 QBCs. See [Table 5](#) for details.
- 2.9 Bus average journey speed over the 9 QBCs measured in the morning peak period had increased from 12.96 kilometres per hour in November 2002 to 14.74 kilometres per hour in November 2003. See [Table 5](#) for details.
- 2.10 Bus mode share at the canal cordon crossing points has increased from 50.94% in November 2002 to 52.44% in November 2003. See [Table 5](#) & [Table 6b](#) for details.
- 2.11 Average passenger waiting times have improved in 5 out of 9 QBCs in the morning peak period and in 7 out of 9 QBCs in the off peak period. See [Table 5](#) for details.
- 2.12 The percentage of low floor buses operating on QBCs has improved from 38% in November 2002 to 47% in November 2003. See [Table 5](#) 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 2003									
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)	36:37		32:10					
A5	Corridor Bus Journey Time (Range)	31:47 to 41:37		27:05 to 37:48		River Rd to Ormond/Merchants Quay			
A5	Corridor Bus Speed	13.92 km/h		15.64 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)	28:51		27:56		Blanchardstown Bypass to North Circular Road			
A5	Comparison of Bus v Car Journey Times (Range)	17:00 to 41:42		13:36 to 44:32					
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>					
B1a	Average Peak Wait Time	3 minutes		1:30					
B1b	Average Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>					
B1c	Average Off Peak Wait Time	2 minutes		0		Timings at Navan Road Garda Station			
B1d	Average Off Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>					
B2	Boarding & Alighting Time / % of total journey time	4 minutes		3:39					
		<b>Target</b>		<b>Actual</b>					
		2 minutes		0					
		<b>AM Peak</b>		<b>PM Peak</b>					
		12.21%		12.01%		BAC On Bus Survey Nov 02			
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>	
		Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03
		41.32%	40.11%	45.78%	46.31%	27.70%	N/A	67.02%	N/A
		<b>Taxi</b>		<b>Cycle</b>		<b>Taxi</b>		<b>Cycle</b>	
		Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03
		0.66%	0.88%	1.72%	1.49%	0.71%	N/A	1.04%	N/A
		<b>Walking</b>		<b>Total Persons</b>		<b>Walking</b>		<b>Total Persons</b>	
		Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03
		8.08%	8.47%	15971	17607	0.66%	N/A	9767	N/A
E1	Passenger Journeys (Total)	<b>Nov-02</b>		<b>Nov-03</b>		Cordon Counts (0700 - 1000) BAC Designated QBC Routes			
		4912		5344					

Table 1b Finglas QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT FINGLAS NOVEMBER 2003						
Spec Ref	KEY OBJECTIVES	PERFORMANCE INDICATORS		NOTES		
A5	Corridor Bus Journey Times	<b>AM Peak</b>	<b>PM Peak</b>	Finglas to City Centre		
A5	Corridor Bus Journey Time (Average)	<b>16:53</b>	<b>24:54</b>			
A5	Corridor Bus Journey Time (Range)	<b>12:28 to 21:54</b>	<b>16:27 to 32:36</b>			
A5	Corridor Bus Speed	<b>18.74 km/h</b>	<b>12.54 km/h</b>			
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)	<b>11:46</b>	<b>20:20</b>			
A5	Comparison of Bus v Car Journey Times (Range)	<b>7:30 to 16:22</b>	<b>9:40 to 29:42</b>			
B1	Passenger Wait Times	<b>Target</b>	<b>Actual</b>	Timings at Harts Corner		
B1a	Average Peak Wait Time	<b>3 minutes</b>	<b>4:54</b>			
B1b	Average Peak Excess Wait Time	<b>Target</b>	<b>Actual</b>			
B1c	Average Off Peak Wait Time	<b>2 minutes</b>	<b>1:54</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>4:03</b>			
		<b>Target</b>	<b>Actual</b>	BAC On Bus Survey Nov 02		
		<b>2 minutes</b>	<b>0:03</b>			
		<b>AM Peak</b>	<b>PM Peak</b>			
		<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>				Survey at Binn's Bridge Includes Swords QBC
		<b>Car</b>		<b>Bus</b>		
		<b>Nov-02</b>	<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>	
		<b>33.87%</b>	<b>36.55%</b>	<b>54.16%</b>	<b>50.88%</b>	
		<b>Taxi</b>		<b>Cycle</b>		
		<b>Nov-02</b>	<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>	
		<b>1.03%</b>	<b>0.92%</b>	<b>1.97%</b>	<b>1.34%</b>	
		<b>Walking</b>		<b>Total Persons</b>		
		<b>Nov-02</b>	<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>	
		<b>6.19%</b>	<b>7.64%</b>	<b>16958</b>	<b>16553</b>	
E1	Passenger Journeys (Total)	<b>Nov 2002</b>		<b>Nov 2003</b>		
		<b>1832</b>		<b>1437</b>		
		Cordon Counts (0700 - 1000) BAC Designated QBC Routes				

Table 1c Lucan QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT LUCAN NOVEMBER 2003									
Spec Ref	KEY OBJECTIVES	PERFORMANCE INDICATORS				NOTES			
A5	Corridor Bus Journey Times	<b>AM Peak</b>		<b>PM Peak</b>		Foxhunter Pub to Bachelors Walk/ Wellington Quay via Chapelized Bypass			
A5	Corridor Bus Journey Time (Average)	31:55		28:04					
A5	Corridor Bus Journey Time (Range)	27:12 to 36:32		25:53 to 33:19					
A5	Corridor Bus Speed	21.42 km/h		23.86 km/h					
A5	Comparison of Corridor Journey Times Bus v Car	<b>Bus AM Peak</b>		<b>Car AM Peak</b>		Foxhunter Pub to Bachelors Walk via Chapelized Bypass			
A5	Comparison of Bus v Car Journey Times (Average)	31:55		36:31					
A5	Comparison of Bus v Car Journey Times (Range)	27:12 to 36:32		19:43 to 67:29					
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>		Timings at Palmerston			
B1a	Average Peak Wait Time	3 minutes		1:49					
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		5:06					
B1d	Average Off Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>		BAC On Bus Survey Nov 02			
		2 minutes		1:06					
B2	Boarding & Alighting Time / % of total journey time	<b>AM Peak</b>		<b>PM Peak</b>					
		10.06%		14.69%		% Mode share at Palmerston			
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	% Mode share at Canal Cordon				% Mode share at Palmerston			
		<b>Car</b>		<b>Bus</b>		<b>Car</b>		<b>Bus</b>	
		Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03
		47.46%	40.41%	45.62%	52.92%	45.17%	N/A	47.68%	N/A
		<b>Taxi</b>		<b>Cycle</b>		<b>Taxi</b>		<b>Cycle</b>	
		Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03
		0.86%	0.82%	0.83%	0.81%	0.43%	N/A	0.50%	N/A
		<b>Walking</b>		<b>Total Persons</b>		<b>Walking</b>		<b>Total Persons</b>	
		Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03
		0.89%	0.83%	17054	16014	1.78%	N/A	13020	N/A
E1	Passenger Journeys (Total)	<b>Nov-02</b>		<b>Nov-03</b>		Cordon Counts (0700 - 1000) BAC Designated QBC Routes			
		4688		5139					

Table 1d Malahide QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT MALAHIDE NOVEMBER 2003					
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)	27:36		34:57	
A5	Corridor Bus Journey Time (Range)	18:39 to 33:30		26:38 to 55:25	
A5	Corridor Bus Speed	13.34 km/h		10.96 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)	23:57		30:39	
A5	Comparison of Bus v Car Journey Times (Range)	15:35 to 31:12		14:41 to 56:31	
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>	
B1a	Average Peak Wait Time	3 minutes		2:10	
B1b	Average Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>	
B1b	Average Peak Excess Wait Time	2 minutes		0	
B1c	Average Off Peak Wait Time	<b>Target</b>		<b>Actual</b>	
B1c	Average Off Peak Wait Time	4 minutes		2:27	
B1d	Average Off Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>	
B1d	Average Off Peak Excess Wait Time	2 minutes		0	
B2	Boarding & Alighting Time / % of total journey time	<b>AM Peak</b>		<b>PM Peak</b>	
B2	Boarding & Alighting Time / % of total journey time	21.01%		15.92%	
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-02</b>	<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	20.87%	15.68%	68.20%	72.92%
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-02</b>	<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	1.83%	1.88%	2.50%	2.86%
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-02</b>	<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	4.40%	5.14%	13902	12542
E1	Passenger Journeys (Total)	<b>Nov-02</b>		<b>Nov-03</b>	
E1	Passenger Journeys (Total)	4796		4750	
E1	Passenger Journeys (Total)	Cordon Counts (0700 - 1000) BAC Designated QBC Routes			

Table 1e North Clondalkin QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT NORTH CLONDALKIN NOVEMBER 2003									
Spec Ref	KEY OBJECTIVES	PERFORMANCE INDICATORS				NOTES			
A5	Corridor Bus Journey Times	<b>AM Peak</b>		<b>PM Peak</b>		Coldcut Road to Westmoreland Street/ Aston Quay			
A5	Corridor Bus Journey Time (Average)	38:29		61:34					
A5	Corridor Bus Journey Time (Range)	25:23 to 50:59		54:21 to 71:48					
A5	Corridor Bus Speed	13.92 km/h		8.92 km/h					
A5	Comparison of Corridor Journey Times Bus v Car	<b>Bus AM Peak</b>		<b>Car AM Peak</b>		Coldcut Road to Cornmarket			
A5	Comparison of Bus v Car Journey Times (Average)	29:41		23:27					
A5	Comparison of Bus v Car Journey Times (Range)	20:12 to 38:40		14:05 to 48:26					
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>		Timings at James's Street			
B1a	Average Peak Wait Time	3 minutes		7:01					
B1b	Average Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>					
		2 minutes		4:01					
B1c	Average Off Peak Wait Time	<b>Target</b>		<b>Actual</b>					
		4 minutes		5:25					
B1d	Average Off Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>					
		2 minutes		1:25					
B2	Boarding & Alighting Time / % of total journey time	<b>AM Peak</b>		<b>PM Peak</b>		BAC On Bus Survey Nov 02			
		14.56%		18.28%					
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	% Mode share at Canal Cordon				% Mode share at Ballyfermot			
		<b>Car</b>		<b>Bus</b>		<b>Car</b>		<b>Bus</b>	
		Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03
		32.29%	33.21%	61.04%	60.79%	44.84%	N/A	40.43%	N/A
		<b>Taxi</b>		<b>Cycle</b>		<b>Taxi</b>		<b>Cycle</b>	
		Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03
		0.77%	0.66%	0.77%	1.35%	0.83%	N/A	0.85%	N/A
		<b>Walking</b>		<b>Total Persons</b>		<b>Walking</b>		<b>Total Persons</b>	
		Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03
		2.37%	0.77%	4679	5035	10.45%	N/A	5538	N/A
E1	Passenger Journeys (Total)	<b>Nov 2002</b>		<b>Nov 2003</b>		Cordon Counts (0700 - 1000) BAC QBC Designated Routes			
		1972		2283					

Table 1f Rathfarnham QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT RATHFARNHAM NOVEMBER 2003					
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)	30:46		43:14	
A5	Corridor Bus Journey Time (Range)	19:14 to 37:43		39:29 to 48:41	
A5	Corridor Bus Speed	11.89 km/h		9.00 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)	22:11		25:38	
A5	Comparison of Bus v Car Journey Times (Range)	13:45 to 27:43		18:55 to 32:44	
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>	
B1a	Average Peak Wait Time	3 minutes		4:07	
B1b	Average Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>	
B1c	Average Off Peak Wait Time	2 minutes		1:07	
B1d	Average Off Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>	
B2	Boarding & Alighting Time / % of total journey time	4 minutes		4:58	
		<b>Target</b>		<b>Actual</b>	
		2 minutes		0:58	
		<b>AM Peak</b>		<b>PM 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-02</b>	<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>
		38.74%	39.55%	42.48%	44.08%
		<b>Taxi</b>		<b>Cycle</b>	
		<b>Nov-02</b>	<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>
		0.79%	1.24%	5.08%	4.80%
		<b>Walking</b>		<b>Total Persons</b>	
		<b>Nov-02</b>	<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>
		9.31%	6.75%	7858	8276
E1	Passenger Journeys (Total)	<b>Nov-02</b>		<b>Nov-03</b>	
		2129		2420	
		Cordon Counts (0700 - 1000) BAC QBC Designated Routes			

Table 1g Stillorgan QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT STILLORGAN NOVEMBER 2003									
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)	29:00		29:16					
A5	Corridor Bus Journey Time (Range)	24:56 to 33:12		23:34 to 33:40		Foxrock Church to Leeson Street			
A5	Corridor Bus Speed	19.00 km/h		19.21 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)	29:00		41:22					
A5	Comparison of Bus v Car Journey Times (Range)	24:56 to 33:12		25:14 to 68:02		Foxrock Church to Leeson Street			
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>					
B1a	Average Peak Wait Time	3 minutes		1:39					
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>		Timings at Donnybrook Village			
B2	Boarding & Alighting Time / % of total journey time	4 minutes		3:59					
		2 minutes		0					
		<b>AM Peak</b>		<b>PM Peak</b>		BAC On Bus Survey Nov 02			
		18.86%		N/A					
D1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	% Mode share at Canal Cordon				% Mode share at Fosters Ave N11			
		<b>Car</b>		<b>Bus</b>		<b>Car</b>		<b>Bus</b>	
		Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03
		32.40%	29.10%	44.39%	46.76%	52.13%	N/A	43.21%	N/A
		<b>Taxi</b>		<b>Cycle</b>		<b>Taxi</b>		<b>Cycle</b>	
		Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03
		0.83%	1.54%	5.00%	3.36%	0.84%	N/A	0.91%	N/A
		<b>Walking</b>		<b>Total Persons</b>		<b>Walking</b>		<b>Total Persons</b>	
		Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03	Nov-02	Nov-03
		14.26%	17.65%	13606	13363	0.37%	N/A	0.37%	N/A
E1	Passenger Journeys (Total)	<b>Nov 2002</b>		<b>Nov 2003</b>		Cordon Counts (0700 - 1000) BAC QBC Designated Routes			
		4483		4704					



Table 1h Swords QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT SWORDS NOVEMBER 2003						
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)	61:32		66:52		
A5	Corridor Bus Journey Time (Range)	38:46 to 81:36		55:49 to 78:06		
A5	Corridor Bus Speed	13.81 km/h		12.63 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)	44:41		45:08		
A5	Comparison of Bus v Car Journey Times (Range)	25:52 to 56:59		22:39 to 63:21		
B1	Passenger Wait Times	<b>Target</b>		<b>Actual</b>		
B1a	Average Peak Wait Time	3 minutes		3:32		
B1b	Average Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>		
B1c	Average Off Peak Wait Time	2 minutes		0:32		
B1d	Average Off Peak Excess Wait Time	<b>Target</b>		<b>Actual</b>		
B2	Boarding & Alighting Time / % of total journey time	4 minutes		4:25		
		<b>Target</b>		<b>Actual</b>		
		2 minutes		0:25		
		<b>AM Peak</b>		<b>PM 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 Finglas QBC
		<b>Car</b>		<b>Bus</b>		
		<b>Nov-02</b>	<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>	
		33.87%	36.55%	54.16%	50.88%	
		<b>Taxi</b>		<b>Cycle</b>		
		<b>Nov-02</b>	<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>	
		1.03%	0.92%	1.97%	1.34%	
		<b>Walking</b>		<b>Total Persons</b>		
		<b>Nov-02</b>	<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>	
		6.19%	7.64%	16958	16553	
E1	Passenger Journeys (Total)	<b>Nov 2002</b>		<b>Nov 2003</b>		
		2242		2905		
		Cordon Counts (0700 - 1000) BAC Designated QBC Routes				

Table 1i Tallaght QBC

QUALITY BUS CORRIDOR MONITORING ANNUAL SUMMARY REPORT TALLAGHT NOVEMBER 2003				
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)	<b>47:37</b>	<b>43:07</b>	
A5	Corridor Bus Journey Time (Range)	<b>36:20 to 55:57</b>	<b>36:36 to 48:49</b>	West of M50 to Dame Street
A5	Corridor Bus Speed	<b>11.11 km/h</b>	<b>12.32 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>39:43</b>	<b>45:11</b>	
A5	Comparison of Bus v Car Journey Times (Range)	<b>28:16 to 46:37</b>	<b>23:30 to 76:23</b>	West of M50 to Camden St Lower
B1	Passenger Wait Times	<b>Target</b>	<b>Actual</b>	
B1a	Average Peak Wait Time	<b>3 minutes</b>	2:35	
B1b	Average Peak Excess Wait Time	<b>Target</b>	<b>Actual</b>	
B1c	Average Off Peak Wait Time	<b>2 minutes</b>	0	
B1d	Average Off Peak Excess Wait Time	<b>Target</b>	<b>Actual</b>	Timings at Rathmines
B2	Boarding & Alighting Time / % of total journey time	<b>4 minutes</b>	5:18	
		<b>Target</b>	<b>Actual</b>	
		<b>2 minutes</b>	1:18	
		<b>AM Peak</b>	<b>PM Peak</b>	BAC On Bus Survey Nov 02
		<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-02</b>	<b>Nov-03</b>	<b>Nov-02</b>
		<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>
		24.46%	21.87%	49.25%
		50.29%	49.25%	50.29%
		<b>Taxi</b>	<b>Cycle</b>	
		<b>Nov-02</b>	<b>Nov-03</b>	<b>Nov-02</b>
		<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>
		0.55%	0.61%	4.61%
		5.54%	4.61%	5.54%
		<b>Walking</b>	<b>Total Persons</b>	
		<b>Nov-02</b>	<b>Nov-03</b>	<b>Nov-02</b>
		<b>Nov-03</b>	<b>Nov-02</b>	<b>Nov-03</b>
		19.21%	20.03%	11739
		12885	11739	12885
E1	Passenger Journeys (Total)	<b>Nov-02</b>	<b>Nov-03</b>	Cordon Counts (0700 - 1000) BAC QBC Designated Routes
		<b>3560</b>	<b>4115</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 2003. Monitoring was also undertaken on sections of the proposed South Clondalkin QBC to establish a base performance prior to the implementation of QBC measures. A similar pre-QBC monitoring exercise had been undertaken in November 2002 for Crumlin Road (Service 77) and Rock Road. 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 2003 surveys were carried out by *Transportation Planning International* following a competitive tender.

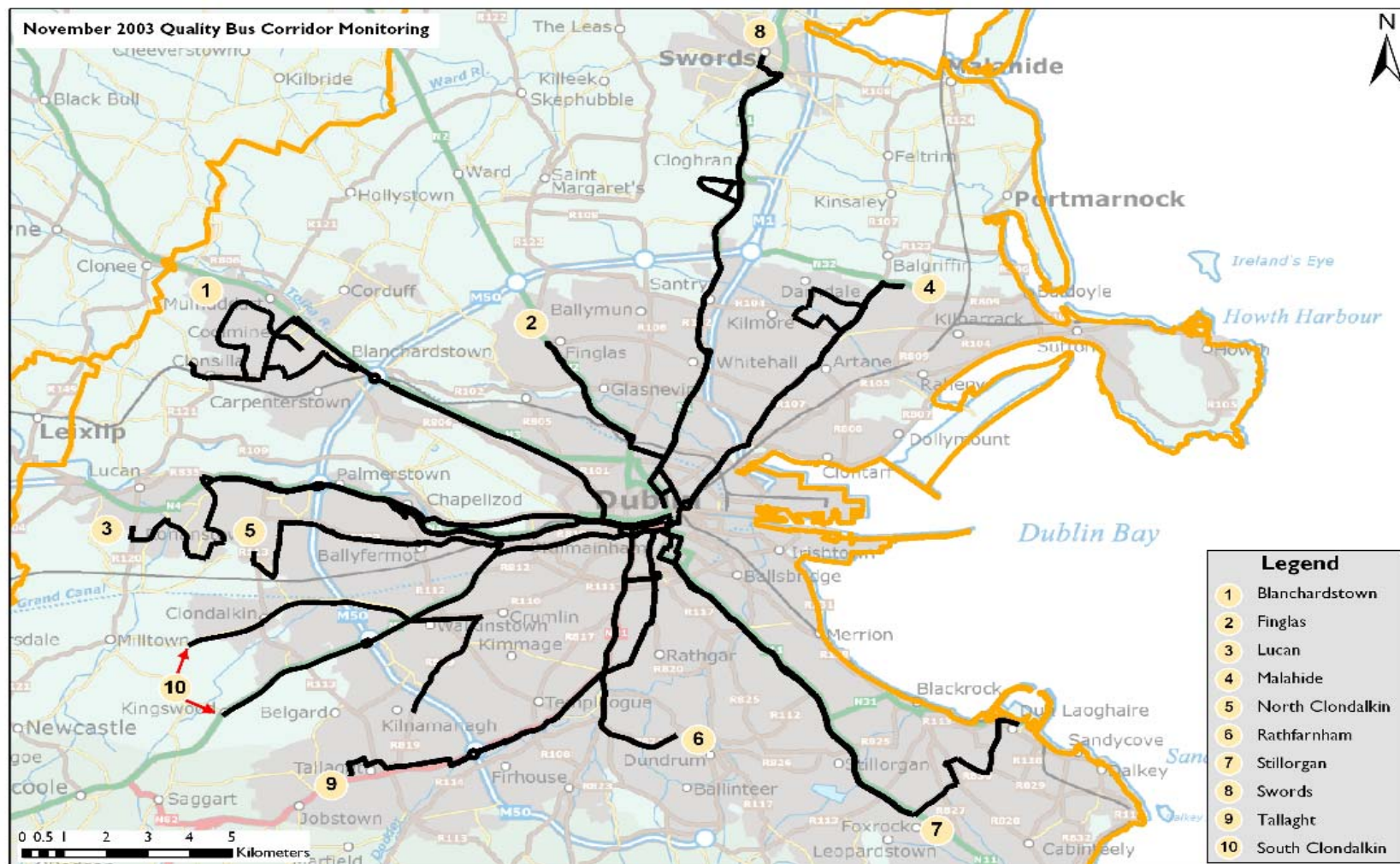
Traffic Cordon Counts were undertaken by Dublin City Council measuring the volume of citybound traffic and persons in the morning peak period with a view to reporting on modal share. This data included the counting of bus passengers.

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 2003**



## 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 2003

**Table 2** is a summary of the progress that has been made from November 1997 to November 2003 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 - 2003**

<b>QBC Monitoring 1997 - 2003</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-03	% Change
Stillorgan	CARS	5794	3323	-42.65
	BUSES	40	128	220.00
	BUS PAX	1787	6058	239.00
Blanchardstown	CARS	5963	5561	-6.74
	BUSES	83	136	63.86
	BUS PAX	4573	6668	45.81
Lucan	CARS	6104	5393	-11.65
	BUSES	71	106	49.30
	BUS PAX	4303	6759	57.08
Finglas / Swords	CARS	5678	5000	-11.94
	BUSES	112	133	18.75
	BUS PAX	5670	7611	34.23
North Clondalkin	CARS	1555	1405	-9.65
	BUSES	46	46	0.00
	BUS PAX	2079	2879	38.48
Malahide	CARS	4620	1599	-65.39
	BUSES	133	155	16.54
	BUS PAX	4747	9116	92.04
Tallaght	CARS	3314	2237	-32.50
	BUSES	72	94	30.56
	BUS PAX	4098	6318	54.17
Rathfarnham	CARS	3605	2704	-24.99
	BUSES	76	56	-26.32
	BUS PAX	3285	3631	10.53
<b>Total</b>	<b>CARS</b>	<b>36633</b>	<b>27222</b>	<b>-25.69</b>
	<b>BUSES</b>	<b>633</b>	<b>854</b>	<b>34.91</b>
	<b>BUS PAX</b>	<b>30542</b>	<b>49040</b>	<b>60.57</b>

## 6.2 Changes from 2002 to 2003

**Table 3** shows the changes in the last 12 months. There has been a decrease of 9.64% 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 5.21% increase in passengers.

**Table 3 Summary of Progress 2002 - 2003**

<b>QBC Monitoring 2002 - 2003</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-02	Nov-03	% Change
Stillorgan	CARS	3856	3323	-13.82
	BUSES	124	128	3.23
	BUS PAX	5759	6058	5.19
Blanchardstown	CARS	5559	5561	0.04
	BUSES	120	136	13.33
	BUS PAX	5884	6668	13.32
Lucan	CARS	6798	5393	-20.67
	BUSES	100	106	6.00
	BUS PAX	6065	6759	11.44
Finglas / Swords	CARS	4915	5000	1.73
	BUSES	158	133	-15.82
	BUS PAX	8215	7611	-7.35
North Clondalkin	CARS	1328	1405	5.80
	BUSES	45	46	2.22
	BUS PAX	2766	2879	4.09
Malahide	CARS	2642	1599	-39.48
	BUSES	147	155	5.44
	BUS PAX	8981	9116	1.50
Tallaght	CARS	2280	2237	-1.89
	BUSES	90	94	4.44
	BUS PAX	5619	6318	12.44
Rathfarnham	CARS	2747	2704	-1.57
	BUSES	53	56	5.66
	BUS PAX	3321	3631	9.33
Total	CARS	30125	27222	-9.64
	BUSES	837	854	2.03
	BUS PAX	46610	49040	5.21



### **6.3 Comparative Bus and Car Journey Times in the Morning Peak Period**

**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 7 out of the 9 QBCs monitored, with significant (greater than 10%) variations on 6 QBCs.

Table 4 Comparative Bus and Car Journey Times

QUALITY BUS CORRIDOR MONITORING NOVEMBER 2003 SUMMARY OF AM PEAK COMPARATIVE BUS AND CAR JOURNEY TIMES				
Corridor	Section Measured	Bus Average Journey Time	Car Average Journey Time	% Difference
Finglas	Finglas to Dorset St Lower	<b>11:46</b>	<b>20:20</b>	<b>72.8%</b>
Stillorgan	Foxrock Church to Leeson Street	<b>29:00</b>	<b>41:22</b>	<b>42.6%</b>
Malahide	Greencastle Rd to Amiens Street	<b>23:57</b>	<b>30:39</b>	<b>28.0%</b>
Rathfarnham	Rathfarnham to Camden Street	<b>22:11</b>	<b>25:38</b>	<b>15.5%</b>
Lucan	Foxhunter to Bachelors Walk via Chapelizod Bypass	<b>31:55</b>	<b>36:31</b>	<b>14.4%</b>
Tallaght	West of M50 to Camden Street	<b>39:43</b>	<b>45:11</b>	<b>13.8%</b>
Swords	Cloghran Roundabout to Dorset St Lower	<b>44:41</b>	<b>45:08</b>	<b>1.0%</b>
Blanchardstown	Blanchardstown Bypass to North Circular Road	<b>28:51</b>	<b>27:56</b>	<b>(3.2%)</b>
North Clondalkin	Coldcut Road to Cornmarket	<b>29:41</b>	<b>23:27</b>	<b>(21.0%)</b>



## 7 Performance Indicators

### 7.1 Performance Indicators 2002 and 2003

**Table 5** shows comparative performance indicators for the years 2002 and 2003. The areas highlighted in yellow indicate those areas where performance has improved. 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 2002/2003**

QBC Performance Indicators Comparison																						
Corridor	Bus Journey Times - AM Peak		Bus Speeds AM Peak Km/h		Bus Journey Times - PM Peak		Bus Speeds PM Peak Km/h		BAC Bus Pax QBC Routes		Cars Crossing Canal Cordon		Bus Mode Share		Ave Wait Time AM Peak		Ave Wait Time Off Peak		Fleet Age Average		Low Floor Buses % Fleet	
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
	<b>Blanchardstown</b>	37:01	33:10	12.18	13.59	21:31	29:02	20.73	15.04	4912	5344	5389	5561	45.78%	46.31%	1:41	1:30	4:57	3:39	2.11	3.20	75%
Position	N/A	N/A	6	5	N/A	N/A	2	3	1	1	2	1	5	7	2	1	3	2	1	1	1	1
<b>Finglas</b>	18:09	16:53	17.43	18.74	25:09	24:54	12.11	12.54	1832	1437	4632	5000	54.16%	50.88%	2:56	4:54	5:10	4:03	6.49	7.16	26%	8%
Position	N/A	N/A	2	3	N/A	N/A	6	6	9	9	3	3	3	4	5	8	5	4	9	9	5	8
<b>Lucan</b>	31:33	25:45	19.64	24.07	29:51	28:04	22.44	23.86	4688	5139	6562	5393	45.62%	52.92%	2:21	1:49	5:03	5:06	4.33	3.63	19%	40%
Position	N/A	N/A	1	1	N/A	N/A	1	1	3	2	1	2	6	3	4	3	4	7	5	3	7	5
<b>Malahide</b>	28:23	27:36	12.97	13.34	37:17	34:57	10.28	10.96	4796	4750	2232	1599	68.20%	72.92%	1:46	2:10	3:28	2:27	3.19	3.40	42%	59%
Position	N/A	N/A	5	6	N/A	N/A	7	7	2	3	6	7	1	1	3	4	1	1	3	2	3	3
<b>North Clondalkin</b>	19:15	19:48	11.17	10.86	33:47	31:37	7.95	8.49	1972	2283	1270	1405	61.04%	60.79%	3:34	7:01	4:05	5:25	6.05	5.87	0%	0%
Position	N/A	N/A	7	9	N/A	N/A	9	9	8	8	8	8	2	2	6	9	2	9	8	8	9	9
<b>Rathfarnham</b>	48:53	30:46	7.48	11.89	43:48	43:14	8.72	9.00	2129	2420	2647	2704	42.48%	44.08%	6:57	4:07	12:18	4:58	4.67	4.90	25%	27%
Position	N/A	N/A	9	7	N/A	N/A	8	8	7	7	5	5	8	8	9	7	9	6	6	6	6	6
<b>Stillorgan</b>	32:55	29:00	16.74	19.00	36:31	29:16	15.40	19.21	4483	4704	3674	3323	44.38%	46.76%	1:01	1:39	5:54	3:59	2.91	4.07	51%	51%
Position	N/A	N/A	3	2	N/A	N/A	3	2	4	4	4	4	7	6	1	2	7	3	2	4	2	4
<b>Swords</b>	57:11	61:32	14.86	13.81	71:30	66:52	13.14	12.63	2242	2905	4632	5000	54.16%	50.88%	4:04	3:32	6:15	4:25	4.17	5.41	17%	19%
Position	N/A	N/A	4	4	N/A	N/A	4	5	6	6	3	3	3	4	8	6	8	5	4	7	8	7
<b>Tallaght</b>	50:07	39:43	9.06	11.43	38:21	36:46	12.18	12.70	3560	4115	2175	2237	49.25%	50.29%	2:59	2:35	5:22	5:18	5.59	4.10	38%	61%
Position	N/A	N/A	8	8	N/A	N/A	5	4	5	5	7	6	4	5	6	5	6	8	7	5	4	2
<b>Totals for 9 QBCs</b>	N/A	N/A	12.96	14.74	N/A	N/A	13.09	13.32	30659	33142	28581	27222	50.94%	52.44%	3:02	3:15	5:50	4:22	3.95	4.20	38%	47%
<b>QBC Specification</b>	N/A	N/A	17.60	17.60	N/A	N/A	17.60	17.60	N/A	N/A	N/A	N/A	N/A	N/A	3:00	3:00	4:00	4:00	5.00	5.00	100%	100%

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

Items highlighted indicate an improvement in the last 12 months

## 8 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**

Mode Share - November 2003															
Corridor	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>Stillorgan</b> (Car Occupancy)	6248	<b>46.76%</b>	3888 1.17	29.10%	206	1.54%	41	0.31%	173	1.29%	449	3.36%	2358	17.65%	<b>13363</b>
<b>Lucan</b> (Car Occupancy)	8474	<b>52.92%</b>	6472 1.20	40.41%	131	0.82%	451	2.82%	223	1.39%	130	0.81%	133	0.83%	<b>16014</b>
<b>Blanchardstown</b> (Car Occupancy)	8153	<b>46.31%</b>	7062 1.27	40.11%	155	0.88%	229	1.30%	254	1.44%	262	1.49%	1492	8.47%	<b>17607</b>
<b>Malahide</b> (Car Occupancy)	9145	<b>72.92%</b>	1966 1.23	15.68%	236	1.88%	37	0.30%	154	1.23%	359	2.86%	645	5.14%	<b>12542</b>
<b>Tallaght</b> (Car Occupancy)	6480	<b>50.29%</b>	2818 1.26	21.87%	79	0.61%	32	0.25%	181	1.40%	714	5.54%	2581	20.03%	<b>12885</b>
<b>Swords/Finglas</b> (Car Occupancy)	8422	<b>50.88%</b>	6050 1.21	36.55%	152	0.92%	264	1.59%	179	1.08%	222	1.34%	1264	7.64%	<b>16553</b>
<b>Rathfarnham</b> (Car Occupancy)	3648	<b>44.08%</b>	3273 1.21	39.55%	103	1.24%	55	0.66%	241	2.91%	397	4.80%	559	6.75%	<b>8276</b>
<b>North Clondalkin</b> (Car Occupancy)	3061	<b>60.79%</b>	1672 1.19	33.21%	33	0.66%	70	1.39%	68	1.35%	39	0.77%	92	1.83%	<b>5035</b>
<b>QBC Totals</b>	<b>53631</b>	<b>52.44%</b>	<b>33201</b> 1.22	<b>32.46%</b>	<b>1095</b>	<b>1.07%</b>	<b>1179</b>	<b>1.15%</b>	<b>1473</b>	<b>1.44%</b>	<b>2572</b>	<b>2.51%</b>	<b>9124</b>	<b>8.92%</b>	<b>102275</b>

**Table 6a Non QBC Cordon Points**

Mode Share - November 2003															
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>Dolphins Barn</b> (Car Occupancy)	4949	<b>59.06%</b>	2759 1.14	32.93%	65	0.78%	184	2.20%	107	1.28%	116	1.38%	199	2.37%	<b>8379</b>
<b>Phibsborough Rd</b> (Car Occupancy)	2152	<b>30.17%</b>	3571 1.26	50.06%	136	1.91%	118	1.65%	92	1.29%	180	2.52%	884	12.39%	<b>7133</b>
<b>Charlemount</b> (Car Occupancy)	1558	<b>30.90%</b>	1686 1.20	33.44%	50	0.99%	30	0.60%	97	1.92%	338	6.70%	1283	25.45%	<b>5042</b>
<b>Mount Street</b> (Car Occupancy)	1184	<b>25.59%</b>	2781 1.35	60.10%	50	1.08%	28	0.61%	49	1.06%	113	2.44%	422	9.12%	<b>4627</b>
<b>South Circular Rd</b> (Car Occupancy)	983	<b>23.81%</b>	2637 1.23	63.88%	36	0.87%	58	1.41%	52	1.26%	95	2.30%	267	6.47%	<b>4128</b>
<b>Charleville Road</b> (Car Occupancy)	829	<b>44.14%</b>	867 1.26	46.17%	12	0.64%	10	0.53%	15	0.80%	41	2.18%	104	5.54%	<b>1878</b>
<b>Baggot Street</b> (Car Occupancy)	777	<b>15.78%</b>	2489 1.16	50.55%	95	1.93%	29	0.59%	96	1.95%	162	3.29%	1276	25.91%	<b>4924</b>
<b>Ballybough Rd</b> (Car Occupancy)	846	<b>14.16%</b>	4379 1.17	73.28%	29	0.49%	60	1.00%	88	1.47%	166	2.78%	408	6.83%	<b>5976</b>
<b>Barrow Street</b> (Car Occupancy)	633	<b>17.84%</b>	2299 1.24	64.80%	59	1.66%	108	3.04%	64	1.80%	130	3.66%	255	7.19%	<b>3548</b>
<b>Clogher Road</b> (Car Occupancy)	250	<b>7.76%</b>	2510 1.20	77.88%	25	0.78%	32	0.99%	50	1.55%	114	3.54%	242	7.51%	<b>3223</b>
<b>Non QBC Totals</b> (Car Occupancy)	<b>14161</b>	<b>28.98%</b>	<b>25978</b> 1.21	<b>53.17%</b>	<b>557</b>	<b>1.14%</b>	<b>657</b>	<b>1.34%</b>	<b>710</b>	<b>1.45%</b>	<b>1455</b>	<b>2.98%</b>	<b>5340</b>	<b>10.93%</b>	<b>48858</b>
<b>QBC Totals</b> (Car Occupancy)	<b>53631</b>	<b>52.44%</b>	<b>33201</b> 1.22	<b>32.46%</b>	<b>1095</b>	<b>1.07%</b>	<b>1179</b>	<b>1.15%</b>	<b>1473</b>	<b>1.44%</b>	<b>2572</b>	<b>2.51%</b>	<b>9124</b>	<b>8.92%</b>	<b>102275</b>
<b>All Bus Crossings</b> (Car Occupancy)	<b>67792</b>	<b>44.86%</b>	<b>59179</b> 1.22	<b>39.16%</b>	<b>1652</b>	<b>1.09%</b>	<b>1836</b>	<b>1.21%</b>	<b>2183</b>	<b>1.44%</b>	<b>4027</b>	<b>2.66%</b>	<b>14464</b>	<b>9.57%</b>	<b>151133</b>



**Table 6b Non Bus Cordon Points & Cordon Totals**

Mode Share - November 2003															
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%	2028 1.22	57.65%	65	1.85%	27	0.77%	69	1.96%	88	2.50%	1241	35.28%	<b>3516</b>
<b>Huband Bridge</b> (Car Occupancy)	0	0%	467 1.22	50.32%	20	2.16%	5	0.54%	38	4.09%	76	8.19%	322	34.70%	<b>928</b>
<b>Herberton Bridge</b> (Car Occupancy)	0	0%	3129 1.21	86.96%	42	1.17%	67	1.86%	52	1.45%	105	2.92%	203	5.64%	<b>3598</b>
<b>Kilmainham Lane</b> (Car Occupancy)	0	0%	350 1.22	75.76%	8	1.73%	4	0.87%	12	2.60%	32	6.93%	56	12.12%	<b>462</b>
<b>Phoenix Park Main</b> (Car Occupancy)	0	0%	1864 1.20	83.48%	12	0.54%	6	0.27%	120	5.37%	119	5.33%	112	5.02%	<b>2233</b>
<b>Phoenix Park Back</b> (Car Occupancy)	0	0%	1809 1.22	95.01%	5	0.26%	6	0.32%	26	1.37%	23	1.21%	35	1.84%	<b>1904</b>
<b>Annamore Road</b> (Car Occupancy)	0	0%	633 1.22	78.05%	13	1.60%	8	0.99%	16	1.97%	28	3.45%	113	13.93%	<b>811</b>
<b>Royal Canal Bank</b> (Car Occupancy)	0	0%	328 1.65	65.46%	9	1.81%	0	0.00%	30	6.02%	57	11.45%	76	15.26%	<b>498</b>
<b>Russell Street</b> (Car Occupancy)	0	0%	1492 1.22	84.25%	14	0.78%	37	2.09%	33	1.86%	60	3.39%	135	7.62%	<b>1771</b>
<b>Ossory Road</b> (Car Occupancy)	0	0%	194 1.00	40.17%	10	2.07%	3	0.62%	8	1.66%	28	5.80%	240	49.69%	<b>483</b>
<b>Sheriff St Lower</b> (Car Occupancy)	0	0%	1820 1.13	85.13%	22	1.03%	96	4.49%	40	1.87%	22	1.03%	138	6.45%	<b>2138</b>
<b>North Wall Quay</b> (Car Occupancy)	0	0%	410 1.22	33.77%	6	0.49%	558	45.96%	24	1.98%	46	3.79%	170	14.00%	<b>1214</b>
<b>Non Bus Totals</b> (Car Occupancy)	<b>0</b>	<b>0%</b>	<b>14522</b> 1.21	<b>74.25%</b>	<b>226</b>	<b>1.16%</b>	<b>817</b>	<b>4.18%</b>	<b>468</b>	<b>2.39%</b>	<b>684</b>	<b>3.50%</b>	<b>2841</b>	<b>14.53%</b>	<b>19558</b>
<b>Non QBC Totals</b> (Car Occupancy)	<b>14161</b>	<b>28.98%</b>	<b>25978</b> 1.21	<b>53.17%</b>	<b>557</b>	<b>1.14%</b>	<b>657</b>	<b>1.34%</b>	<b>710</b>	<b>1.45%</b>	<b>1455</b>	<b>2.98%</b>	<b>5340</b>	<b>10.93%</b>	<b>48858</b>
<b>QBC Totals</b> (Car Occupancy)	<b>53631</b>	<b>52.44%</b>	<b>33201</b> 1.22	<b>32.46%</b>	<b>1095</b>	<b>1.07%</b>	<b>1179</b>	<b>1.15%</b>	<b>1473</b>	<b>1.44%</b>	<b>2572</b>	<b>2.51%</b>	<b>9124</b>	<b>8.92%</b>	<b>102275</b>
<b>All Bus Crossings</b> (Car Occupancy)	<b>67792</b>	<b>44.86%</b>	<b>59179</b> 1.22	<b>39.16%</b>	<b>1652</b>	<b>1.09%</b>	<b>1836</b>	<b>1.21%</b>	<b>2183</b>	<b>1.44%</b>	<b>4027</b>	<b>2.66%</b>	<b>14464</b>	<b>9.57%</b>	<b>151133</b>
<b>All Crossings</b> (Car Occupancy)	<b>67792</b>	<b>39.72%</b>	<b>73701</b> 1.21	<b>43.18%</b>	<b>1878</b>	<b>1.10%</b>	<b>2653</b>	<b>1.55%</b>	<b>2651</b>	<b>1.55%</b>	<b>4711</b>	<b>2.76%</b>	<b>17305</b>	<b>10.14%</b>	<b>170691</b>

## 9 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 2003 with 2002 and 2003 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 2003						
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		
		AM Peak Inbound				
		<b>19.00 km/h</b>				
		Off Peak Inbound				
	Foxrock Church to Leeson Street	<b>20.24 km/h</b>		Foxrock Church to Leeson Street		
	Foxrock Church to Leeson Street	PM Peak Outbound		Leeson Street to Foxrock Church		
	Leeson Street to Foxrock Church	<b>19.21 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		
		AM Peak Inbound	Off Peak Inbound	Foxrock Church to Fleet Street		
		<b>16.17 km/h</b>	<b>N/A</b>			
		Foxrock Church to Fleet Street	PM Peak Outbound			
			<b>18.06 km/h</b>			
				% 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 ANNUAL REPORT  
STILLORGAN  
NOVEMBER 2003**

A	INFRASTRUCTURE OBJECTIVES		PERFORMANCE INDICATORS				NOTES
4	Corridor to have segregated bus lanes where physically feasible		% Segregated		% Non Segregated		Foxrock Church to Westmoreland Street Inbound
			Inbound	Outbound	Inbound	Outbound	
			<b>79%</b>	<b>73%</b>	<b>21%</b>	<b>27%</b>	D'Olier Street to Foxrock Church Outbound
5	Bus Journey Times (Average)	AM Peak Inbound	<b>AM Peak</b>				
	<b>Foxrock Church to Leeson Street</b>		<b>29:00</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>27:38</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>29:16</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>		
			AM Peak		AM Peak		
	<b>Foxrock Church to Leeson Street</b>		<b>29:00</b>		<b>41:22</b>		<b>Foxrock Church to Leeson Street</b>
5	Comparable Bus v Car Journey Times (Average)	Off Peak Inbound	<b>Bus</b>		<b>Car</b>		
			Off Peak		Off Peak		
	<b>Foxrock Church to Leeson Street</b>		<b>27:38</b>		<b>22:27</b>		<b>Foxrock Church to Leeson Street</b>
5	Comparable Bus v Car Journey Times (Average)	PM Peak Outbound	<b>Bus</b>		<b>Car</b>		
			PM Peak		PM Peak		
	<b>Morehampton Road to Foxrock Church</b>		<b>23:26</b>		<b>25:42</b>		<b>Morehampton Road to Foxrock Church</b>

**QUALITY BUS CORRIDOR MONITORING ANNUAL REPORT  
STILLORGAN  
NOVEMBER 2003**

A	INFRASTRUCTURE OBJECTIVES		PERFORMANCE INDICATORS				NOTES
5	Bus Sectional Journey Times (Range)	AM Peak	<b>AM Peak</b>				
			Low		High		
	<b>Foxrock Church to Leeson Street</b>		<b>24:56</b>	<b>33:12</b>		<b>Foxrock Church to Leeson Street</b>	
5	Bus Sectional Journey Times (Range)	Off Peak	<b>Off Peak</b>				
			Low		High		
	<b>Foxrock Church to Leeson Street</b>		<b>25:25</b>	<b>30:04</b>		<b>Foxrock Church to Leeson Street</b>	
5	Bus Sectional Journey Times (Range)	PM Peak	<b>PM Peak</b>				
			Low		High		
	<b>Leeson Street to Foxrock Church</b>		<b>23:34</b>	<b>33:40</b>		<b>Leeson Street to Foxrock Church</b>	
5	Comparable Bus v Car Journey Times (Range)	AM Peak	<b>Bus</b>		<b>Car</b>		
			AM Peak		AM Peak		
			Low	High	Low	High	
	<b>Foxrock Church to Leeson Street</b>		<b>24:56</b>	<b>33:12</b>	<b>25:14</b>	<b>68:02</b>	<b>Foxrock Church to Leeson Street</b>
5	Comparable Bus v Car Journey Times (Range)	Off Peak	<b>Bus</b>		<b>Car</b>		
			Off Peak		Off Peak		
			Low	High	Low	High	
	<b>Foxrock Church to Leeson Street</b>		<b>25:25</b>	<b>30:04</b>	<b>17:44</b>	<b>26:53</b>	<b>Foxrock Church to Leeson Street</b>

QUALITY BUS CORRIDOR MONITORING ANNUAL REPORT STILLORGAN NOVEMBER 2003						
A	INFRASTRUCTURE OBJECTIVES	PERFORMANCE INDICATORS				NOTES
5	Comparable Bus v Car Journey Times PM Peak (Range)	Bus		Car		Morehampton Road to Foxrock Church
		PM Peak		PM Peak		
	Low	High	Low	High		
	Morehampton Road to Foxrock Church	<b>18:47</b>	<b>29:00</b>	<b>15:34</b>	<b>41:07</b>	
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 ANNUAL REPORT  
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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>	

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<b>B</b>	<b>SERVICE OBJECTIVES</b>	<b>PERFORMANCE INDICATORS</b>		<b>NOTES</b>
1 1a  1b  1c  1d	Passenger Wait Times Average Peak Wait Time	Target	Actual	
		<b>3 minutes</b>	<b>1:39</b>	
	Average Peak Excess Wait Time	Target	Actual	
		<b>2 minutes</b>	<b>0</b>	
	Average Off Peak Wait Time	Target	Actual	
		<b>4 minutes</b>	<b>3:59</b>	
	Average Off Peak Excess Wait Time	Target	Actual	
		<b>2 minutes</b>	<b>0</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>	
<b>C</b>	<b>FLEET OBJECTIVES</b>	<b>PERFORMANCE INDICATORS</b>		<b>NOTES</b>
2	Average Fleet age	Average Fleet age		
		<b>4.07</b>		
2a	Maximum Fleet age	Maximum Fleet age		
		<b>11</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 ANNUAL REPORT STILLORGAN NOVEMBER 2003			
C	FLEET OBJECTIVES	PERFORMANCE INDICATORS	NOTES
5	QBC to be operated by branded vehicles	% of branded vehicles	City Swift
		<b>43%</b>	

D	NETWORK PERFORMANCE	PERFORMANCE INDICATORS				NOTES
1	Assess & Quantify the Effect of QBC on all Modes (Time Series Analysis)	% Mode share				Car Occupancy 1.17 from DCC Survey November 2003
		Car		Bus		
		Nov-02	Nov-03	Nov-02	Nov-03	
		<b>32.40%</b>	<b>29.10%</b>	<b>44.39%</b>	<b>46.76%</b>	
		Taxi		Cycle		
		Nov-02	Nov-03	Nov-02	Nov-03	
		<b>0.83%</b>	<b>1.54%</b>	<b>5.00%</b>	<b>3.36%</b>	
		Walking		Total Persons		
		Nov-02	Nov-03	Nov-02	Nov-03	
		<b>14.26%</b>	<b>17.65%</b>	<b>13606</b>	<b>13363</b>	

QUALITY BUS CORRIDOR MONITORING ANNUAL REPORT STILLORGAN NOVEMBER 2003						
D	NETWORK PERFORMANCE	PERFORMANCE INDICATORS				NOTES
2	Assess the before & after impact of QBC on all Modes (Pre & Post QBC Analysis)	% Mode share				November 2003 Cordon Count includes all bus passengers Pre QBC November 1998 Cordon Count includes Dublin Bus passengers only Car Occupancy 1.17 from DCC Survey November 2003
		Car		Bus		
		Pre QBC	Post QBC	Pre QBC	Post QBC	
		<b>54.36%</b>	<b>29.10%</b>	<b>23.78%</b>	<b>46.76%</b>	
		Taxi		Cycle		
		Pre QBC	Post QBC	Pre QBC	Post QBC	
		<b>N/A</b>	<b>1.54%</b>	<b>3.60%</b>	<b>3.36%</b>	
Walking		Total Persons				
Pre QBC	Post QBC	Pre QBC	Post QBC			
<b>16.40%</b>	<b>17.65%</b>	<b>10174</b>	<b>13363</b>			
E	ADDITIONAL OBJECTIVES	PERFORMANCE INDICATORS				NOTES
1	Passenger Journeys (Total)	Nov-02		Nov-03		Cordon Counts (0700 - 1000) BAC QBC Designated Routes
		<b>4483</b>		<b>4704</b>		
2	Bus Occupancy Levels (Average)	Peak		Off Peak		Survey at Donnybrook on Inbound Journeys
		<b>50</b>		<b>30</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>						

## **10 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 2003									
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 Range	24:49 20:15 to 31:55	N/A N/A	16:34 15:08 to 17:47	N/A N/A	31:00 27:16 to 34:43	N/A N/A	16:39 16:39	N/A N/A
Blakestown Way to Rear of Shopping C'tre (Peak)	Average Range	3:42 2:30 to 7:57	2:49 1:16 to 4:10	N/A N/A	N/A N/A	N/A N/A	2:51 2:28 to 3:35	N/A N/A	N/A N/A
Coolmine Road to Blakestown Way	Average Range	N/A N/A	N/A N/A	11:39 9:33 to 16:13	N/A N/A	N/A N/A	N/A N/A	10:48 8:46 to 12:44	N/A N/A
Blanchardstown Road South to Coolmine Rd	Average Range	4:54 2:17 to 11:39	N/A N/A	N/A N/A	N/A N/A	3:13 2:15 to 4:15	N/A N/A	N/A N/A	N/A N/A
Rear of Shopping Centre to River Rd R'bt (Peak)	Average Range	4:50 3:20 to 9:55	13:33 12:13 to 14:52	N/A N/A	N/A N/A	N/A N/A	3:44 1:30 to 6:11	N/A N/A	N/A N/A
Coolmine Road to River Road Rbt	Average Range	11:17 5:03 to 21:31	N/A N/A	7:48 4:45 to 10:14	5:46 2:12 to 7:36	8:18 5:23 to 10:23	N/A N/A	2:38 2:38	N/A N/A
River Road Rbt to New River Road	Average Range	3:32 1:11 to 6:51	2:06 2:06	3:19 1:13 to 4:25	5:10 2:05 to 8:05	0:41 0:38 to 0:47	1:06 0:43 to 1:22	N/A N/A	N/A N/A
New River Road to Ashtown Roundabout	Average Range	3:11 1:56 to 7:09	2:43 1:37 to 9:18	1:54 1:10 to 4:20	1:54 0:11 to 10:16	4:23 4:23	N/A N/A	1:56 1:56	N/A N/A
Ashtown Roundabout to Ratoath Road	Average Range	7:38 2:59 to 14:19	N/A N/A	6:37 4:20 to 11:32	6:05 4:00 to 10:16	4:00 3:35 to 4:28	N/A N/A	10:25 8:42 to 12:06	N/A N/A
Ashtown R'bout to Old Cabra Rd/Nth Circular	Average Range	13:46 6:31 to 20:55	10:17 4:53 to 18:55	9:34 5:53 to 12:38	8:14 4:48 to 10:50	6:45 4:55 to 10:07	N/A N/A	13:10 12:08 to 14:59	N/A N/A

Table 8a Blanchardstown QBC (continued)

Blanchardstown QBC Roadside Survey Results - November 2003									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Ratoath Rd to Old Cabra Rd/North Circular Rd	Average Range	6:18 1:20 to 10:56	N/A N/A	2:50 0:40 to 8:18	1:32 0:27 to 2:41	2:34 1:10 to 6:32	1:13 1:00 to 1:24	2:59 1:56 to 3:26	N/A N/A
Old Cabra Rd/North Circular Rd to Manor St	Average Range	4:09 2:03 to 6:56	N/A N/A	4:19 2:49 to 6:24	3:37 1:11 to 6:32	1:31 0:43 to 3:03	N/A N/A	2:52 1:56 to 4:08	2:23 0:33 to 3:45
Manor Street to Blackhall Place/Bridge	Average Range	4:23 2:08 to 8:33	N/A N/A	4:04 1:36 to 5:54	N/A N/A	5:29 2:35 to 8:00	4:55 3:36 to 6:13	3:08 2:26 to 4:58	2:30 2:01 to 3:07
Blackhall Place to Capel Street	Average Range	6:24 3:52 to 9:33	N/A N/A	N/A N/A	N/A N/A	5:00 3:39 to 6:47	N/A N/A	N/A N/A	N/A N/A
Merchants Quay to Manor Street	Average Range	N/A N/A	N/A N/A	11:37 8:57 to 13:52	9:16 9:12 to 9:20	N/A N/A	N/A N/A	8:14 5:45 to 10:58	N/A N/A
Capel Street to Tara Street	Average Range	11:45 8:10 to 18:09	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Hawkins St to Merchants Quay/Winetavern St	Average Range	N/A N/A	N/A N/A	9:37 5:46 to 13:38	N/A N/A	N/A N/A	N/A N/A	6:02 4:12 to 8:01	N/A N/A
Merchants Quay to Blackhall Bridge	Average Range	N/A N/A	N/A N/A	7:42 5:26 to 10:20	N/A N/A	N/A N/A	N/A N/A	5:05 3:19 to 6:26	N/A N/A

Table 8b Finglas QBC

Finglas QBC Roadside Survey Results - November 2003									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Mallowes Bridge to Finglas	Average	4:38	N/A	2:25	N/A	2:59	N/A	N/A	N/A
	Range	2:33 to 7:14	N/A	2:25	N/A	2:14 to 4:02	N/A	N/A	N/A
Finglas to Prospect Road/Whitworth Rd	Average	8:01	17:27	8:09	12:00	5:36	8:44	7:17	4:39
	Range	4:05 to 11:09	8:00 to 24:54	5:04 to 12:22	5:34 to 18:01	4:22 to 6:43	7:04 to 10:43	6:23 to 8:04	2:43 to 6:49
Whitworth Rd to Dorset Street Lower	Average	4:08	2:53	8:48	3:48	7:56	2:18	5:00	3:18
	Range	1:51 to 8:03	1:40 to 4:48	5:35 to 11:19	2:50 to 5:11	2:57 to 14:01	1:59 to 2:54	5:00	2:59 to 3:54
Dorset Street to Parnell Square East	Average	5:11	N/A	N/A	N/A	6:11	N/A	N/A	N/A
	Range	2:56 to 8:02	N/A	N/A	N/A	3:00 to 11:45	N/A	N/A	N/A
Parnell Street to Dorset Street	Average	N/A	N/A	9:05	N/A	N/A	N/A	N/A	N/A
	Range	N/A	N/A	8:55 to 9:15	N/A	N/A	N/A	N/A	N/A

Table 8c Lucan QBC

Lucan QBC Roadside Survey Results - November 2003									
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
Lucan Superquinn to Penny Hill Pub	Average Range	17:04 10:45 to 26:32	N/A N/A	15:32 10:53 to 23:09	N/A N/A	12:18 11:11 to 13:08	N/A N/A	N/A N/A	N/A N/A
Penny Hill Pub to Foxhunter	Average Range	12:51 4:36 to 23:37	8:59 2:39 to 23:54	3:17 2:15 to 4:38	N/A N/A	4:59 4:31 to 5:43	3:07 2:50 to 3:18	2:00 2:00	N/A N/A
Foxhunter to West of M50	Average Range	4:03 1:56 to 6:48	N/A N/A	4:06 2:08 to 5:21	N/A N/A	2:48 1:39 to 4:08	2:04 1:26 to 2:28	3:16 2:06 to 4:58	N/A N/A
West of M50 to Palmerston	Average Range	3:36 2:02 to 6:47	N/A N/A	5:40 4:23 to 7:27	N/A N/A	N/A N/A	N/A N/A	5:09 3:00 to 6:11	N/A N/A
West of M50 to Chapelizod Slip Rd	Average Range	6:17 3:45 to 10:01	N/A N/A	N/A N/A	N/A N/A	5:41 4:43 to 6:45	N/A N/A	N/A N/A	N/A N/A
Palmerston to Chapelizod Slip Rd	Average Range	2:46 1:22 to 4:06	N/A N/A	6:10 3:33 to 8:23	N/A N/A	N/A N/A	N/A N/A	2:21 1:58 to 2:24	N/A N/A
Chapelizod Slip Rd to Conyngham Road	Average Range	8:27 5:24 to 11:50	N/A N/A	8:24 6:00 to 11:57	N/A N/A	6:03 5:21 to 6:58	10:57 10:57	6:10 5:33 to 7:08	N/A N/A
Chapelizod Slip Rd to Con Colbert Rd (Exp)	Average Range	3:01 2:29 to 3:59	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Con Colbert Road to Heuston Station (Exp)	Average Range	4:07 1:56 to 6:05	3:58 1:48 to 7:33	2:46 1:52 to 3:45	2:33 1:00 to 5:23	N/A N/A	N/A N/A	N/A N/A	2:49 1:07 to 6:54
Heuston Station to Ellis Quay (Exp)	Average Range	4:52 2:50 to 10:13	4:20 1:28 to 8:00	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A

Table 8c Lucan QBC (continued)

Lucan QBC Roadside Survey Results - November 2003									
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
Conyngham Road to Parkgate Street	Average	2:31	N/A	N/A	N/A	3:05	4:07	N/A	N/A
	Range	1:05 to 4:30	N/A	N/A	N/A	1:36 to 4:58	4:07	N/A	N/A
Con Colbert Road to Ellis Quay (Exp)	Average	8:54	8:42	N/A	N/A	N/A	N/A	N/A	N/A
	Range	5:06 to 14:27	4:10 to 13:41	N/A	N/A	N/A	N/A	N/A	N/A
Parkgate Street to Ellis Quay	Average	4:34	4:44	N/A	N/A	2:37	2:15	N/A	N/A
	Range	1:48 to 9:55	3:38 to 5:09	N/A	N/A	1:09 to 3:41	1:54 to 3:05	N/A	N/A
Ellis Quay to Arran Quay	Average	4:31	3:58	N/A	N/A	3:58	4:40	N/A	N/A
	Range	1:41 to 10:11	1:58 to 7:17	N/A	N/A	3:20 to 4:27	2:28 to 6:02	N/A	N/A
Arran Quay to Bachelors Walk	Average	6:32	8:25	N/A	N/A	5:53	7:33	N/A	N/A
	Range	4:24 to 9:33	4:29 to 14:51	N/A	N/A	5:14 to 6:31	5:39 to 9:31	N/A	N/A
Wellington Quay to Merchants Quay	Average	N/A	N/A	2:44	3:50	N/A	N/A	2:18	1:39
	Range	N/A	N/A	1:36 to 5:40	2:23 to 5:50	N/A	N/A	1:13 to 3:06	0:48 to 2:36
Merchants Quay to Heuston Station (Exp)	Average	N/A	N/A	4:44	4:40	N/A	N/A	N/A	5:57
	Range	N/A	N/A	3:28 to 6:05	3:30 to 5:49	N/A	N/A	N/A	3:34 to 8:20
Merchants Quay to Conyngham Road	Average	N/A	N/A	7:51	N/A	N/A	N/A	6:58	N/A
	Range	N/A	N/A	4:57 to 10:29	N/A	N/A	N/A	5:08 to 12:36	N/A

Code:

Exp - Expresso Services



Table 8d Malahide QBC

Malahide QBC Roadside Survey Results - November 2003									
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	3:50 0:56 to 8:36	N/A N/A	3:46 2:38 to 6:42	19:25 5:17 to 34:40	1:19 1:00 to 2:07	N/A N/A	3:56 3:35 to 4:36	N/A N/A
Priorswood Rd to Greencastle Rd (Direct)	Average Range	1:40 0:45 to 2:53	2:28 1:36 to 4:23	3:40 1:59 to 5:32	N/A N/A	2:44 2:42 to 2:46	N/A N/A	2:57 2:35 to 3:13	2:26 1:38 to 2:58
Priorswood Rd to Greencastle Rd (Darndale)	Average Range	14:15 11:37 to 19:15	N/A N/A	13:50 9:37 to 16:39	N/A N/A	12:49 10:18 to 14:53	N/A N/A	10:47 8:45 to 12:33	N/A N/A
Greencastle Road to Kilmore Road	Average Range	6:23 3:04 to 10:35	9:09 3:50 to 17:40	4:12 1:26 to 7:56	5:36 4:33 to 6:38	4:52 3:50 to 5:23	3:40 1:41 to 6:10	4:12 3:24 to 4:48	3:19 2:12 to 4:16
Kilmore Road to St Davids Wood	Average Range	2:00 0:29 to 4:28	1:20 0:13 to 4:36	N/A N/A	N/A N/A	0:40 0:14 to 1:15	0:33 0:10 to 0:59	N/A N/A	N/A N/A
St Davids Wood to Collins Avenue	Average Range	3:22 1:37 to 5:48	5:22 1:19 to 16:34	N/A N/A	N/A N/A	2:16 1:32 to 3:01	1:40 1:09 to 2:36	N/A N/A	N/A N/A
Collins Avenue to Casino Park	Average Range	3:54 1:44 to 5:54	2:47 1:08 to 4:47	N/A N/A	N/A N/A	1:44 1:01 to 2:54	1:14 0:47 to 1:59	N/A N/A	N/A N/A
Casino Park to Fairview	Average Range	2:34 1:14 to 3:52	2:04 0:53 to 3:31	N/A N/A	N/A N/A	1:39 1:14 to 1:52	1:57 1:42 to 2:16	N/A N/A	N/A N/A
Fairview to Amiens Street/North Strand	Average Range	6:49 4:29 to 9:28	9:22 4:07 to 17:40	5:56 3:22 to 7:49	4:29 2:13 to 6:23	5:55 5:18 to 6:31	4:59 3:33 to 6:16	16:16 13:43 to 20:00	N/A N/A
Amiens Street/North Strand to Talbot Street	Average Range	2:49 1:30 to 4:05	N/A N/A	12:38 3:48 to 33:06	N/A N/A	1:53 1:03 to 3:20	N/A N/A	8:42 3:29 to 16:03	N/A N/A
Collins Avenue to Kilmore Road	Average Range	N/A N/A	N/A N/A	4:19 2:03 to 6:19	4:04 2:26 to 5:26	N/A N/A	N/A N/A	3:27 2:29 to 4:56	3:14 1:55 to 5:52
Griffith Avenue to Collins Avenue	Average Range	N/A N/A	N/A N/A	2:33 1:42 to 3:27	3:47 1:16 to 6:57	N/A N/A	N/A N/A	2:32 1:14 to 4:05	1:40 1:28 to 1:51
Fairview to Griffith Avenue	Average Range	N/A N/A	N/A N/A	3:52 1:54 to 7:51	3:55 2:17 to 5:27	N/A N/A	N/A N/A	1:49 1:02 to 2:36	1:23 1:02 to 1:44

Table 8e North Clondalkin QBC

North Clondalkin QBC Roadside Survey Results - November 2003									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Fonthill Road to Coldcut Road	Average Range	14:25 6:26 to 29:37	13:47 10:54 to 16:48	13:38 11:29 to 16:22	18:09 14:46 to 23:20	9:00 6:46 to 12:17	N/A N/A	11:25 9:30 to 13:57	N/A N/A
Coldcut Road to Ballyfermot/Le Fanu	Average Range	6:19 3:43 to 11:33	5:34 1:39 to 11:16	16:22 9:49 to 22:26	14:31 7:07 to 23:53	5:04 4:20 to 7:04	4:11 3:42 to 5:18	7:40 5:53 to 9:25	6:52 5:22 to 8:30
Ballyfermot/Le Fanu to Ballyfermot/Kylemore	Average Range	2:31 0:48 to 5:22	5:21 2:16 to 9:35	5:06 1:20 to 17:55	5:57 3:53 to 7:09	1:59 1:36 to 2:45	3:42 2:18 to 4:45	1:44 1:21 to 2:09	3:47 3:16 to 4:08
Ballyfermot/Kylemore to Emmet Road	Average Range	7:21 4:54 to 11:19	4:04 2:27 to 7:36	9:29 6:55 to 14:26	6:14 4:28 to 7:06	5:19 4:07 to 6:30	4:17 3:53 to 4:59	5:06 4:52 to 5:20	3:22 3:17 to 3:26
Emmet Rd to South Circular Road	Average Range	2:33 1:12 to 5:57	1:54 0:50 to 2:48	5:22 2:08 to 9:27	4:47 1:10 to 8:46	2:33 1:54 to 3:00	1:26 0:40 to 2:31	2:41 1:49 to 3:58	1:55 1:16 to 2:56
South Circular Road to Mount Brown/James St	Average Range	4:10 2:24 to 8:29	3:26 1:29 to 7:39	8:47 4:26 to 11:32	7:17 3:39 to 10:46	2:56 1:42 to 4:22	2:18 1:34 to 3:12	8:00 6:48 to 8:47	5:39 4:30 to 7:31
Mount Brown / James St to Cornmarket	Average Range	7:20 3:30 to 17:59	5:59 1:56 to 14:53	3:55 1:40 to 6:14	4:58 2:01 to 8:44	5:20 3:01 to 8:08	3:54 2:42 to 4:51	3:28 2:30 to 4:30	1:42 0:58 to 2:51
Cornmarket to Westmoreland Street	Average Range	9:12 5:11 to 14:51	N/A N/A	N/A N/A	N/A N/A	7:25 5:44 to 8:56	N/A N/A	N/A N/A	N/A N/A
Aston Quay to Bridge Street	Average Range	N/A N/A	N/A N/A	11:21 6:30 to 19:11	11:40 10:21 to 14:14	N/A N/A	N/A N/A	4:37 4:05 to 5:11	N/A N/A
Bridge Street to Cornmarket	Average Range	N/A N/A	N/A N/A	2:11 1:06 to 3:44	1:26 0:45 to 2:53	N/A N/A	N/A N/A	1:51 1:26 to 2:11	1:37 0:40 to 2:35

Table 8f Rathfarnham QBC

Rathfarnham QBC Roadside Survey Results - November 2003									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Terminus to Oakdown Road	Average Range	N/A N/A	N/A N/A	0:41 0:28 to 0:54	N/A N/A	N/A N/A	N/A N/A	0:39 0:22 to 1:11	4:33 4:33
Oakdown Rd to R'nham Rd/Butterfield	Average Range	7:23 5:16 to 10:24	11:36 7:29 to 15:03	5:56 3:31 to 7:56	6:14 6:14	7:15 5:53 to 8:36	N/A N/A	4:58 3:19 to 6:20	N/A N/A
Rathfarnham Road to Butterfield Avenue	Average Range	N/A N/A	N/A N/A	1:49 1:25 to 2:16	5:29 0:55 to 9:08	N/A N/A	N/A N/A	1:36 0:55 to 2:18	2:53 2:02 to 4:18
Rathfarnham Road to Brookvale Road	Average Range	1:44 0:50 to 3:04	2:02 0:35 to 6:42	N/A N/A	N/A N/A	1:19 1:02 to 1:33	1:06 0:45 to 1:40	N/A N/A	N/A N/A
Terenure Road North to Rathfarnham Road	Average Range	N/A N/A	N/A N/A	5:00 1:48 to 6:50	6:13 2:05 to 11:10	N/A N/A	N/A N/A	2:11 1:02 to 3:46	3:17 0:52 to 5:47
Brookvale Road to Terenure Road East	Average Range	3:29 1:08 to 5:46	3:58 1:04 to 6:04	N/A N/A	N/A N/A	5:07 3:53 to 6:04	4:49 2:37 to 6:14	N/A N/A	N/A N/A
Whitton Road to Terenure Road North	Average Range	N/A N/A	N/A N/A	5:51 3:07 to 9:17	N/A N/A	N/A N/A	N/A N/A	2:37 1:20 to 3:50	N/A N/A
Terenure Road East to Mount Tallant Avenue	Average Range	3:22 1:34 to 6:06	2:33 0:41 to 6:08	N/A N/A	N/A N/A	3:01 1:12 to 4:07	1:16 0:35 to 2:15	N/A N/A	N/A N/A
Leinster Road to Terenure Rd North	Average Range	N/A N/A	N/A N/A	11:58 7:22 to 19:10	6:37 4:18 to 9:35	N/A N/A	N/A N/A	6:13 4:47 to 7:18	2:59 2:02 to 4:07
Harolds Cross/Leinster Rd to Whitton Road	Average Range	N/A N/A	N/A N/A	6:31 3:43 to 9:53	N/A N/A	N/A N/A	N/A N/A	3:35 2:46 to 4:20	N/A N/A
Mount Tallant Avenue to Leinster Road West	Average Range	1:29 0:31 to 3:23	1:22 0:29 to 2:55	N/A N/A	N/A N/A	1:18 0:38 to 1:54	0:48 0:18 to 1:42	N/A N/A	N/A N/A

Table 8f Rathfarnham QBC (continued)

Rathfarnham QBC Roadside Survey Results - November 2003									
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	3:09 1:04 to 6:34	3:08 0:24 to 6:08	N/A N/A	N/A N/A	1:41 1:08 to 2:27	0:49 0:25 to 1:23	N/A N/A	N/A N/A
Canal to Harolds Cross/Leinster Rd	Average Range	N/A N/A	N/A N/A	2:47 1:22 to 4:36	8:09 4:14 to 13:17	N/A N/A	N/A N/A	2:09 1:45 to 2:28	4:45 4:45
Harolds Cross/Leinster Rd to Clanbrassil St	Average Range	3:16 1:21 to 5:05	5:46 2:26 to 8:40	7:12 3:59 to 11:48	11:28 7:16 to 14:53	2:21 1:49 to 3:28	2:06 0:50 to 3:29	5:58 4:41 to 7:03	5:43 5:39 to 5:47
Clanbrassil Street to Canal	Average Range	N/A N/A	N/A N/A	4:27 2:20 to 9:02	3:14 1:21 to 6:50	N/A N/A	N/A N/A	3:49 2:13 to 4:50	1:03 0:25 to 2:48
Clanbrassil Street to South Circular Road	Average Range	2:33 1:30 to 4:25	1:52 0:58 to 3:15	2:00 1:01 to 3:22	8:23 1:41 to 14:53	2:41 1:57 to 4:11	1:36 0:57 to 2:01	0:55 0:23 to 1:25	3:18 2:18 to 4:23
South Circular Road to Camden Street	Average Range	3:31 2:05 to 4:31	1:48 0:59 to 3:28	9:10 6:18 to 11:43	1:45 0:52 to 5:11	3:08 2:42 to 3:23	3:20 2:36 to 5:04	4:48 4:37 to 4:55	1:31 0:32 to 1:51
Camden Street to Bishop Street	Average Range	2:54 1:31 to 5:27	2:33 0:57 to 4:03	1:13 0:29 to 2:18	N/A N/A	4:13 3:59 to 4:33	3:40 2:25 to 4:28	1:11 0:44 to 1:31	N/A N/A
Camden Street to Stephen Street	Average Range	4:57 2:59 to 7:19	4:16 1:46 to 7:57	N/A N/A	N/A N/A	6:23 6:18 to 6:27	5:40 4:14 to 7:23	N/A N/A	N/A N/A
Camden St to W'land St/College Green	Average Range	8:27 5:29 to 12:51	N/A N/A	7:07 5:21 to 8:57	N/A N/A	9:47 9:05 to 10:29	N/A N/A	6:25 5:29 to 7:32	4:01 2:05 to 6:36
Bishop Street to Stephen Street	Average Range	2:07 1:07 to 5:06	1:29 0:34 to 2:37	N/A N/A	N/A N/A	2:40 2:19 to 3:21	2:01 1:17 to 2:36	N/A N/A	N/A N/A
Bishop St to Westmoreland St/College Gn	Average Range	5:52 3:58 to 8:06	N/A N/A	6:17 3:41 to 8:28	N/A N/A	5:50 5:06 to 6:28	N/A N/A	5:07 4:12 to 6:01	N/A N/A
Stephen Street to Westmoreland Street	Average Range	3:44 1:59 to 5:33	N/A N/A	N/A N/A	N/A N/A	2:57 2:47 to 3:07	N/A N/A	N/A N/A	N/A N/A

Table 8g Stillorgan QBC

Stillorgan QBC Roadside Survey Results November 2003									
Sectional Results									
Section	Average Range	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	7:52 5:17 to 9:15	N/A N/A	6:12 2:05 to 7:42	N/A N/A	9:31 8:15 to 11:04	N/A N/A	6:14 4:38 to 7:20	N/A N/A
Oliver Plunkett Road to Abbey Road	Average Range	6:09 3:33 to 7:21	N/A N/A	4:03 2:06 to 9:38	N/A N/A	4:54 3:36 to 6:50	3:13 2:27 to 3:59	4:26 3:24 to 5:34	N/A N/A
Abbey Road to Foxrock Church	Average Range	6:02 3:48 to 7:53	N/A N/A	7:07 4:35 to 15:47	N/A N/A	5:32 3:02 to 7:34	N/A N/A	5:39 4:42 to 6:31	N/A N/A
Oliver Plunkett Road to Foxrock Church	Average Range	12:26 9:12 to 14:37	N/A N/A	11:14 7:20 to 20:04	N/A N/A	10:16 8:05 to 13:42	N/A N/A	10:15 8:39 to 11:04	N/A N/A
Dun Laoghaire to Foxrock Church	Average Range	20:24 16:19 to 23:40	N/A N/A	17:42 13:47 to 29:27	N/A N/A	20:44 18:35 to 24:20	N/A N/A	18:07 17:50 to 18:24	N/A N/A
Foxrock Church to Mount Merrion Avenue	Average Range	10:32 5:52 to 12:48	12:02 5:58 to 20:26	10:00 7:57 to 15:22	12:23 6:30 to 16:50	10:35 10:05 to 12:25	5:52 4:48 to 6:50	12:00 9:19 to 16:37	5:52 4:40 to 6:53
Mount Merrion Avenue to Donnybrook	Average Range	9:11 6:18 to 14:59	16:26 9:37 to 23:30	8:56 5:13 to 14:33	9:30 6:15 to 17:23	7:35 5:43 to 9:21	4:50 3:31 to 6:04	8:01 5:23 to 12:59	5:47 4:30 to 8:29
Donnybrook to Morehampton Road	Average Range	5:34 3:02 to 6:58	9:20 6:35 to 19:49	4:44 2:52 to 12:14	3:49 2:49 to 6:54	5:36 4:11 to 7:29	6:24 4:10 to 8:44	3:53 2:47 to 6:29	3:31 1:51 to 5:11
Morehampton Road to Leeson Street	Average Range	4:16 2:26 to 6:21	3:34 3:04 to 4:17	5:54 2:46 to 8:57	N/A N/A	4:09 3:35 to 4:44	N/A N/A	5:16 3:01 to 7:00	N/A N/A
Donnybrook to Leeson Street	Average Range	9:31 7:19 to 12:10	N/A N/A	10:43 7:15 to 15:00	N/A N/A	10:06 8:55 to 11:41	N/A N/A	9:18 7:10 to 10:48	N/A N/A

Table 8g Stillorgan QBC (continued)

Stillorgan QBC Roadside Survey Results November 2003									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Foxrock Church to Leeson Street	Average Range	29:00 24:56 to 33:12	41:22 25:14 to 68:02	29:16 23:34 to 33:40	N/A N/A	27:38 25:25 to 30:04	22:27 17:44 to 26:53	28:52 25:53 to 33:25	N/A N/A
Foxrock Church to Morehampton Road	Average Range	25:30 22:23 to 28:21	37:48 22:10 to 63:35	23:26 18:47 to 29:00	25:42 15:34 to 41:07	23:23 21:39 to 25:50	17:06 12:29 to 21:38	24:42 20:09 to 29:34	15:10 11:01 to 20:33
Leeson St to D'Olier/W'moreland Street	Average Range	10:43 7:49 to 13:38	N/A N/A	9:59 6:05 to 17:17	N/A N/A	11:18 9:52 to 13:41	N/A N/A	6:11 4:36 to 7:17	N/A N/A
Foxrock Church to Westmoreland Street	Average Range	41:03 35:01 to 45:36	N/A N/A	38:59 30:14 to 48:03	N/A N/A	39:25 35:26 to 41:51	N/A N/A	34:43 30:53 to 40:24	N/A N/A
Dun Laoghaire to Westmoreland Street	Average Range	61:59 56:45 to 65:01	N/A N/A	55:55 46:57 to 62:53	N/A N/A	60:09 54:01 to 66:11	N/A N/A	52:50 48:43 to 58:48	N/A N/A

Table 8h Swords QBC

Swords QBC Roadside Survey Results - November 2003									
Sectional Results									
Section	Average Range	AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
County Council to Swords Main Street	Average Range	1:27 1:00 to 2:31	N/A N/A	1:04 0:26 to 1:58	N/A N/A	1:28 1:13 to 2:08	N/A N/A	1:18 1:07 to 1:32	N/A N/A
Swords Main Str to Airside Business Pk	Average Range	3:04 1:33 to 5:13	N/A N/A	6:57 5:17 to 9:34	4:01 3:00 to 4:59	3:44 3:19 to 4:16	N/A N/A	6:33 6:06 to 7:00	4:50 3:35 to 7:08
Airside Business Pk to Cloghran R'bout	Average Range	1:49 0:53 to 2:53	1:36 0:45 to 3:48	2:06 1:11 to 3:47	2:02 0:51 to 3:30	1:42 1:13 to 2:08	1:37 0:49 to 2:27	1:14 1:14	1:26 1:01 to 1:57
County Council to Cloghran R'bout	Average Range	6:20 4:54 to 8:08	N/A N/A	9:58 8:16 to 12:47	N/A N/A	6:43 6:10 to 7:48	N/A N/A	N/A N/A	N/A N/A
Cloghran Rbt to Airport South (Not via Airport)	Average Range	5:25 2:38 to 8:03	5:15 4:30 to 6:45	5:26 3:40 to 7:23	2:37 1:47 to 4:16	5:38 5:15 to 6:00	5:26 4:29 to 6:32	4:11 2:30 to 5:52	N/A N/A
Cloghran Rbt to Airport South (Via Airport)	Average Range	13:28 10:00 to 21:51	N/A N/A	N/A N/A	N/A N/A	14:34 13:30 to 15:38	N/A N/A	N/A N/A	N/A N/A
Airport South to Omni Park	Average Range	13:13 5:48 to 20:14	16:00 11:09 to 19:12	11:51 8:20 to 14:30	8:21 6:16 to 10:02	6:56 6:22 to 7:30	N/A N/A	10:54 10:33 to 11:06	7:25 7:25
Omni Park to Collins Avenue	Average Range	16:31 4:12 to 25:59	16:45 10:21 to 25:02	6:44 3:37 to 11:57	6:39 3:22 to 12:13	5:18 4:31 to 6:40	3:55 3:03 to 5:27	5:59 4:37 to 8:13	4:54 4:01 to 6:16
Collins Ave to Richmond Rd/Botanic Ave	Average Range	5:52 3:30 to 8:49	17:06 5:24 to 25:41	15:34 11:55 to 19:36	18:01 11:11 to 24:51	4:36 3:42 to 5:41	4:45 1:53 to 6:43	8:32 3:09 to 12:48	6:48 4:01 to 10:31
Richmond Rd/Botanic Ave to Dorset St Lwr	Average Range	6:44 3:57 to 10:18	5:27 2:51 to 14:47	8:22 5:38 to 17:20	7:14 4:28 to 11:58	6:01 3:43 to 8:23	3:01 1:57 to 4:51	2:48 1:08 to 3:55	1:04 0:48 to 1:47
Dorset St Lwr to O'Connell St	Average Range	9:52 5:27 to 18:32	N/A N/A	N/A N/A	N/A N/A	11:13 10:16 to 12:29	N/A N/A	N/A N/A	N/A N/A
Richmond Rd to O'Connell Street	Average Range	16:51 10:23 to 26:02	N/A N/A	N/A N/A	N/A N/A	16:32 14:38 to 17:30	N/A N/A	N/A N/A	N/A N/A
Eden Quay to Dorset St Lower	Average Range	N/A N/A	N/A N/A	10:22 5:28 to 13:20	N/A N/A	N/A N/A	N/A N/A	10:28 9:34 to 11:45	N/A N/A
Eden Quay to Botanic Avenue	Average Range	N/A N/A	N/A N/A	19:20 12:48 to 27:34	N/A N/A	N/A N/A	N/A N/A	13:48 13:34 to 14:11	N/A N/A

Table 8i Tallaght QBC

Tallaght QBC Roadside Survey Results - November 2003									
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	7:16 4:58 to 9:41	N/A N/A	10:20 7:12 to 12:53	6:57 6:31 to 7:23	6:01 5:09 to 6:35	5:03 3:18 to 5:57	N/A N/A	N/A N/A
Main Street to West M50	Average Range	4:40 3:03 to 5:49	N/A N/A	6:11 5:30 to 7:05	5:59 4:06 to 8:22	4:02 2:42 to 4:49	4:28 3:21 to 6:33	N/A N/A	5:52 4:11 to 7:23
West M50 to East M50	Average Range	2:40 1:40 to 3:58	2:23 2:23	1:13 1:13	N/A N/A	1:30 0:49 to 2:10	1:46 1:34 to 1:59	1:13 1:08 to 1:17	1:07 0:49 to 1:21
East M50 to Oldbridge Road	Average Range	3:59 2:04 to 5:38	N/A N/A	11:27 9:09 to 14:15	3:15 3:15	1:22 1:22	3:50 3:50	4:53 4:01 to 5:45	3:40 2:12 to 5:08
Oldbridge Road to Fortfield Road	Average Range	3:14 1:33 to 8:05	3:24 1:52 to 4:56	3:22 1:41 to 5:21	5:10 1:43 to 8:38	4:56 4:01 to 5:56	5:36 3:58 to 6:48	2:31 1:50 to 2:55	1:22 0:43 to 2:19
Fortfield Road to Rathdown Park	Average Range	4:16 1:44 to 7:18	7:48 2:55 to 15:20	0:54 0:49 to 0:58	4:04 2:22 to 6:32	2:52 2:22 to 3:49	4:58 4:41 to 5:08	1:08 0:45 to 1:26	2:11 0:31 to 4:04
Rathdown Park to Terenure Road East	Average Range	6:33 2:09 to 9:50	6:53 4:08 to 9:40	6:32 5:15 to 7:44	6:21 4:26 to 10:05	10:55 8:00 to 14:56	7:50 4:45 to 11:02	6:02 3:54 to 7:53	3:36 3:03 to 4:12
Terenure Road East to Rathgar Road	Average Range	4:56 2:53 to 7:24	6:22 2:38 to 15:33	5:14 3:57 to 6:43	3:59 3:16 to 4:53	3:07 1:30 to 4:09	2:26 1:33 to 4:18	4:02 3:01 to 5:03	N/A N/A
Rathgar Road to Leinster Road	Average Range	5:16 1:37 to 11:37	4:06 0:50 to 7:40	3:07 2:31 to 4:42	2:00 1:42 to 2:21	1:51 1:02 to 3:18	2:01 1:15 to 2:47	3:38 2:26 to 5:49	2:30 0:53 to 4:24
Leinster Road to Canal	Average Range	3:32 1:20 to 10:54	2:22 0:50 to 4:22	3:46 2:40 to 4:41	2:36 1:38 to 4:05	1:47 1:09 to 3:09	1:12 0:43 to 1:35	1:39 0:34 to 2:22	1:09 0:35 to 1:46



Table 8i Tallaght QBC (continued)

Tallaght QBC Roadside Survey Results - November 2003									
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	4:09 3:11 to 7:25	5:17 1:18 to 9:53	5:01 2:21 to 7:09	5:40 4:02 to 7:10	4:08 2:38 to 5:22	2:40 1:58 to 3:43	3:18 2:01 to 3:55	8:04 8:04
Camden Street to Dame Street	Average Range	8:42 8:04 to 10:08	N/A N/A	7:31 6:21 to 10:08	N/A N/A	7:11 6:59 to 7:23	N/A N/A	5:27 4:38 to 6:40	N/A N/A
Dame Street to Tara St / Eden Quay	Average Range	7:05 5:57 to 8:19	N/A N/A	5:46 4:07 to 6:33	N/A N/A	5:18 5:18	N/A N/A	5:38 3:27 to 10:46	N/A N/A

## 11 Sectional Bus Speeds

The data used to compile the sectional bus journey times shown in **Section 10** is used to convert time to speed.

The results for each QBC for all the time periods surveyed are shown in **Tables 8a 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**

Blanchardstown QBC Roadside Survey Results - November 2003					
Sectional Results - Bus Journey Speeds					
Section	Distance Metres	Bus Lane Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Clonsilla to Blanchardstown Road South via Town Centre	7763	0	Average Range	18.77 14.59 to 23.00	15.02 13.42 to 17.08
Blakestown Way to Rear of Town C'tre (Peak)	1074	0	Average Range	17.42 8.11 to 25.78	N/A N/A
Blanchardstown Road South to Coolmine Rd	1719	388	Average Range	21.05 8.85 to 45.18	32.06 24.27 to 45.84
Rear of Shopping Centre to River Rd Roundabout (Peak)	1727	0	Average Range	21.44 10.45 to 31.09	N/A N/A
Coolmine Rd to River Road Roundabout	2208	361	Average Range	11.74 6.16 to 26.23	15.96 12.76 to 24.61
River Road Roundabout to New River Road	983	300	Average Range	16.69 8.61 to 49.86	86.35 75.32 to 93.17
New River Road to Ashtown Roundabout	1958	1958	Average Range	36.91 16.43 to 60.78	26.80 26.80
Ashtown Roundabout to Ratoath Road	2395	2075	Average Range	18.83 10.04 to 48.17	35.92 32.17 to 40.11
Ratoath Road to North Circular Road	841	0	Average Range	8.01 4.61 to 37.85	19.66 7.72 to 43.24
North Circular Road to Manor Street	659	120	Average Range	9.53 5.70 to 19.29	26.06 12.96 to 55.15
Manor Street to Blackhall Place	658	506	Average Range	9.01 4.62 to 18.51	7.20 4.93 to 15.28
Blackhall Place to Capel Street	1001	312	Average Range	9.38 6.29 to 15.53	12.01 8.85 to 16.45
Capel Street to Tara Street	1278	221	Average Range	6.53 4.22 to 9.39	N/A N/A
<b>Total Inbound Distance Clonsilla to Tara Street</b>	<b>21463</b>	<b>N/A</b>	<b>Average Range</b>	<b>15.08 13.15 to 18.24</b>	<b>16.81 15.76 to 18.44</b>
<b>Total Inbound Distance B'town Rd Sth to Capel St</b>	<b>12422</b>	<b>6020</b>	<b>Average Range</b>	<b>13.90 11.98 to 16.45</b>	<b>20.35 17.89 to 21.92</b>
<b>Total Inbound Distance B'town Rd Sth to Manor St</b>	<b>10763</b>	<b>5202</b>	<b>Average Range</b>	<b>14.72 12.43 to 20.74</b>	<b>25.39 23.77 to 26.61</b>
<b>Total Inbound Distance Rear of Town Ctre to Capel St</b>	<b>10222</b>	<b>5271</b>	<b>Average Range</b>	<b>16.24 13.64 to 19.72</b>	<b>N/A N/A</b>
<b>Total Inbound Distance River Road to Capel St</b>	<b>8495</b>	<b>5271</b>	<b>Average Range</b>	<b>13.92 12.25 to 16.04</b>	<b>22.00 18.34 to 28.03</b>
<b>Total Inbound Distance New River Road to Capel St</b>	<b>7512</b>	<b>4971</b>	<b>Average Range</b>	<b>13.59 11.66 to 15.92</b>	<b>17.29 16.69 to 17.93</b>

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

Blanchardstown QBC Roadside Survey Results - November 2003					
Sectional Results - Bus Journey Speeds					
Section	Distance Metres	Bus Lane Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Hawkins Street to Merchants Quay	1416	0	Average Range	8.83 6.23 to 14.73	14.08 10.60 to 20.23
Merchants Quay to Blackhall Place Bridge	732	450	Average Range	5.70 4.25 to 8.08	8.64 6.83 to 13.24
Blackhall Place Bridge to Manor Street	712	0	Average Range	10.50 7.24 to 26.70	13.63 8.60 to 17.56
Manor Street to North Circular Road	635	0	Average Range	8.83 5.95 to 13.52	13.29 9.22 to 19.71
North Circular Road to Ratoath Road	824	0	Average Range	17.45 5.96 to 74.12	16.57 14.40 to 25.58
Ratoath Road to Ashtown Roundabout	2565	100	Average Range	23.26 13.34 to 35.52	14.77 12.72 to 17.69
Ashtown Roundabout to New River Road	1811	1332	Average Range	57.19 25.08 to 93.11	24.79 24.79
New River Road to River Road Roundabout	1108	0	Average Range	20.04 15.05 to 54.63	N/A N/A
River Road Roundabout to Coolmine Road	1984	0	Average Range	15.26 11.63 to 25.06	45.21 45.21
River Road Roundabout to Rear of Town Centre (Peak)	1648	0	Average Range	N/A N/A	N/A N/A
Coolmine Road to Blakestown Way via Town Centre	3416	593	Average Range	17.59 12.64 to 21.46	18.98 16.10 to 23.38
Rear of Shopping Centre to Blakestown Way (Peak)	977	0	Average Range	N/A N/A	N/A N/A
Blakestown Way to Clonsilla	6184	0	Average Range	22.40 20.86 to 24.52	22.28 22.28
<b>Total Outbound Distance Hawkins St to Clonsilla</b>	<b>21387</b>	<b>2475</b>	<b>Average Range</b>	<b>16.68 16.04 to 19.80</b>	<b>20.52 20.36 to 20.69</b>
<b>Total Outbound Distance Hawkins St to New River Road</b>	<b>8695</b>	<b>1882</b>	<b>Average Range</b>	<b>13.54 11.96 to 16.58</b>	<b>17.86 15.25 to 21.56</b>
<b>Total Outbound Distance Merchants Quay to New River Rd</b>	<b>7279</b>	<b>1882</b>	<b>Average Range</b>	<b>15.04 13.23 to 16.98</b>	<b>20.72 16.82 to 26.99</b>
<b>Total Outbound Distance Manor Street to New River Rd</b>	<b>5835</b>	<b>1432</b>	<b>Average Range</b>	<b>22.73 17.70 to 30.14</b>	<b>26.49 21.88 to 33.56</b>
<b>Total Outbound Distance Merchants Quay to River Rd</b>	<b>8387</b>	<b>1882</b>	<b>Average Range</b>	<b>15.64 13.31 to 18.58</b>	<b>16.54 15.42 to 18.29</b>

**Table 9b Finglas QBC**

Finglas QBC Roadside Survey Results - November 2003					
Sectional Results - Bus Journey Speeds					
Section	Distance Metres	Bus Lane Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Mallowes Road Bridge to Finglas Road	547	0	Average Range	7.08 4.54 to 12.87	11.00 8.14 to 14.70
Finglas Road to Prospect Road/Whitworth Road	3222	2978	Average Range	24.11 17.34 to 47.35	34.52 28.78 to 44.27
Prospect Road/Whitworth Road to Dorset Street Lower	957	17	Average Range	13.89 7.13 to 31.04	7.24 4.10 to 19.46
Dorset Street Lower to Parnell Square East	1093	1093	Average Range	12.65 8.16 to 22.36	10.61 5.58 to 21.86

Corridor Inbound Distance Finglas Rd to Parnell Square	5272	4088	Average Range	18.74 14.44 to 25.37	17.13 11.98 to 21.49
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Section	Distance Metres	Bus Lane Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Parnell Street to Dorset Street Lower	1218	396	Average Range	8.05 7.90 to 8.20	N/A N/A
Dorset Street Lower to Whitworth Road/Prospect Rd	952	0	Average Range	6.49 5.05 to 10.23	11.42 11.42
Prospect Road to Finglas Road	2907	1818	Average Range	21.40 14.10 to 34.42	23.95 21.62 to 27.32
Finglas Road to Mallowes Road Bridge	761	0	Average Range	18.89 18.89	N/A N/A

Corridor Outbound Distance Parnell St to Finglas Rd	5077	2214	Average Range	12.54 9.34 to 18.52	16.19 14.55 to 18.37
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Table 9c Lucan QBC

Lucan QBC Roadside Survey Results - November 2003					
Sectional Results - Bus Journey Speeds					
Section	Distance Metres	Bus Lane Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Lucan Superquinn to Penny Hill Pub	4675	N/A	Average Range	16.43 10.57 to 26.09	22.80 21.36 to 25.08
Penny Hill Pub to Foxhunter	1920	N/A	Average Range	8.96 4.88 to 25.04	23.12 20.15 to 25.50
Foxhunter to West of M50	2026	2026	Average Range	30.01 17.88 to 62.89	43.41 29.41 to 73.67
West of M50 to Palmerston	1595	390	Average Range	26.58 14.11 to 47.07	N/A N/A
Palmerston to Chapelizod Slip	267	267	Average Range	5.79 3.91 to 11.72	N/A N/A
West of M50 to Chapelizod Slip	1862	657	Average Range	N/A N/A	19.66 16.55 to 23.68
Chapelizod Slip to Con Colbert Rd (Expresso)	3601	3275	Average Range	71.61 54.24 to 87.01	N/A N/A
Chapelizod Slip to Conyngham Rd	4080	253	Average Range	28.97 20.69 to 45.33	40.46 35.14 to 45.76
Conyngham Rd to Parkgate St	951	674	Average Range	22.67 12.68 to 52.69	18.51 11.49 to 35.66
Con Colbert Rd to Heuston Station (Expresso)	1559	0	Average Range	22.72 15.38 to 48.39	N/A N/A
Heuston Station to Ellis Quay (Expresso)	785	393	Average Range	10.11 4.61 to 16.62	N/A N/A
Con Colbert Rd to Ellis Quay (Expresso)	2344	393	Average Range	15.80 9.73 to 27.58	N/A N/A
Parkgate St to Ellis Quay	595	558	Average Range	7.82 3.60 to 19.83	13.64 9.69 to 31.04
Ellis Quay to Arran Quay	497	0	Average Range	6.60 2.93 to 17.72	7.52 6.70 to 8.95
Arran Quay to Bachelors Walk	1067	936	Average Range	9.80 6.70 to 14.55	10.88 9.82 to 12.23
Corridor Distance Via Bypass (Expresso)	11397	7287	Average Range	21.42 18.72 to 25.14	N/A N/A
Corridor Distance Via Chapelizod	11078	5104	Average Range	18.45 15.31 to 22.70	22.24 20.84 to 23.77
Route Distance Via Bypass (Expresso)	17992	N/A	Average Range	16.77 13.67 to 19.70	N/A N/A
Route Distance Via Chapelizod	17673	N/A	Average Range	15.66 11.98 to 23.19	22.50 22.50

Table 9c Lucan QBC (continued)

Lucan QBC Roadside Survey Results - November 2003					
Sectional Results - Bus Journey Speeds					
Section	Distance Metres	Bus Lane Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Wellington Quay to Merchants Quay	824	400	Average Range	18.09 8.72 to 30.90	21.50 15.95 to 40.62
Merchants Quay to Conyngham Rd	2222	640	Average Range	16.98 12.72 to 26.93	19.14 10.58 to 25.97
Merchants Quay to Heuston Station (Expresso)	1286	640	Average Range	16.30 12.68 to 22.26	N/A N/A
Heuston Station to Con Colbert Road (Expresso)	1592	0	Average Range	34.52 25.47 to 51.16	N/A N/A
Con Colbert Road to Chapelizod Slip (Expresso)	3009	2486	Average Range	N/A N/A	N/A N/A
Con Colbert Road to Palmerston (Expresso)	3935	3229	Average Range	26.28 20.27 to 34.63	N/A N/A
Conyngham Rd to Chapelizod Slip	3875	253	Average Range	27.68 19.46 to 38.75	37.70 32.59 to 41.89
Chapelizod Slip to Palmerston	926	743	Average Range	9.01 6.63 to 15.65	23.64 19.16 to 28.25
Palmerston to West M50	1558	500	Average Range	16.50 12.55 to 21.33	18.15 15.12 to 31.16
West M50 to Foxhunter	1967	756	Average Range	28.78 22.06 to 55.33	36.12 23.76 to 56.20
Foxhunter to Penny Hill Pub	1581	N/A	Average Range	28.89 20.47 to 42.16	47.43 47.43
Penny Hill Pub to Lucan Superquinn	4726	N/A	Average Range	18.25 12.25 to 26.05	N/A N/A
Foxhunter to Lucan Superquinn	6307	N/A	Average Range	19.76 13.62 to 27.46	29.49 28.10 to 32.07
Corridor Distance Via Bypass (Expresso)	11162	5525	Average Range	23.86 20.10 to 25.87	N/A N/A
Corridor Distance Via Chapelizod	11372	3292	Average Range	20.35 15.69 to 27.57	27.76 25.57 to 30.35
Route Distance Via Chapelizod	17679	N/A	Average Range	19.60 16.60 to 24.87	29.49 29.49
Route Distance Via Bypass (Expresso)	17469	N/A	Average Range	23.20 21.69 to 24.58	N/A N/A

**Table 9d Malahide QBC**

Malahide QBC Roadside Survey Results - November 2003					
Sectional Results - Bus Journey Speeds					
Section	Distance Metres	Bus Lane Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Clare Hall to Priorswood Road	1185	1017	Average Range	18.55 8.27 to 76.20	53.99 33.58 to 71.10
Priorswood Road to Greencastle Road (Direct)	992	671	Average Range	35.70 20.64 to 79.36	21.78 21.51 to 22.04
Priorswood Rd to Greencastle Road (via Darndale)	4089	0	Average Range	17.22 12.74 to 21.12	19.14 16.48 to 23.82
Greencastle Road to Kilmore Road	1532	998	Average Range	14.40 8.68 to 29.97	18.89 17.08 to 23.98
Kilmore Road to St Davids Wood	150	0	Average Range	4.50 2.01 to 18.63	13.49 7.20 to 38.63
St Davids Wood to Collins Avenue	671	601	Average Range	11.96 6.94 to 24.90	17.76 13.34 to 26.26
Collins Avenue to Casino Park	318	0	Average Range	4.89 3.23 to 11.01	11.01 6.58 to 18.76
Casino Park to Fairview	1133	1054	Average Range	26.48 17.58 to 55.13	41.20 36.41 to 55.13
Fairview to Amiens Street	1897	1529	Average Range	16.70 12.02 to 25.39	19.24 17.47 to 21.47
Amiens Street to Talbot Street	435	0	Average Range	9.26 6.39 to 17.40	13.86 7.83 to 24.86
Total Inbound Distance Clare Hall to Talbot St (Direct)	8313	5870	Average Range	15.07 11.09 to 24.53	N/A N/A
Total Inbound Distance Clare Hall to Talbot St (D'dale)	11410	5199	Average Range	15.38 13.21 to 20.58	20.62 19.72 to 21.62
Total Inbound Distance Greencastle Rd to Talbot St	6136	4182	Average Range	13.34 10.99 to 19.74	18.81 16.75 to 20.36
Total Inbound Distance Greencastle Rd to Amiens St	5701	4182	Average Range	14.28 10.96 to 21.95	18.79 16.91 to 21.01



**Table 9d Malahide QBC (continued)**

Malahide QBC Roadside Survey Results - November 2003					
Sectional Results - Bus Journey Speeds					
Section	Distance Metres	Bus Lane Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Talbot Street to North Strand	724	124	Average Range	3.44 1.31 to 11.43	4.99 2.71 to 12.47
North Strand to Fairview	1706	1706	Average Range	17.25 13.09 to 30.40	6.29 5.12 to 7.46
Fairview to Griffith Avenue	675	0	Average Range	10.47 5.16 to 21.32	22.29 15.58 to 39.21
Griffith Avenue to Collins Avenue	887	772	Average Range	20.87 15.43 to 31.31	21.01 13.03 to 43.16
Collins Avenue to Kilmore Road	955	158	Average Range	13.27 9.07 to 27.95	16.61 11.62 to 23.08
Kilmore Road to Greencastle Road	1440	911	Average Range	20.57 10.89 to 60.29	20.57 18.00 to 25.41
Greencastle Road to Priorswood Road (Direct)	997	687	Average Range	16.31 10.81 to 30.17	20.28 18.59 to 23.16
Greencastle Rd to Priorswood Road (Via Darndale)	4021	0	Average Range	17.44 14.49 to 25.09	22.37 19.22 to 27.57
Priorswood Road to Clare Hall	1289	1152	Average Range	20.53 11.54 to 29.37	19.66 16.81 to 21.58
Total Outbound Distance Talbot St to Clare Hall (D'dale)	11697	4823	Average Range	13.73 9.66 to 17.36	14.63 14.29 to 14.98
Total Outbound Distance Talbot St to Clare Hall (Direct)	8673	5510	Average Range	12.28 7.69 to 16.65	12.84 11.72 to 14.12
Total Outbound Distance Talbot St to Greencastle Rd	6387	3671	Average Range	10.96 6.91 to 14.39	11.39 10.47 to 12.49
Total Outbound Distance North Strand to Greencastle Rd	5663	3547	Average Range	16.27 13.67 to 19.40	13.60 13.02 to 14.72

**Table 9e North Clondalkin QBC**

North Clondalkin QBC Roadside Survey Results - November 2003					
Sectional Results - Bus Journey Speeds					
Section	Distance Metres	Bus Lane Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Fonthill Road to Coldcut Road	3778	563	Average	15.72	25.19
			Range	7.66 to 35.24	18.45 to 33.50
Coldcut Road to Ballyfermot Road/Le Fanu Road	1558	719	Average	14.80	18.45
			Range	8.09 to 25.15	13.23 to 21.57
Ballyfermot Rd/Le Fanu Rd to Ballyfermot Rd/Kylemore Rd	642	162	Average	15.30	19.42
			Range	7.18 to 48.15	14.01 to 24.07
Ballyfermot Rd/Kylemore Rd to Emmet Rd/Tyrconnell Rd	2292	236	Average	18.71	25.86
			Range	12.15 to 28.06	21.16 to 33.40
Emmet Rd/Tyrconnell Rd to Emmet Rd/South Circular Rd	851	334	Average	20.02	20.02
			Range	8.58 to 42.55	17.02 to 26.87
Emmet Road/South Circular Rd to Mount Brown	1150	278	Average	16.56	23.52
			Range	8.13 to 28.75	15.80 to 40.59
Mount Brown to Cornmarket	1068	725	Average	8.74	12.02
			Range	3.56 to 18.31	7.88 to 21.24
Cornmarket to Westmoreland Street	1365	197	Average	8.90	11.04
			Range	5.52 to 15.80	9.17 to 14.29

Inbound Distance			Average	14.05	20.97
Fonthill Rd to Westmoreland St	12704	3214	Range	10.86 to 18.13	18.85 to 22.36
Inbound Distance			Average	13.92	17.99
Coldcut Rd to Westmoreland St	8926	2651	Range	10.50 to 21.10	16.34 to 20.43
Inbound Distance			Average	10.86	14.54
Sth Circular Rd to W'moreland St	3583	1200	Range	8.28 to 16.45	12.52 to 16.79

Section	Distance Metres	Bus Lane Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Aston Quay to Bridge Street	1086	651	Average	5.74	14.11
			Range	3.40 to 10.02	12.57 to 15.96
Bridge Street to Cornmarket	316	0	Average	8.68	10.25
			Range	5.08 to 17.24	8.68 to 13.23
Cornmarket to James Street	796	655	Average	12.19	13.77
			Range	7.66 to 28.65	10.61 to 19.10
James Street to Emmet Road/South Circular Road	1425	0	Average	9.73	10.69
			Range	7.41 to 19.29	9.73 to 12.57
Emmet Road/South Circular Rd to Emmet Rd/Tyrconnell Rd	852	0	Average	9.52	19.05
			Range	5.41 to 23.97	12.89 to 28.13
Emmet Road/Tyrconnell Rd to Ballyfermot Rd/Kylemore Rd	2315	658	Average	14.65	27.20
			Range	9.62 to 20.08	26.04 to 28.54
Ballyfermot Rd/Kylemore Rd to Ballyfermot Rd/Le Fanu Rd	605	174	Average	7.12	20.95
			Range	2.03 to 27.23	16.88 to 26.89
Ballyfermot Rd/Le Fanu Rd to Coldcut Road	1549	144	Average	5.68	12.12
			Range	4.14 to 9.47	9.87 to 15.80
Coldcut Road to Fonthill Road	3847	473	Average	16.93	20.22
			Range	14.10 to 20.10	16.55 to 24.30
Outbound Distance			Average	10.28	16.94
Aston Quay to Fonthill Road	12791	2755	Range	9.40 to 11.27	16.29 to 17.94
Outbound Distance			Average	8.72	15.29
Aston Quay to Coldcut Road	8944	2282	Range	7.47 to 9.87	14.54 to 16.67
Outbound Distance			Average	8.49	13.47
Aston Quay to Emmet Road	4475	1306	Range	5.57 to 11.93	13.28 to 13.68

**Table 9f Rathfarnham QBC**

Rathfarnham QBC Roadside Survey Results					
Sectional Results - Bus Journey Speeds - November 2003					
Section	Distance Metres	Bus Lane Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Oakdown Road to Rathfarnham Road	2098	1900	Average Range	17.05 12.10 to 23.90	17.36 14.64 to 21.40
Rathfarnham Road to Brookvale Road	277	0	Average Range	9.59 5.42 to 19.95	12.62 10.72 to 16.09
Brookvale Road to Terenure Road East	759	525	Average Range	13.07 7.90 to 40.19	8.90 7.51 to 11.73
Terenure Road East to Mount Tallant Avenue	816	0	Average Range	14.54 8.03 to 31.24	16.23 11.89 to 40.80
Mount Tallant Avenue to Leinster Road West	513	417	Average Range	20.76 9.10 to 59.53	23.68 16.20 to 48.63
Leinster Road West to Harolds Cross Road	214	0	Average Range	4.08 1.95 to 12.03	7.63 5.24 to 11.33
Harolds Cross Road to Clanbrassil Street	1043	845	Average Range	19.15 12.31 to 46.35	26.63 18.05 to 34.44
Clanbrassil Street to South Circular Road	478	0	Average Range	11.25 6.49 to 19.12	10.69 6.86 to 14.71
South Circular Road to Camden Street	777	532	Average Range	13.26 10.32 to 22.38	14.88 13.78 to 17.27
Camden Street to Bishop Street	142	0	Average Range	2.94 1.56 to 5.62	2.02 1.87 to 2.14
Camden Street to Stephen Street	565	0	Average Range	6.85 4.63 to 11.36	5.31 5.25 to 5.38
Bishop Street to Stephen Street	423	0	Average Range	11.99 4.98 to 22.72	9.52 7.57 to 10.95
Stephen Street to Westmoreland Street	655	514	Average Range	10.53 7.08 to 19.82	13.32 12.61 to 14.12

Total Inbound Oakdown Rd to W'land St	8195	4733	Average Range	12.61 10.79 to 16.09	13.05 12.01 to 14.14
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Total Inbound Rathfarnham to W'land St	6097	2833	Average Range	11.89 9.70 to 19.02	13.10 12.98 to 13.21
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**Table 9f Rathfarnham QBC (continued)**

Rathfarnham QBC Roadside Survey Results					
Sectional Results - Bus Journey Speeds - November 2003					
Section	Distance Metres	Bus Lane Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
College Green to Bishop Street	943	291	Average Range	9.01 6.68 to 15.36	11.06 9.40 to 13.47
Bishop Street to Camden Street	293	0	Average Range	14.44 7.64 to 36.40	14.86 11.59 to 23.98
College Green to Camden Street	1236	291	Average Range	10.42 8.29 to 13.86	11.56 9.84 to 13.52
Camden Street to South Circular Road	958	407	Average Range	6.27 4.91 to 9.12	11.97 11.69 to 12.45
South Circular Road (Outbound Bus Lane)	247	247	Average Range	7.41 4.40 to 14.57	16.16 10.46 to 38.69
South Circular Road to Canal	427	0	Average Range	5.76 2.84 to 10.98	6.71 5.30 to 11.56
Canal to Leinster Road	749	447	Average Range	16.15 9.77 to 32.87	20.90 18.22 to 25.68
Leinster Road to Whitton Road	1240	0	Average Range	11.42 7.53 to 20.02	20.76 17.17 to 26.89
Whitton Road to Terenure Road North	174	174	Average Range	1.78 1.12 to 3.35	3.99 2.72 to 7.83
Terenure Road North to Rathfarnham Road	1287	0	Average Range	15.44 11.30 to 42.90	35.37 20.50 to 74.75
Rathfarnham Road to Butterfield Avenue	166	166	Average Range	5.48 4.39 to 7.03	6.22 4.33 to 10.86
Butterfield Avenue to Oakdown Road	1826	0	Average Range	18.47 13.81 to 31.15	22.06 17.30 to 33.03
Oakdown Road to Terminus	299	299	Average Range	26.27 19.93 to 38.41	27.60 15.16 to 48.89
College Green to Terminus	8609	2031	Average Range	10.51 9.31 to 11.39	16.01 14.97 to 17.21
College Green to Butterfield Avenue	6484	1732	Average Range	9.00 7.99 to 9.85	13.90 12.20 to 15.09

**Table 9g Stillorgan QBC**

Stillorgan QBC Roadside Survey Results November 2003					
Sectional Results - Bus Journey Speeds					
Section	Distance Metres	Bus Lane Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Dun Laoghaire Station to Oliver Plunkett Road	2409	N/A	Average Range	18.37 15.62 to 27.36	15.19 13.06 to 17.52
Oliver Plunkett Road to Abbey Road	1652	N/A	Average Range	16.12 13.49 to 27.92	20.23 14.51 to 27.53
Abbey Road to Foxrock Church	1478	N/A	Average Range	14.70 11.25 to 23.34	16.03 11.72 to 29.24
Oliver Plunkett Road to Foxrock Church	3130	N/A	Average Range	15.10 12.85 to 20.41	18.29 13.71 to 23.23
Foxrock Church to Mount Merrion Avenue	Peak 3393	3393	Average Range	19.33 15.90 to 34.70	N/A N/A
Foxrock Church to Mount Merrion Avenue	Off Peak 3529	3393	Average Range	N/A N/A	20.01 17.05 to 20.96
Mount Merrion Avenue to Donnybrook	3267	2525	Average Range	21.34 13.08 to 31.11	25.85 20.96 to 34.29
Donnybrook to Morehampton Road	1190	1167	Average Range	12.82 10.25 to 23.54	12.75 9.54 to 17.07
Morehampton Road to Leeson Street	1335	660	Average Range	18.77 12.61 to 32.92	19.30 16.92 to 22.36
Donnybrook to Leeson Street	2525	1827	Average Range	15.92 12.45 to 20.70	15.00 12.97 to 16.99
Leeson Street to Westmoreland Street	1791	957	Average Range	10.03 7.88 to 13.75	9.51 7.85 to 10.89

Total Inbound Distance Dun Laoghaire to Westmoreland St	Peak 16515	N/A	Average Range	15.99 15.24 to 17.46	N/A N/A
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Total Inbound Distance Dun Laoghaire to Westmoreland St	Off Peak 16651	N/A	Average Range	N/A N/A	16.61 15.09 to 18.49
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Corridor Distance Foxrock Church to Leeson St	Peak 9185	7745	Average Range	19.00 16.60 to 22.10	N/A N/A
Corridor Distance Foxrock Church to Leeson St	Off Peak 9321	7745	Average Range	N/A N/A	20.24 18.60 to 22.00

Corridor Distance Foxrock Church to Westmoreland St	Peak 10976	8702	Average Range	16.04 14.44 to 18.81	N/A N/A
Corridor Distance Foxrock Church to Westmoreland St	Off Peak 11112	8702	Average Range	N/A N/A	16.91 15.93 to 18.82

Non QBC Distance Dun Laoghaire to Foxrock Ch	5539	N/A	Average Range	16.29 14.04 to 20.37	16.03 13.66 to 17.88
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Table 9g Stillorgan (continued)

Stillorgan QBC Roadside Survey Results November 2003					
Sectional Results - Bus Journey Speeds					
Section	Distance Metres	Bus Lane Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
D'Olier Street to Leeson Street	1526	200	Average Range	9.17 5.30 to 15.06	14.81 12.57 to 19.90
Leeson Street to Morehampton Road	1304	852	Average Range	13.26 8.74 to 28.28	14.85 11.18 to 25.93
Morehampton Road to Donnybrook	1202	569	Average Range	15.24 5.90 to 25.16	18.57 11.12 to 25.91
Leeson Street to Donnybrook	2506	1421	Average Range	14.03 10.02 to 20.74	16.17 13.92 to 20.98
Donnybrook to Mount Merrion Avenue	3283	3215	Average Range	22.05 13.54 to 37.76	24.57 15.17 to 36.59
Mount Merrion Avenue to Foxrock Church	3538	3153	Average Range	21.50 13.99 to 27.04	17.91 12.94 to 23.07
Foxrock Church to Abbey Road	1424	N/A	Average Range	12.00 5.41 to 18.64	15.12 13.11 to 18.18
Abbey Road to Oliver Plunkett Road	1802	N/A	Average Range	26.70 11.22 to 51.49	24.39 19.42 to 31.80
Foxrock Church to Oliver Plunkett Road	3226	N/A	Average Range	17.23 9.65 to 26.40	18.88 17.49 to 22.38
Oliver Plunkett Road to Dun Laoghaire	1980	N/A	Average Range	19.16 15.43 to 57.03	19.06 16.20 to 25.64
Total Outbound Distance D'Olier St to Dun Laoghaire	16059	N/A	Average Range	17.28 15.37 to 20.58	18.29 16.43 to 19.83
Corridor Distance Leeson St to Foxrock Church	9327	7789	Average Range	19.21 16.70 to 23.86	19.48 16.83 to 21.72
Corridor Distance D'Olier St to Foxrock Church	10853	7989	Average Range	16.77 13.61 to 21.63	18.83 16.18 to 21.17
Non QBC Distance Foxrock Ch to Dun Laoghaire	5206	N/A	Average Range	17.65 10.61 to 22.66	17.24 16.98 to 17.52

**Table 9h Swords QBC**

Swords QBC Roadside Survey Results					
Sectional Results - Bus Journey Speeds - November 2003					
Section	Distance Metres	Bus Lane Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
County Council Offices to Swords Main Street	282	0	Average Range	11.67 6.72 to 16.92	11.53 7.93 to 13.90
Swords Main Street to Airside Business Park	2040	1249	Average Range	39.91 23.46 to 78.97	32.79 28.68 to 36.90
Airside Business Park to Cloghran Roundabout	1314	1009	Average Range	43.39 27.35 to 89.29	46.38 36.11 to 64.78
Swords County Council to Cloghran Roundabout	3636	2258	Average Range	34.45 26.82 to 44.52	32.48 27.97 to 35.37
Cloghran Rbt to Airport South (Not via Airport)	1388	476	Average Range	15.37 10.34 to 31.63	14.78 13.88 to 15.86
Cloghran Rbt to Airport South (Via Airport)	3886	N/A	Average Range	17.31 10.67 to 23.32	16.01 14.91 to 17.26
Airport South to Omni Park	3741	3269	Average Range	16.98 11.09 to 38.70	32.38 29.93 to 35.25
Omni Park to Collins Avenue	1423	743	Average Range	5.17 3.29 to 20.33	16.11 12.81 to 18.90
Collins Avenue to Richmond Rd	1532	1183	Average Range	15.67 10.42 to 26.26	19.98 16.17 to 24.84
Richmond Rd to Dorset Street Lower	1111	841	Average Range	9.90 6.47 to 16.87	11.08 7.95 to 17.93
Dorset Street Lower to O'Connell Street	1330	1293	Average Range	8.09 4.31 to 14.64	7.11 6.39 to 7.77
Richmond Rd to O'Connell Street	2441	2134	Average Range	8.69 5.63 to 14.11	8.86 8.37 to 10.01

Total Inbound Distance Swords CC to O'Connell St	Direct 14161	10063	Average Range	13.81 10.41 to 21.92	16.23 15.69 to 17.19
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Section	Distance Metres	Bus Lane Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Eden Quay to Dorset Street Lower	1497	352	Average Range	8.66 6.74 to 16.43	8.58 7.64 to 9.39
Dorset Street Lower to Botanic Avenue	909	147	Average Range	6.52 3.15 to 9.68	19.48 13.92 to 48.14
Eden Quay to Botanic Avenue	2406	499	Average Range	7.47 5.24 to 11.28	10.46 10.18 to 10.64
Botanic Avenue to Collins Avenue	1741	471	Average Range	6.71 5.33 to 8.77	12.24 8.16 to 33.16
Collins Avenue to Omni Park	1298	0	Average Range	11.57 6.52 to 21.53	13.02 9.48 to 16.87
Omni Park to Airport South	3746	2500	Average Range	18.97 15.50 to 26.97	20.62 20.25 to 21.30
Airport South to Cloghran Rbt (Not Via Airport)	1360	1211	Average Range	15.02 11.05 to 22.25	19.51 13.91 to 32.64
Airport South to Cloghran Rbt (Via Airport)	2945	N/A	Average Range	N/A N/A	N/A N/A
Cloghran Roundabout to Airside Business Park	1346	0	Average Range	38.46 21.35 to 43.65	65.50 65.50
Airside Business Park to Swords Main Street	1898	1242	Average Range	16.39 11.90 to 21.56	17.39 16.27 to 18.67
Cloghran Roundabout to County Council Offices	3526	1242	Average Range	21.22 16.55 to 25.59	N/A N/A
Swords Main Street to County Council Offices	282	0	Average Range	15.86 8.60 to 39.08	13.01 11.04 to 15.15

Total Outbound Distance Eden Quay to Swords CC	Direct 14077	5923	Average Range	12.63 10.81 to 15.13	18.91 18.68 to 19.12
Total Outbound Distance Eden Quay to Swords CC (A)	Via Airport 15662	N/A	Average Range	N/A N/A	N/A N/A

Code: A Via Airport

**Table 9i Tallaght QBC**

Tallaght QBC Roadside Survey Results					
Sectional Results - Bus Journey Speeds - November 2003					
Section	Distance Metres	Bus Lane Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Tallaght Bypass to Main Street	3226	N/A	Average Range	26.63 19.99 to 38.97	32.17 29.40 to 37.58
Main Street to West M50	1850	1106	Average Range	23.78 19.08 to 36.39	27.52 23.04 to 41.11
West M50 to East M50	673	0	Average Range	15.14 10.18 to 24.22	26.92 18.63 to 49.42
East M50 to Oldbridge Road	1412	1054	Average Range	21.27 15.04 to 40.99	61.97 61.97
Oldbridge Road to Fortfield Road	1212	279	Average Range	22.49 9.00 to 46.92	14.74 12.26 to 18.10
Fortfield Road to Rathdown Park	595	522	Average Range	8.37 4.89 to 20.60	12.45 9.35 to 15.08
Rathdown Park to Terenure Road East	806	0	Average Range	7.38 4.92 to 22.49	4.43 3.24 to 6.04
Terenure Road East to Rathgar Road	1256	1034	Average Range	15.28 10.18 to 26.14	24.18 18.16 to 50.24
Rathgar Road to Leinster Road	495	0	Average Range	5.64 2.56 to 18.37	16.05 9.00 to 28.75
Leinster Road to Canal	594	348	Average Range	10.09 3.27 to 26.74	19.99 11.31 to 30.99
Canal to Camden Street Lower	525	0	Average Range	7.59 4.25 to 9.90	7.62 5.87 to 11.96
Camden Street Lower to Dame Street	1252	798	Average Range	8.63 7.41 to 9.31	10.46 10.17 to 10.76
Dame Street to Tara Street Bridge	821	N/A	Average Range	6.95 5.90 to 8.28	9.29 9.29

Total Inbound Distance 14717

West M50 to Dame Street	8820	4035	Average Range	11.11 9.46 to 14.56	19.26 16.71 to 21.73
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Main St to Dame Street	10670	5141	Average Range	12.76 10.85 to 15.82	20.54 18.30 to 23.42
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**Table 9i Tallaght QBC (continued)**

Tallaght QBC Roadside Survey Results					
Sectional Results - Bus Journey Speeds - November 2003					
Section	Distance Metres	Bus Lane Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Eden Quay to Dame Street	806	0	Average Range	8.39 7.38 to 11.75	8.58 4.49 to 14.02
Dame Street to Camden Street Lower	1253	428	Average Range	10.00 7.42 to 11.84	13.79 11.28 to 16.23
Camden Street Lower to Canal	748	131	Average Range	8.94 6.28 to 19.10	13.60 11.46 to 22.25
Canal to Leinster Road	595	109	Average Range	9.48 7.62 to 13.39	21.64 15.08 to 62.96
Leinster Road to Rathgar Road	357	52	Average Range	6.87 4.56 to 8.51	5.90 3.68 to 8.80
Rathgar Road to Terenure Road East	1410	228	Average Range	16.17 12.59 to 21.42	20.98 16.75 to 28.04
Terenure Road East to Rathdown Park	800	0	Average Range	7.35 6.21 to 9.14	7.96 6.09 to 12.31
Rathdown Park to Fortfield Road	596	0	Average Range	39.73 36.98 to 43.77	31.56 24.95 to 47.68
Fortfield Road to Oldbridge Road	1298	281	Average Range	23.13 14.56 to 46.27	30.94 26.70 to 42.49
Oldbridge Road to East of M50	1327	419	Average Range	6.95 5.59 to 8.70	16.31 13.85 to 19.82
East of M50 to West of M50	653	0	Average Range	32.19 32.19	32.19 30.54 to 34.58
West of M50 to Main Street Tallaght	1917	0	Average Range	18.60 16.24 to 20.91	N/A N/A
Main Street Tallaght to Tallaght Bypass	3279	N/A	Average Range	19.04 15.27 to 27.32	N/A N/A

Total Outbound Distance 15039

Dame Street to West M50	9037	1648	Average Range	12.32 11.92 to 12.38	17.09 15.94 to 18.41
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Eden Quay to Main Street	11760	1648	Average Range	12.54 11.30 to 13.49	N/A N/A
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Camden Street to West M50	7784	1220	Average Range	12.70 12.07 to 13.65	17.18 16.10 to 18.42
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## 12 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**)

The results are shown for 2004 and are compared with 2002 and 2003. 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 2003										
Average Journey Time	Average Speed KM/H	2002	Section	Section Length Metres	Bus Lane Metres	QBC	Range		Position	2002 Position
							Low KM/H	High KM/H		
174	2.94	N/A	Camden Street to Bishop Street	142	0	Rathfarnham	1.56	5.62	97	N/A
189	4.08	2.38	Leinster Road West to Harolds Cross Road	214	0	Rathfarnham	1.95	12.03	96	74/74
120	4.50	4.57	Kilmore Road to St Davids Wood	150	0	Malahide	2.01	18.63	95	68/74
234	4.89	6.06	Collins Avenue to Casino Park	318	0	Malahide	3.23	11.01	94	64/74
991	5.17	9.28	Omni Park to Collins Avenue	1423	743	Swords	3.29	20.33	93	50/74
316	5.64	3.21	Rathgar Road to Leinster Road	495	0	Tallaght	2.56	18.37	92	73/74
166	5.79	10.33	Palmerston to Chapelizod Slip	267	267	Lucan	3.91	11.72	91	45/74
705	6.53	6.66	Capel Street to Tara Street	1278	221	Blanchardstown	4.22	9.39	90	63/74
271	6.60	5.88	Ellis Quay to Arran Quay	497	0	Lucan	2.93	17.72	89	65/74
297	6.85	3.52	Camden Street to Stephen Street	565	0	Rathfarnham	4.63	11.36	88	72/74
425	6.95	6.81	Dame Street to Tara Street	821	0	Tallaght	5.90	8.28	87	61/74
278	7.08	N/A	Mellowes Bridge to Finglas Road	547	0	Finglas	4.54	12.87	86	N/A
393	7.38	4.29	Rathdown Park to Terenure Road East	806	0	Tallaght	4.92	22.49	85	70/74
249	7.59	7.13	Canal to Camden Street Lower	525	0	Tallaght	4.25	9.90	84	59/74
274	7.82	8.08	Parkgate Street to Ellis Quay	595	558	Lucan	3.60	19.83	83	56/74
378	8.01	N/A	Ratoath Road to North Circular Road	841	0	Blanchardstown	4.61	37.85	82	N/A
592	8.09	N/A	Dorset Street Lower to O'Connell Street	1330	1293	Swords	4.31	14.64	81	N/A
256	8.37	40.43	Fortfield Road to Rathdown Park	595	522	Tallaght	4.89	20.60	80	4/74
522	8.63	N/A	Camden Street Lower to Dame Street	1252	798	Tallaght	7.41	9.31	79	N/A
1011	8.69	9.30	Richmond Road to O'Connell Street	2441	2134	Swords	5.63	14.11	78	49/74
440	8.74	10.71	Mount Brown to Cornmarket	1068	725	North Clondalkin	3.56	18.31	77	42/74
552	8.90	8.20	Cornmarket to Westmoreland Street	1365	197	North Clondalkin	5.52	15.80	76	55/74
771	8.96	N/A	Penny Hill Pub to Foxhunter	1920	154	Lucan	4.88	25.04	75	N/A
263	9.01	N/A	Manor Street to Blackhall Place	658	506	Blanchardstown	4.62	18.51	74	N/A
169	9.26	8.85	Amiens Street to Talbot Street	435	0	Malahide	6.39	17.40	73	53/74
384	9.38	N/A	Blackhall Place to Capel Street	1001	312	Blanchardstown	6.29	15.53	72	N/A
249	9.53	N/A	North Circular Road to Manor Street	659	120	Blanchardstown	5.70	19.29	71	N/A
104	9.59	6.69	Rathfarnham Road to Brookvale Road	277	0	Rathfarnham	5.42	19.95	70	62/74
297	9.68	N/A	Heuston Station to Ellis Quay	785	393	Lucan	4.61	16.62	69	N/A
392	9.80	N/A	Arran Quay to Bachelors Walk	1067	936	Lucan	6.70	14.55	68	N/A
404	9.90	N/A	Richmond Road to Dorset Street Lower	1111	641	Swords	6.47	16.87	67	N/A
643	10.03	10.48	Leeson Street to Westmoreland Street	1791	957	Stillorgan	7.88	13.75	66	44/74
212	10.09	9.26	Leinster Road to Canal	594	348	Tallaght	3.27	26.74	65	52/74

**Table 10 Morning Peak Period League Table (continued)**

Quality Bus Corridors - Average Sectional Bus Journey Times & Speeds - AM Peak League Table - November 2003										
224	10.53	9.87	Stephen Street to Westmoreland Street	655	514	Rathfarnham	7.08	19.82	64	47/74
153	11.25	4.43	Clanbrassil Street to South Circular Road	478	0	Rathfarnham	6.49	19.12	63	69/74
87	11.67	N/A	County Council Offices to Swords Main St	282	0	Swords	6.72	16.92	62	N/A
677	11.74	12.42	Coolmine Road to River Road Roundabout	2208	361	Blanchardstown	6.16	26.23	61	39/74
202	11.96	10.59	St Davids Wood to Collins Avenue	671	601	Malahide	6.94	24.90	60	43/74
127	11.99	N/A	Bishop Street to Stephen Street	423	0	Rathfarnham	4.98	22.72	59	N/A
311	12.65	14.00	Dorset Street Lower to Parnell Square East	1093	1093	Finglas	8.16	22.36	58	32/74
334	12.82	N/A	Donnybrook to Morehampton Road	1190	1167	Stillorgan	10.25	23.54	57	N/A
209	13.07	9.94	Brookvale Road to Terenure Road East	759	525	Rathfarnham	7.90	40.19	56	46/74
211	13.26	7.54	South Circular Road to Camden Street	777	532	Rathfarnham	10.32	22.38	55	57/74
248	13.89	15.38	Prospect/Whitworth Road to Dorset St Lower	957	17	Finglas	7.13	31.04	54	29/74
383	14.40	13.86	Greencastle Road to Kilmore Road	1532	998	Malahide	8.68	29.97	53	33/74
202	14.54	5.03	Terenure Road East to Mount Tallant Avenue	816	0	Rathfarnham	8.03	31.24	52	66/74
362	14.70	N/A	Abbey Road to Foxrock Church	1478	N/A	Stillorgan	11.25	23.34	51	N/A
379	14.80	N/A	Coldcut Road to Ballyfermot/Le Fanu Road	1558	719	North Clondalkin	8.09	25.15	50	N/A
746	15.10	12.41	Oliver Plunkett Road to Foxrock Church	3130	N/A	Stillorgan	12.85	20.41	49	40/74
160	15.14	14.33	West M50 to East M50	673	0	Tallaght	10.18	24.22	48	30/74
296	15.28	3.77	Terenure Road East to Rathgar Road	1256	1034	Tallaght	10.18	26.14	47	71/74
151	15.30	N/A	Ballyfermot/Le Fanu Road to Kylemore Road	642	162	North Clondalkin	7.18	48.15	46	N/A
325	15.37	23.79	Cloghran Roundabout to Airport South	1388	476	Swords	10.34	31.63	45	13/74
352	15.67	17.73	Collins Avenue to Richmond Road	1532	1183	Swords	10.42	26.26	44	25/74
865	15.72	N/A	Fonthill Road to Coldcut Road	3778	563	North Clondalkin	7.66	35.24	43	N/A
534	15.80	12.56	Con Colbert Road to Ellis Quay	2344	393	Lucan	9.73	27.58	42	37/74
571	15.92	9.59	Donnybrook to Leeson Street	2525	1827	Stillorgan	12.45	20.70	41	48/74
369	16.12	N/A	Oliver Plunkett Road to Abbey Road	1652	N/A	Stillorgan	13.49	27.92	40	N/A
1024	16.43	N/A	Superquinn to Penny Hill Pub	4675	N/A	Lucan	10.57	26.09	39	N/A
250	16.56	N/A	South Circular Road to Mount Brown	1150	278	North Clondalkin	8.13	28.75	38	N/A
212	16.69	22.40	River Road to New River Road	983	300	Blanchardstown	8.61	49.86	37	14/74
409	16.70	N/A	Fairview to Amiens Street	1897	1592	Malahide	12.02	25.39	36	N/A
793	16.98	27.88	Airport South to Omni Park	3741	3269	Swords	11.09	38.70	35	7/74
443	17.05	13.20	Oakdown Road to Rathfarnham Road	2098	1900	Rathfarnham	12.10	23.90	34	34/74
855	17.22	18.52	Priorswood to Greencastle Road via Darndale	4089	0	Malahide	12.74	21.12	33	21/74
808	17.31	19.96	Cloghran Roundabout to Airport Sth via Apt	3886	N/A	Swords	10.67	23.32	32	18/74

**Table 10 Morning Peak Period League Table (continued)**

Quality Bus Corridors - Average Sectional Bus Journey Times & Speeds - AM Peak League Table - November 2003										
222	17.42	24.78	Blakestown Way to Rear of Town Centre	1074	0	Blanchardstown	8.11	25.78	31	11/74
472	18.37	22.35	Dun Loaghaire to Oliver Plunkett Road	2409	N/A	Stillorgan	15.62	27.36	30	15/74
230	18.55	21.54	Clare Hall to Priorswood Road	1185	1017	Malahide	8.27	76.20	29	16/74
441	18.71	N/A	Kylemore Road to Emmet Road	2292	236	North Clondalkin	12.15	28.06	28	N/A
1489	18.77	16.72	Clonsilla to Blanchardstown Road South	7763	0	Blanchardstown	14.59	23.00	27	27/74
256	18.77	N/A	Morehampton Road to Leeson Street	1335	660	Stillorgan	12.61	32.92	26	N/A
458	18.83	19.46	Ashtown Roundabout to Ratoath Road	2395	2075	Blanchardstown	10.04	48.17	25	19/74
196	19.15	7.52	Harolds Cross Road to Clanbrassil Street	1043	845	Rathfarnham	12.31	46.35	24	58/74
632	19.33	13.15	Foxrock Church to Mount Merrion Avenue	3393	3393	Stillorgan	15.90	34.70	23	35/74
153	20.02	N/A	Emmet Road to South Circular Road	851	334	North Clondalkin	8.58	42.55	22	N/A
89	20.76	4.73	Mount Tallant Avenue to Leinster Road West	513	417	Rathfarnham	9.10	59.53	21	67/74
294	21.05	18.31	Blanchardstown Road South to Coolmine Rd	1719	388	Blanchardstown	8.85	45.18	20	22/74
239	21.27	40.02	East M50 to Oldbridge Road	1412	1054	Tallaght	15.04	40.99	19	5/74
551	21.34	12.71	Mount Merrion Avenue to Donnybrook	3267	2525	Stillorgan	13.08	31.11	18	36/74
290	21.44	26.79	Rear of Town Centre to River Road	1727	N/A	Blanchardstown	10.45	31.09	17	8/74
194	22.49	12.47	Oldbridge Road to Fortfield Road	1212	279	Tallaght	9.00	46.92	16	38/74
151	22.67	14.32	Conyngham Road to Parkgate Street	951	674	Lucan	12.68	52.69	15	31/74
247	22.72	N/A	Con Colbert Road to Heuston Station	1559	0	Lucan	15.38	48.39	14	N/A
280	23.78	25.13	Main Street to West M50	1850	1106	Tallaght	19.08	36.39	13	10/74
481	24.11	19.20	Finglas Road to Prospect Road	3222	2978	Finglas	17.34	47.35	12	20/74
154	26.48	N/A	Casino Park to Fairview	1133	1054	Malahide	17.58	55.13	11	N/A
216	26.58	28.71	West M50 to Palmerston	1595	390	Lucan	14.11	47.07	10	6/74
436	26.63	24.45	Tallaght Bypass to Main Street	3226	N/A	Tallaght	19.99	38.97	9	12/74
507	28.97	18.00	Chapelizod Slip to Conyngham Road	4080	253	Lucan	20.69	45.33	8	23/74
243	30.01	25.86	Foxhunter to West M50	2026	2026	Lucan	17.88	62.89	7	9/74
380	34.45	17.24	County Council Offices to Cloghran R'bout	3636	2258	Swords	26.82	44.52	6	26/74
100	35.70	51.00	Priorswood Road to Greencastle Road	992	671	Malahide	20.64	79.36	5	1/74
191	36.91	44.62	New River Road to Ashtown Roundabout	1958	1958	Blanchardstown	16.43	60.78	4	2/74
184	39.91	N/A	Main Street to Airside Business Park	2040	1249	Swords	23.46	78.97	3	N/A
109	43.39	N/A	Airside Business Park to Cloghran R'bout	1314	1009	Swords	27.35	89.29	2	N/A
181	71.61	44.25	Chapelizod Slip to Con Colbert Road	3601	3275	Lucan	54.24	87.01	1	3/74

## 13 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. The exception is North Clondalkin where one particular section is shown during the morning and afternoon/evening peak periods.

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 except one operating over the entire morning peak period comfortably exceed the QBC Specification
- Despite the presence of continuous bus priority car average speed exceeds bus average speed
- Car speeds of between 12.63 kilometres per hour and 72.65 kilometres per hour over the section show a greater variation than bus speeds
- The slowest car at 12.63 kilometres per hour is slower than the slowest bus which operates at 16.43 kilometres per hour

**Table 11b** shows the section from Ashtown Roundabout to North Circular Road, a distance of 3236 metres. Although this section has bus priority of 2075 metres, it is not continuous and there is no priority at all on the 841 metre section between Ratoath Road and North Circular Road.

- Although bus average speed is 14.10 kilometres per hour over the whole of the morning peak period all buses operating between 0809 and 0851 operate at speeds less than this average
- Car average speed comfortably exceeds bus average speed

**Table 11c** shows the section from Ratoath Road to Capel Street/Ormond Quay representing the inner city section of the QBC. This section measures 3159metres of which 938 metres has bus priority.

- Bus average speed at 8.56 kilometres per hour is less than half the QBC specification
- All buses between 0736 and 0938 operate at speeds of less than 10.20 kilometres per hour
- During this period all buses operate at speeds between 6.29 and 10.20 kilometres per hour

Table 11a Blanchardstown QBC

New River Road to Ashtown Roundabout Bus Speeds AM Peak  
1958 Metres 1958 Metres of Bus Lane

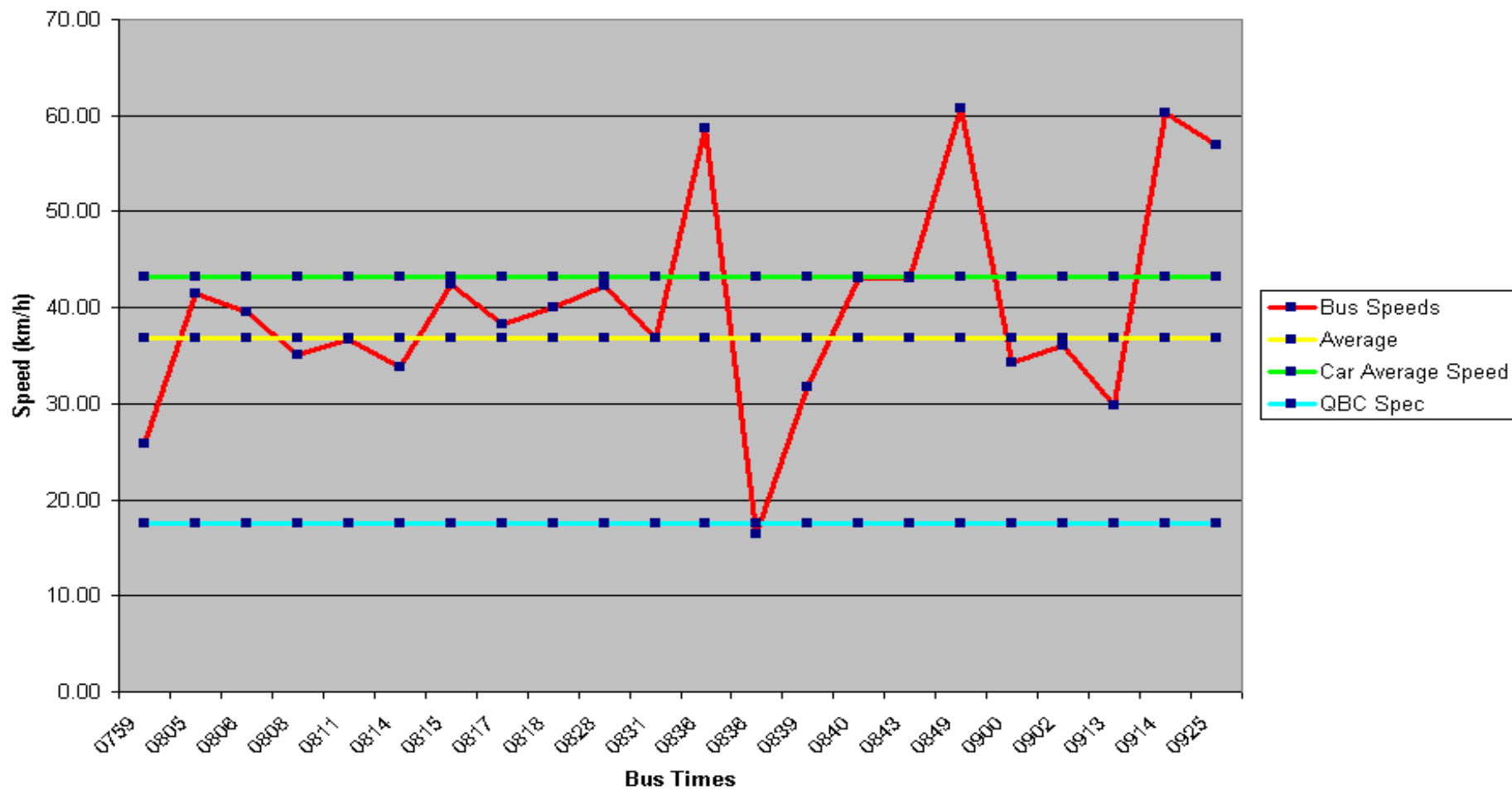




Table 11b Blanchardstown QBC

Ashtown to North Circular Road Bus Speeds AM Peak  
3236 Metres 2075 Metres of Bus Lane

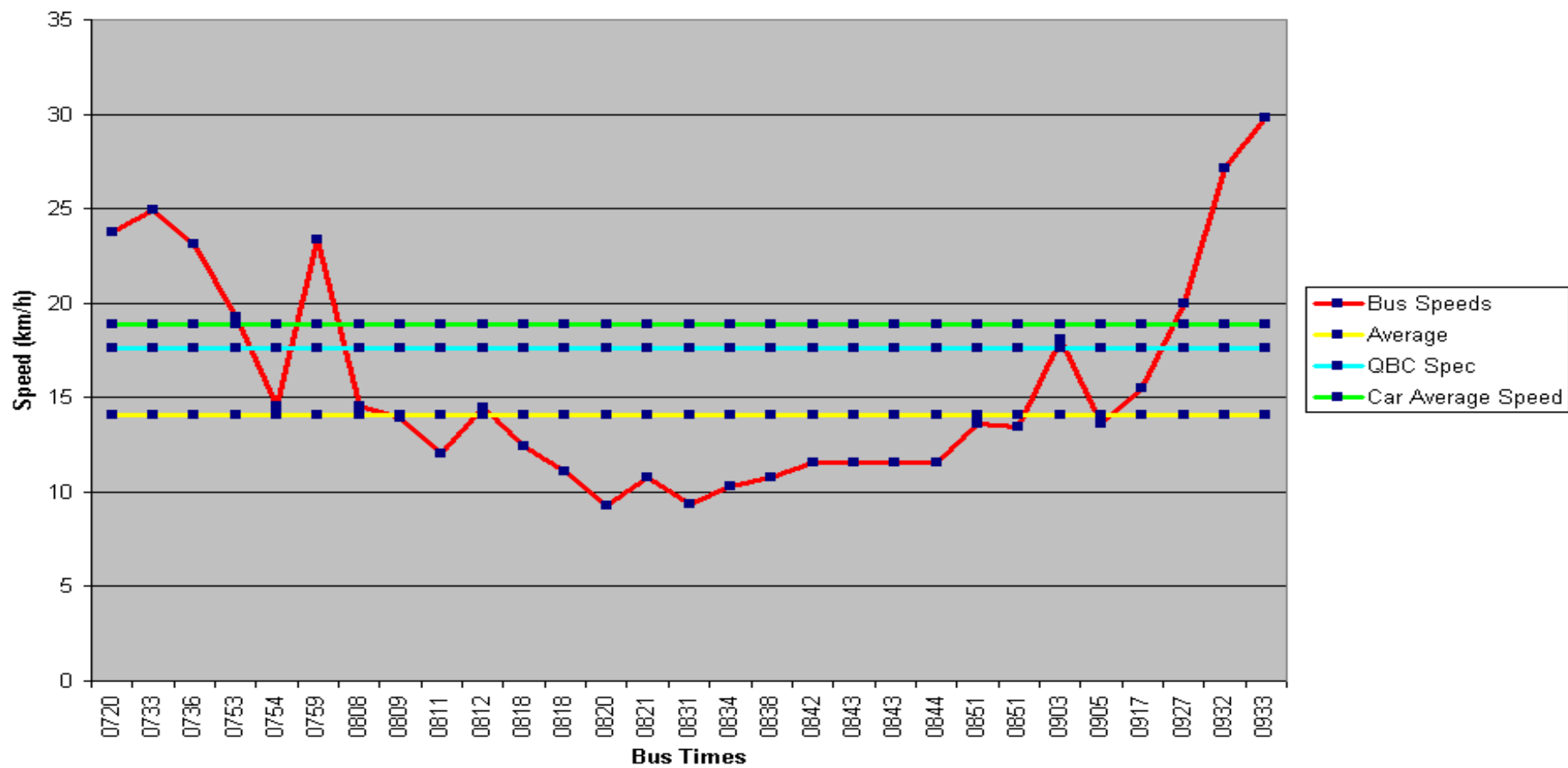
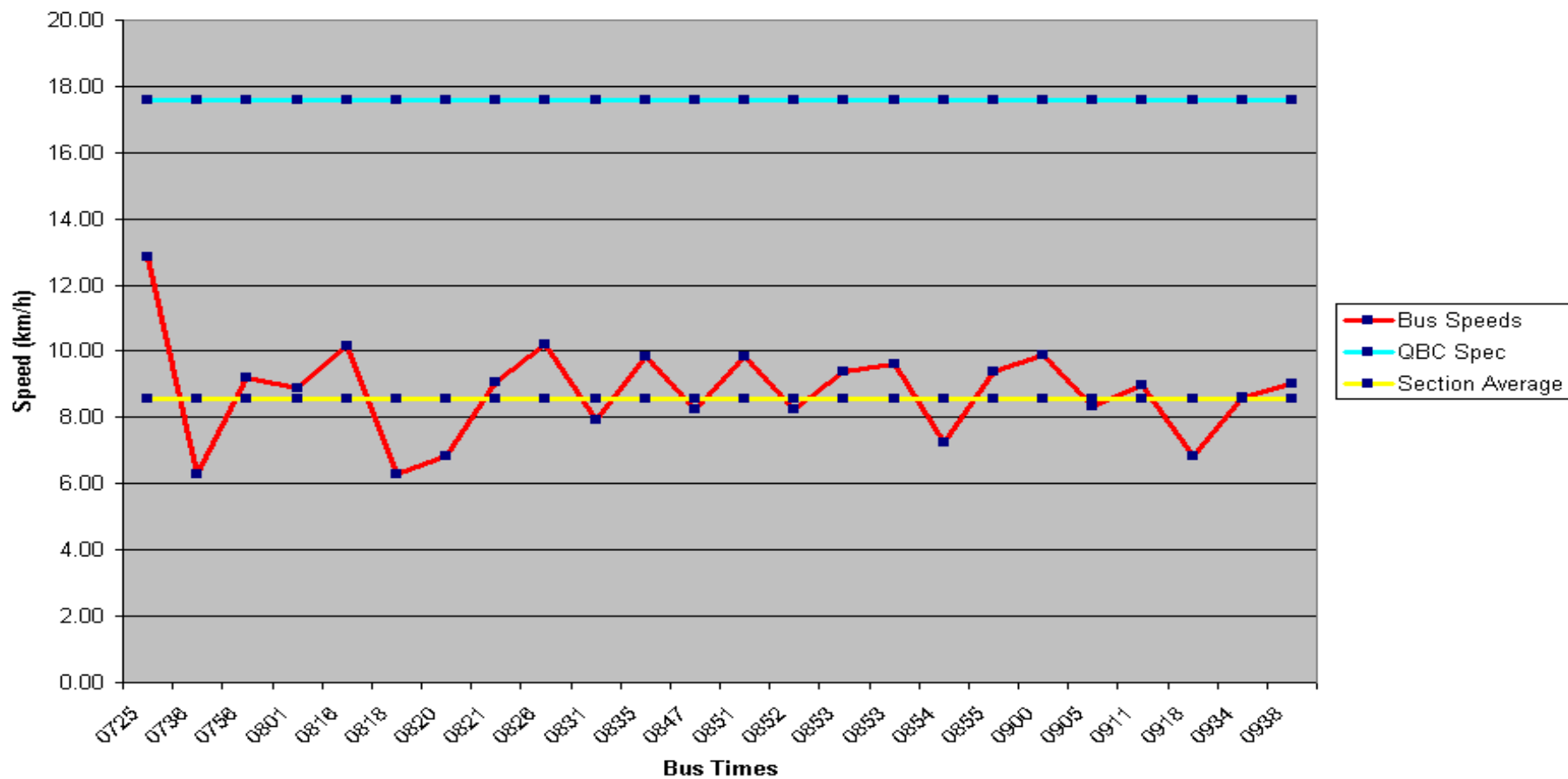


Table 11c Blanchardstown QBC

Ratoath Road to Capel Street Bus Speeds AM Peak  
3159 Metres 938 Metres of Bus Lane



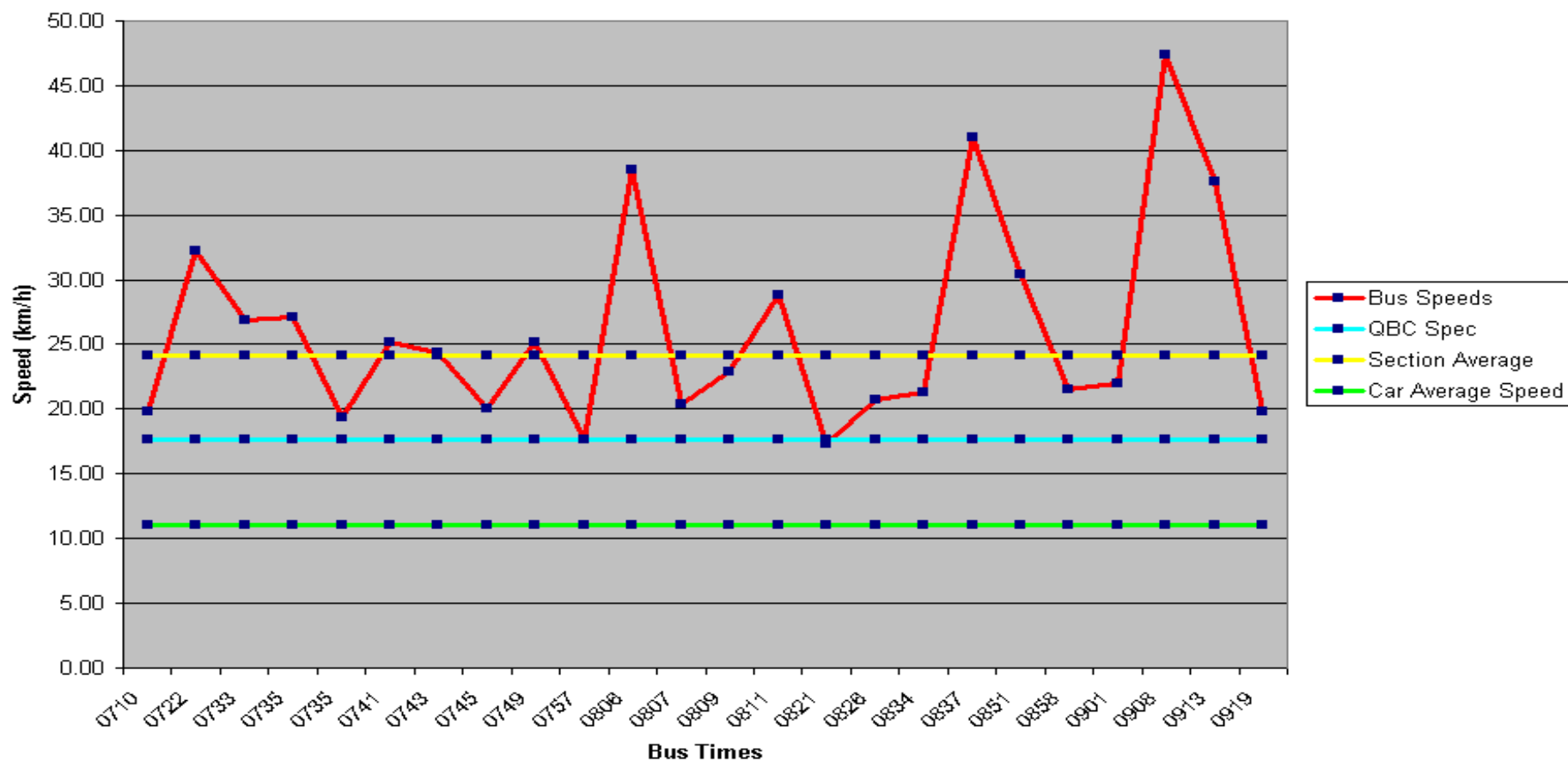
## **Finglas QBC**

**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 comfortably exceeds the QBC specification
- All buses operate at speeds in excess of the QBC specification apart from one at 0821 which operates at 17.34 kilometres per hour
- Bus average speed is more than twice car average speed demonstrating the effectiveness of the infrastructure

Table 11d Finglas QBC

Finglas Road to Prospect Road Bus Speeds AM Peak  
3222 Metres 2978 Metres of Bus Lane



## Lucan QBC

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

**Table 11e** shows the results for the whole QBC from Foxhunter pub on the N4 immediately east of Lucan and Bachelors Walk. The total distance measures 11398 metres of which 7287 metres has bus priority. This includes the bus priority running along the hard shoulder of the Chapelizod bypass.

- All buses operate at speeds in excess of the QBC specification
- All buses except one operate at a higher speed than the car average speed

**Table 11f** shows the results for the section from Heuston Station to Bachelors Walk representing the inner city section of the QBC. The section measures 2349 metres of which 1329 metres has bus priority.

- The bus average speed is almost 50% below QBC specification
- The fastest bus operates at 13.13 kilometres per hour
- Bus average speed is marginally faster than car average speed

**Table 11g** shows part of the section as shown in **Table 11f** where there is no bus priority. This section is between Ellis Quay and Arran Quay, a distance of 497 metres.

- All traffic moves very slowly over this section with severe congestion around 0830 and again just after 0900
- Bus and car average speeds are similar

Table 11e Lucan QBC

Lucan QBC Bus Speeds AM Peak  
 Foxhunter to Bachelors Walk via Chapelizod Bypass  
 11397 Metres 7287 Metres of Bus Lane

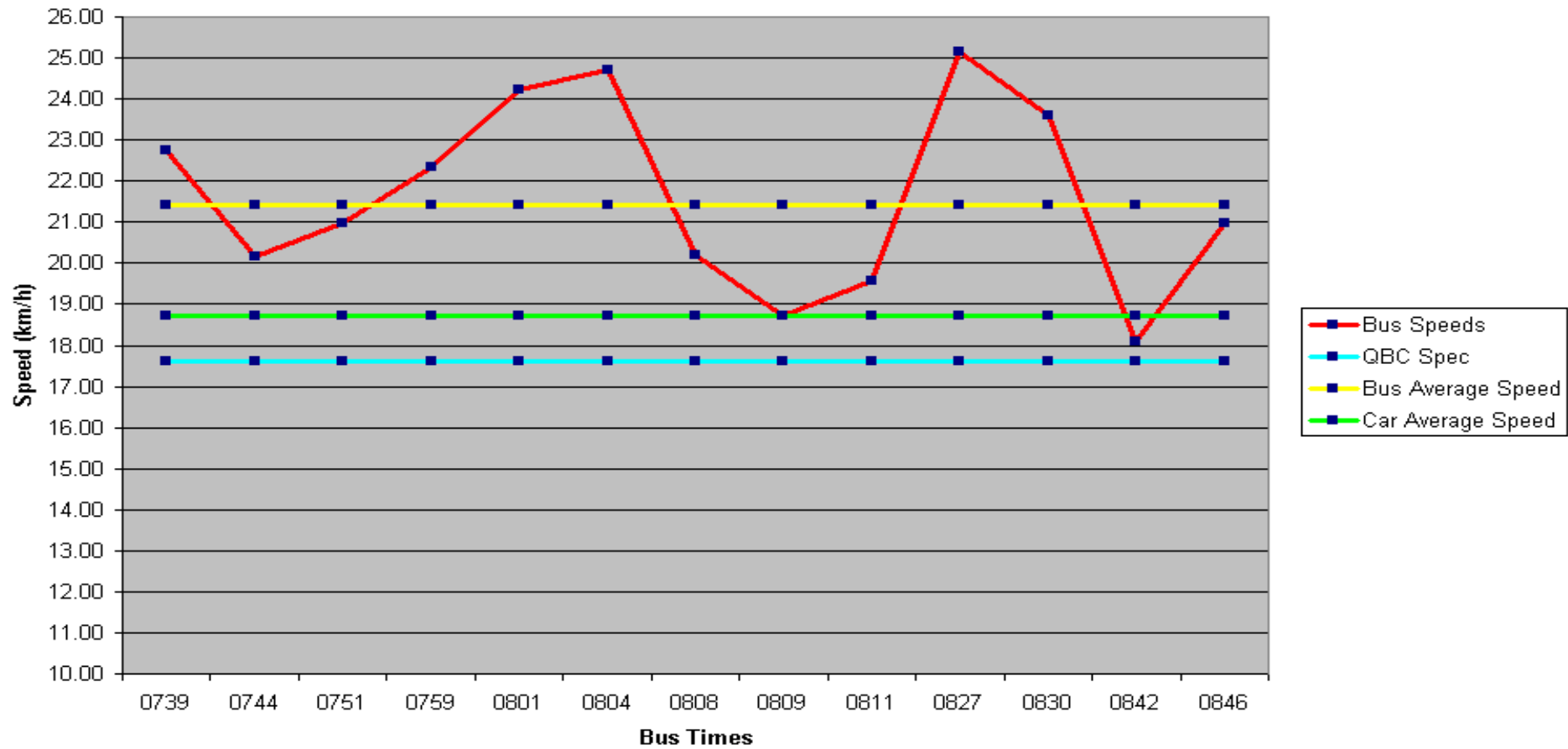


Table 11f Lucan QBC

Heuston Station to Bachelor's Walk Bus Speeds AM Peak  
2349 Metres 1329 Metres of Bus Lane

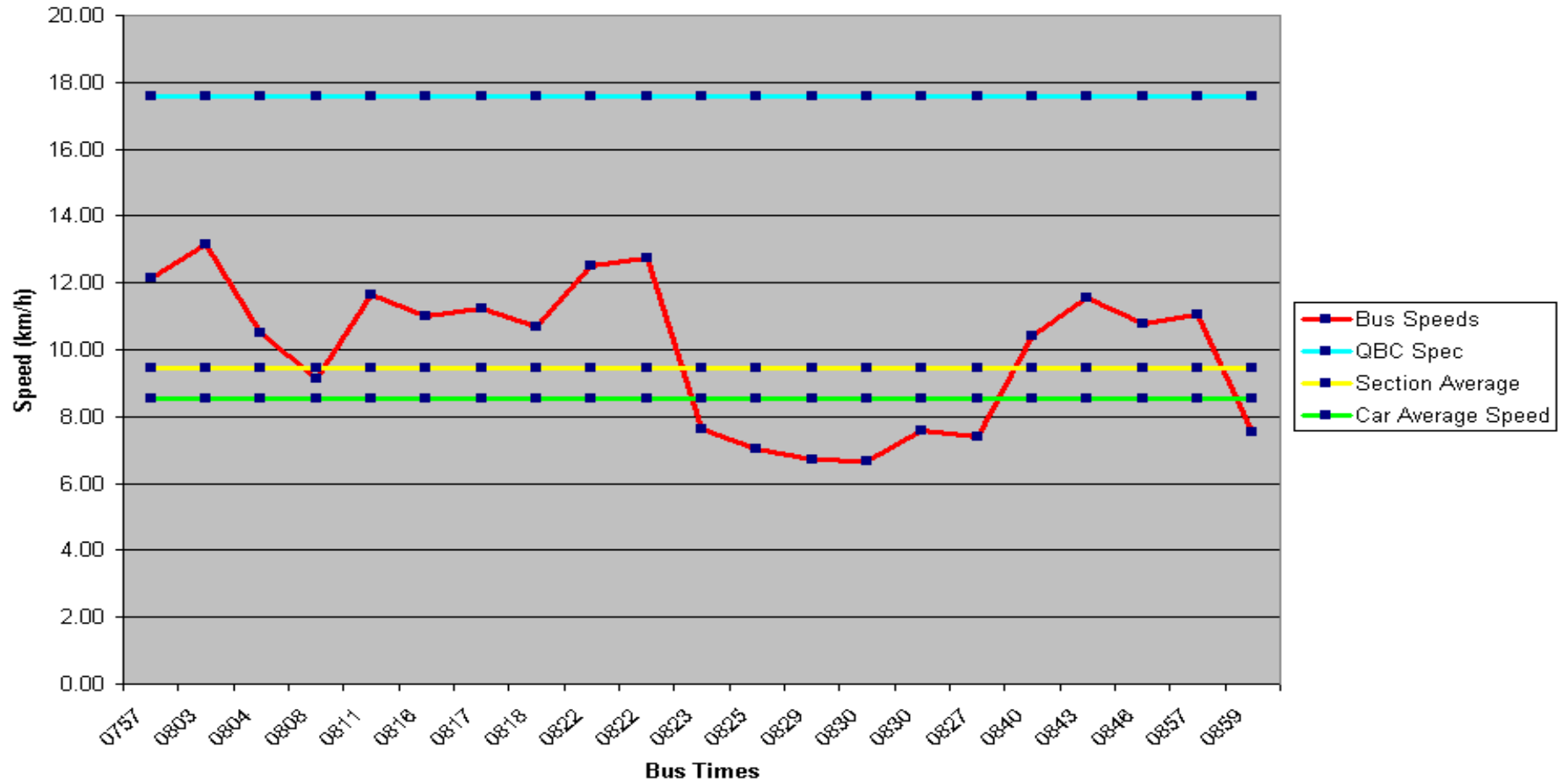
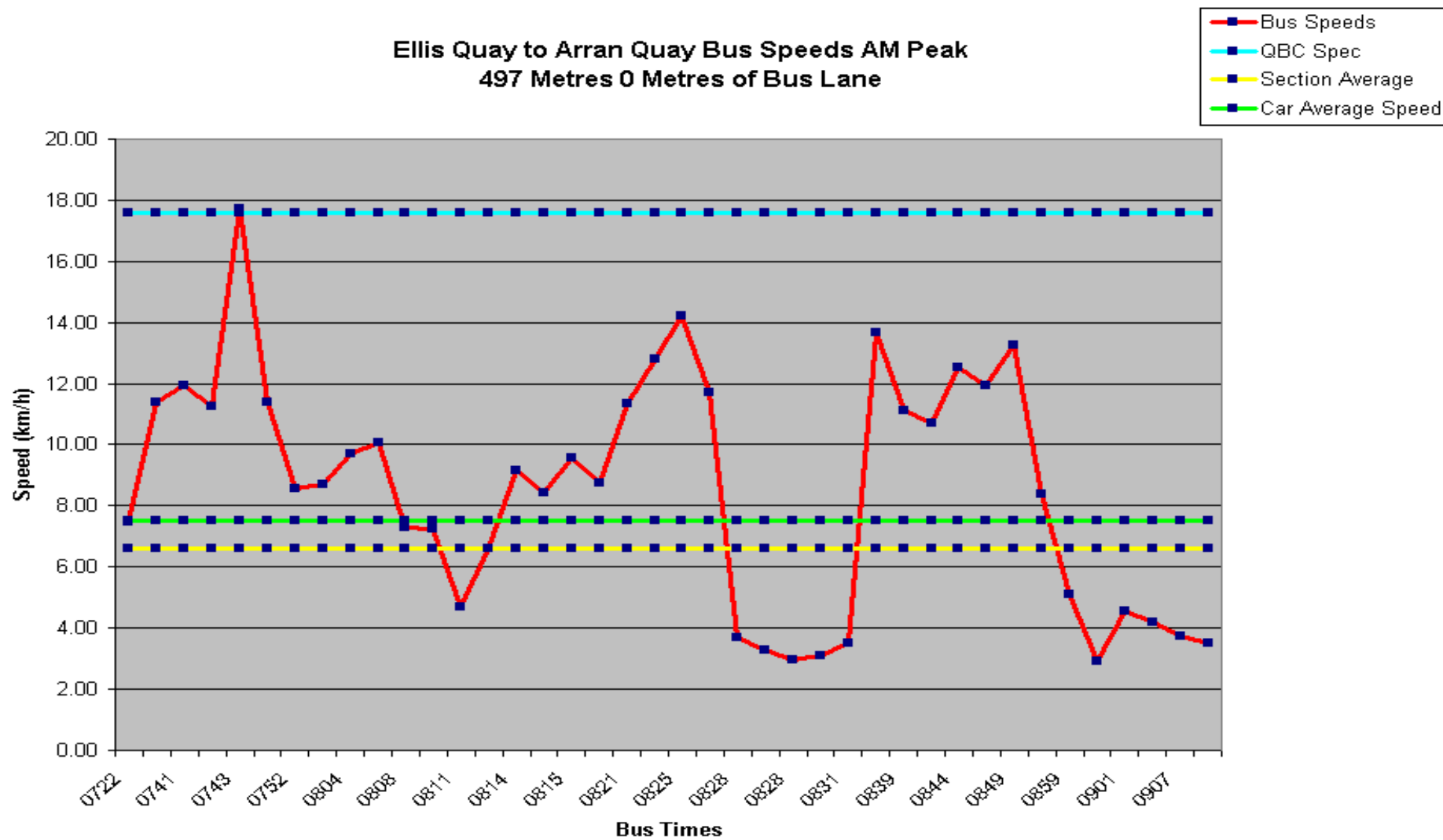


Table 11g Lucan QBC

Ellis Quay to Arran Quay Bus Speeds AM Peak  
497 Metres 0 Metres of Bus Lane





## **Malahide QBC**

**Table 11h** shows the results for the Greencastle Road to Amiens Street section of the QBC where comparison can be made between bus and car speeds.

This section measures 5701 metres of which 4182 metres has bus priority.

- Bus average speed is comfortably higher than car average speed
- Bus average speeds are considerably lower between 0737 and 0846
- Bus average speeds is well below the QBC Specification

**Table 11i** shows the results for the short 150 metre section north and south of the junction with Kilmore Road which has no bus priority. The section includes right turning traffic from Malahide Road into Kilmore Road.

- All buses are affected by the resulting congestion between 0727 and 0839
- Bus average speed only rises to 4.50 kilometres per hour due to higher operating speeds prior to 0727 and after 0839

**Table 11j** shows the results for the section between Collins Avenue and Casino Park, a distance of 318 metres without any bus priority.

- All buses between 0717 and 0859 operate at speeds of less than 10 kilometres per hour

Table 11h Malahide QBC

Greencastle Road to Amiens Street Bus Speeds AM Peak  
5701 Metres 4182 Metres of Bus Lane

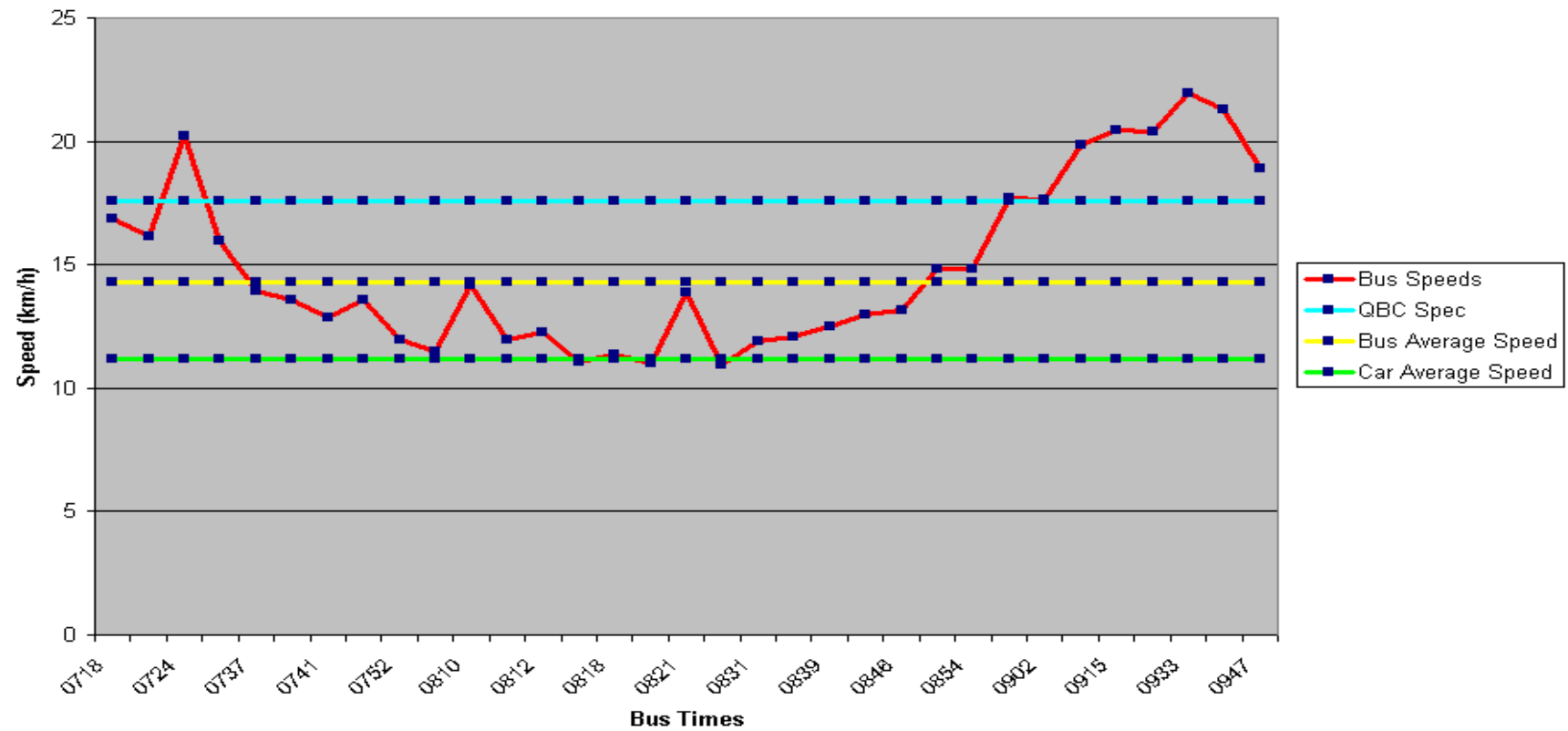


Table 11i Malahide QBC

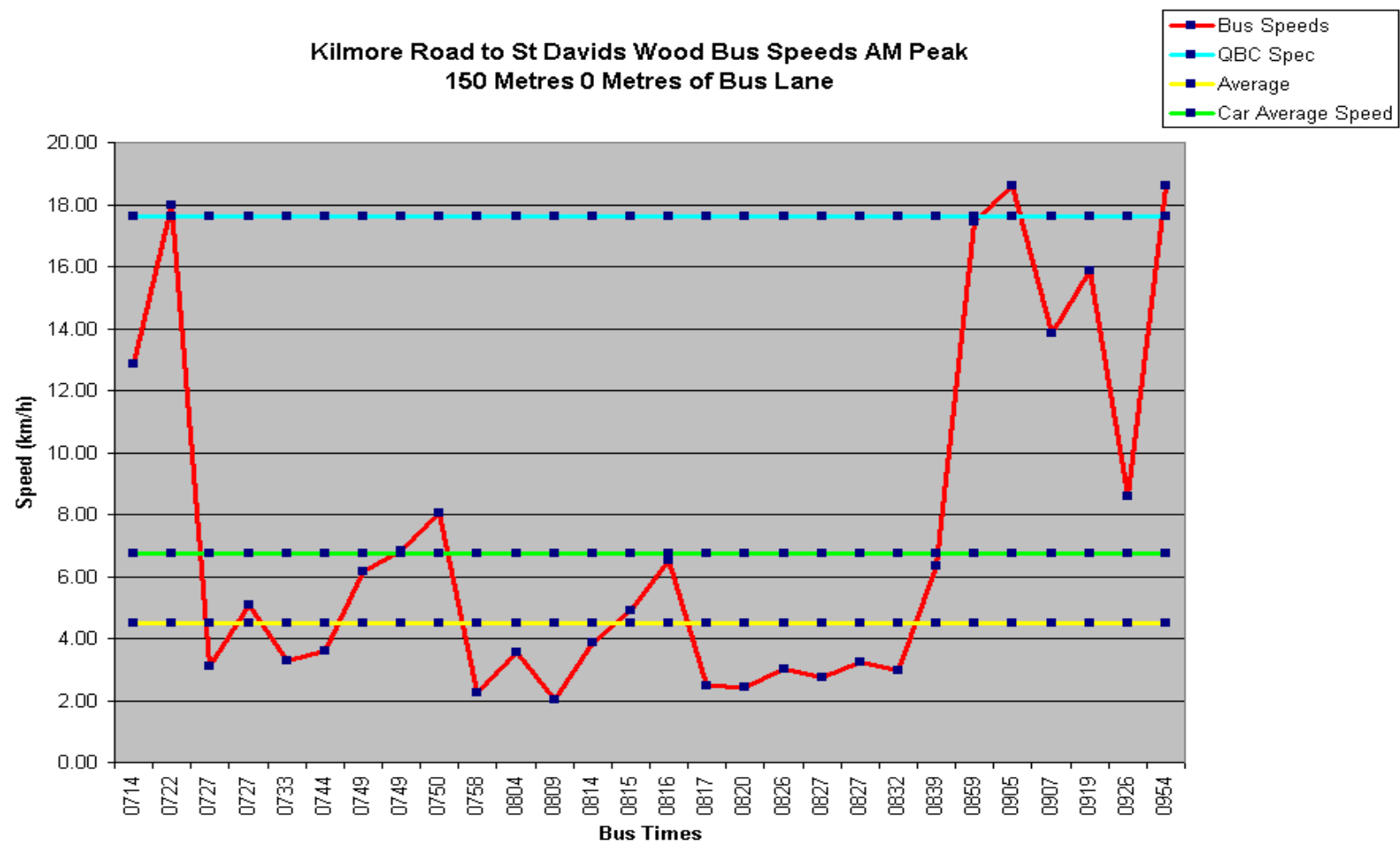
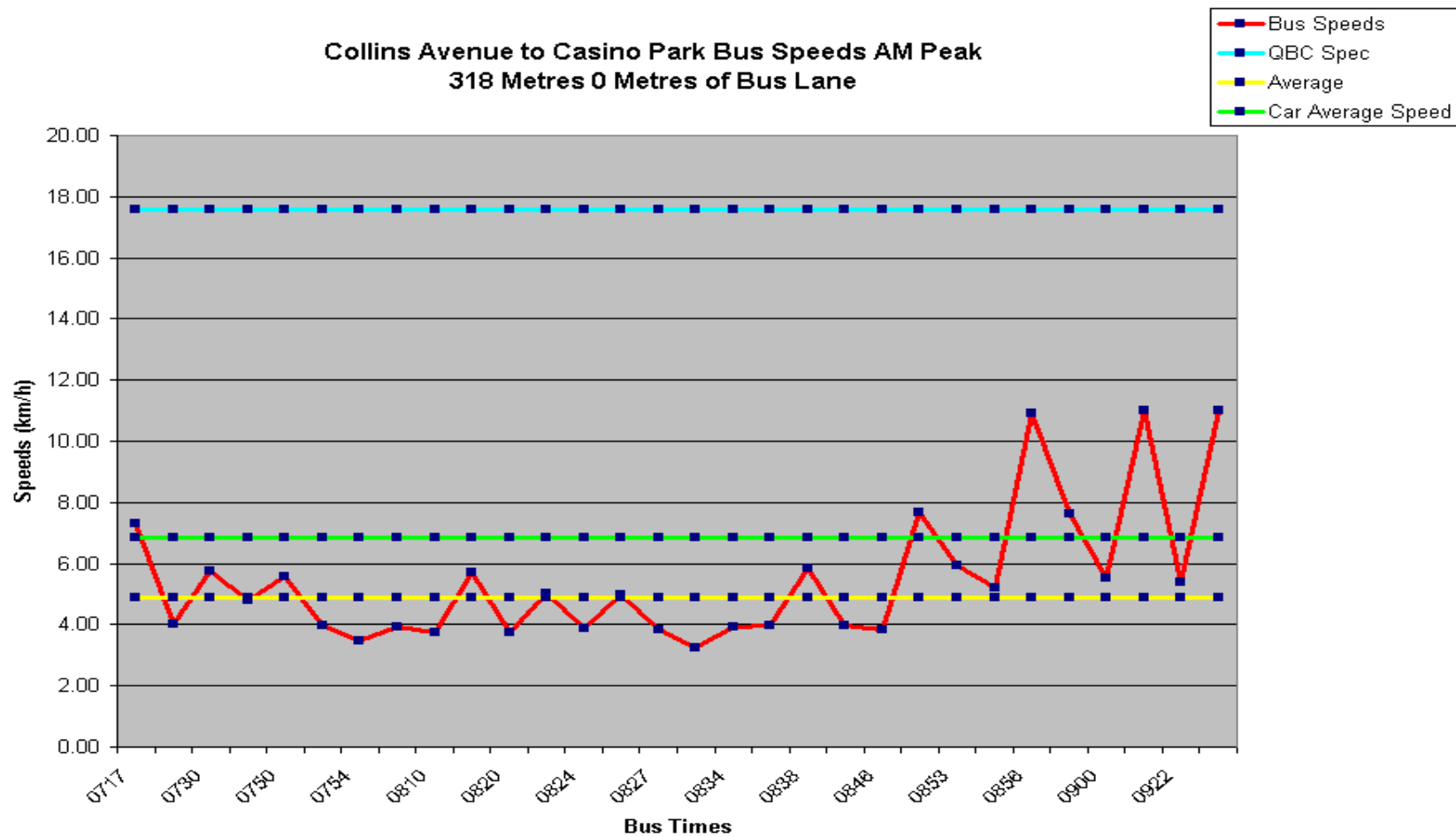


Table 11j Malahide QBC



## North Clondalkin QBC

**Table 11k** shows the results for the Coldcut Road to Cornmarket section of the QBC where comparison can be made between bus and car speeds.

The section measures 7561 metres of which 2454 metres has bus priority.

- Bus average speed is comfortably less than car average speed
- All buses between 0750 and 0902 operate at speeds below the QBC specification

**Table 11l** shows the results for the afternoon/evening peak period for the section from James's Street to the junction of Emmet Road and Tyrconnell Road.

The section measures 2277 metres and there is no priority for buses.

- Bus average speed although well below the QBC specification had risen from 6.4 kilometres per hour in November 2002 to 9.69 kilometres per hour in November 2003. This improvement had been achieved following banning the right turn from Old Kilmainham into South Circular Road

Table 11k North Clondalkin QBC

Coldcut Road to Cornmarket Bus v Car Speeds AM Peak  
7561 Metres 2454 Metres of Bus Lane

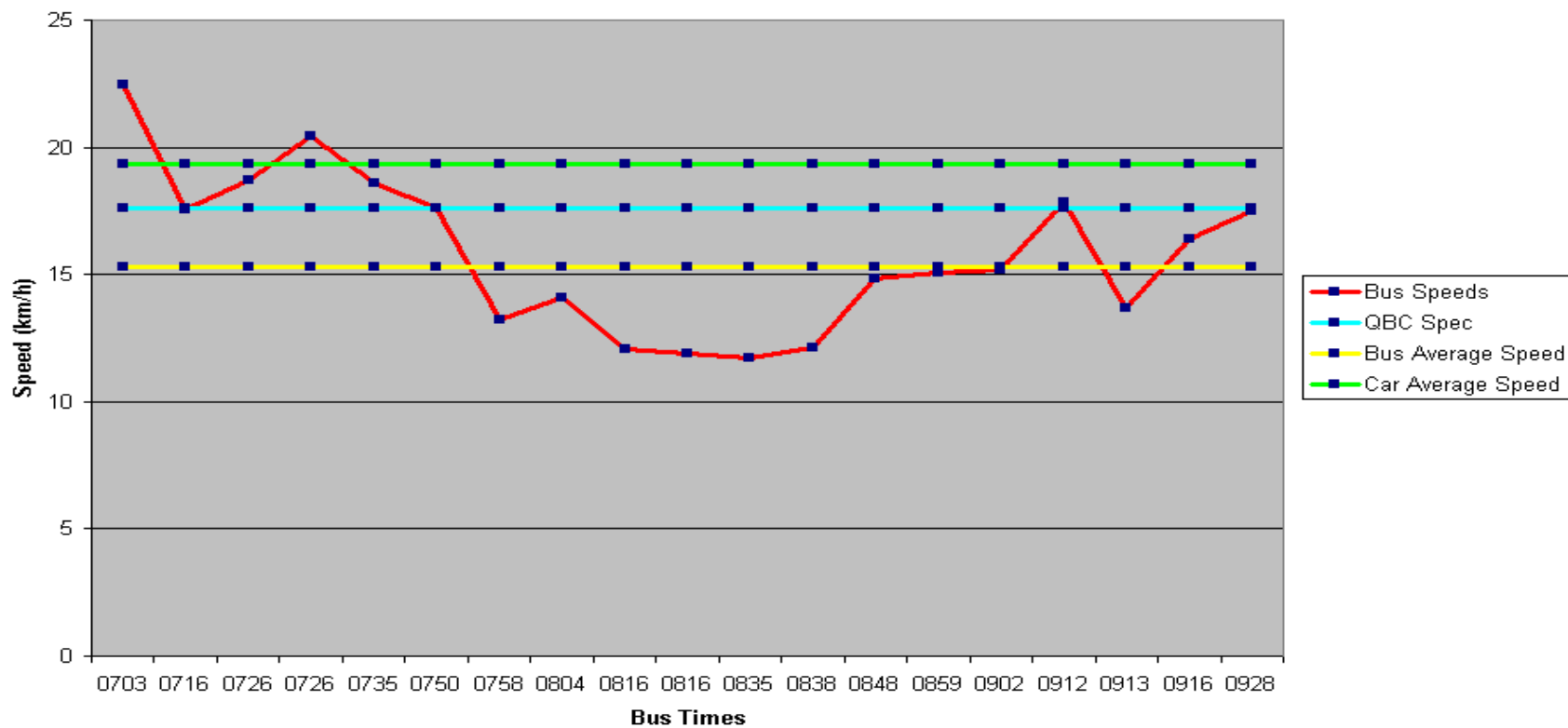
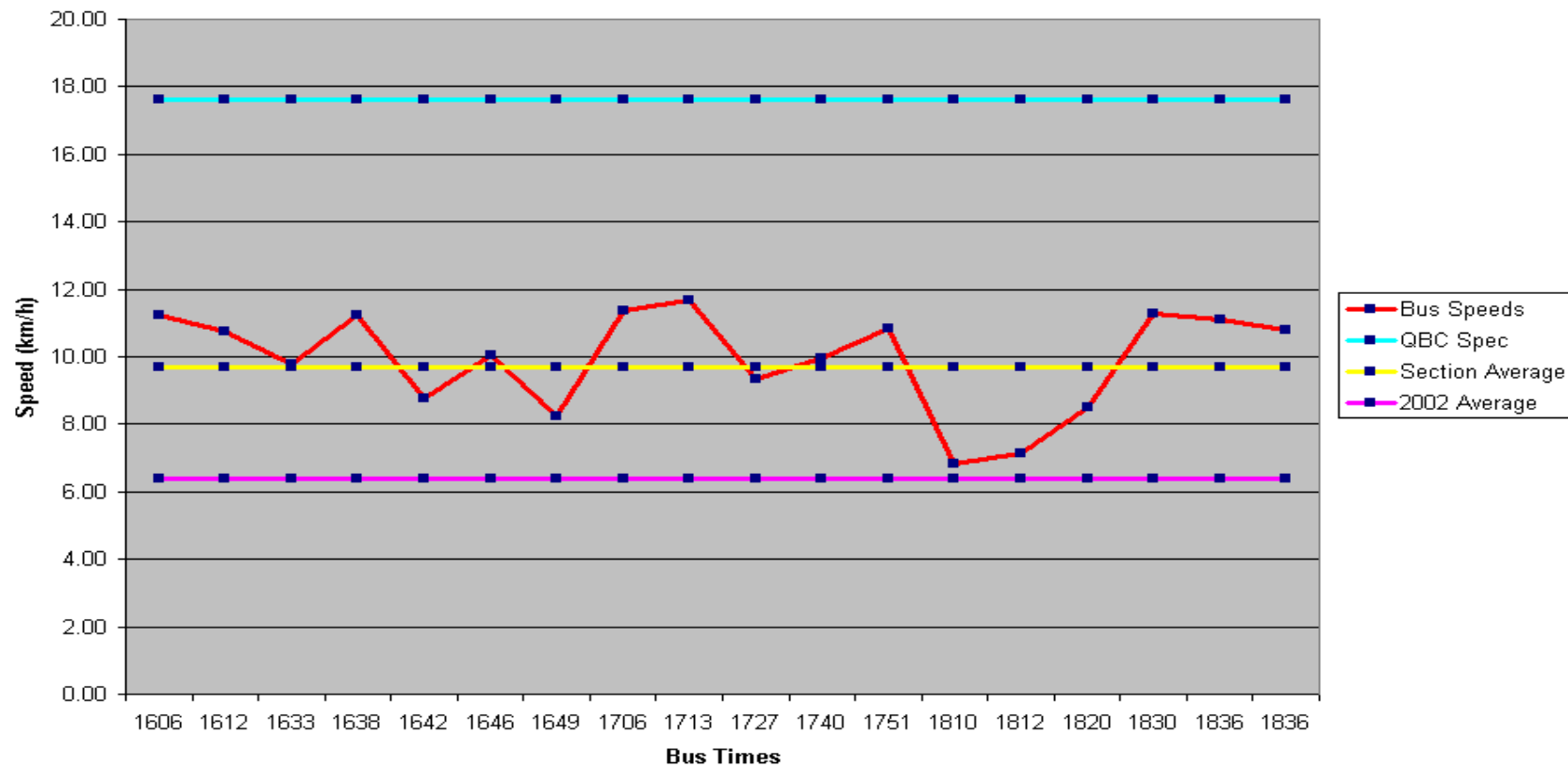


Table 11I North Clondalkin QBC

James's Street to Tyrconnell Road Bus Speeds PM Peak  
2277 Metres 0 Metres of Bus Lane



## **Rathfarnham QBC**

**Table 11m** shows the results for the Rathfarnham to Camden Street section of the QBC where comparison can be made between bus and car speeds.

The section measures 4877 metres of which 2319 metres has bus priority.

- Although bus average speed exceeds car average speed the results are very similar
- There is very little variation in bus operating speeds between 0732 and 0908
- Only one bus at 0709 operates at a speed in excess of the QBC specification

**Table 11n** shows the section from Terenure Road East to Mount Tallant Avenue a distance of 816 metres. In November 2002 this section had no bus priority but prior to the monitoring in November 2003 a section of outbound bus priority was replaced by inbound priority on this section.

- Bus average speed had risen from 5.03 kilometres per hour in 2002 to 14.54 kilometres per hour in 2003

**Table 11o** shows the outbound section from Whitton Road to Terenure Road North where the outbound bus lane had been replaced by an inbound bus lane as described above.

- Bus average speed had reduced from 16.92 kilometres per hour in 2002 to a virtual standstill at 1.78 kilometres per hour in 2003



Table 11m Rathfarnham QBC

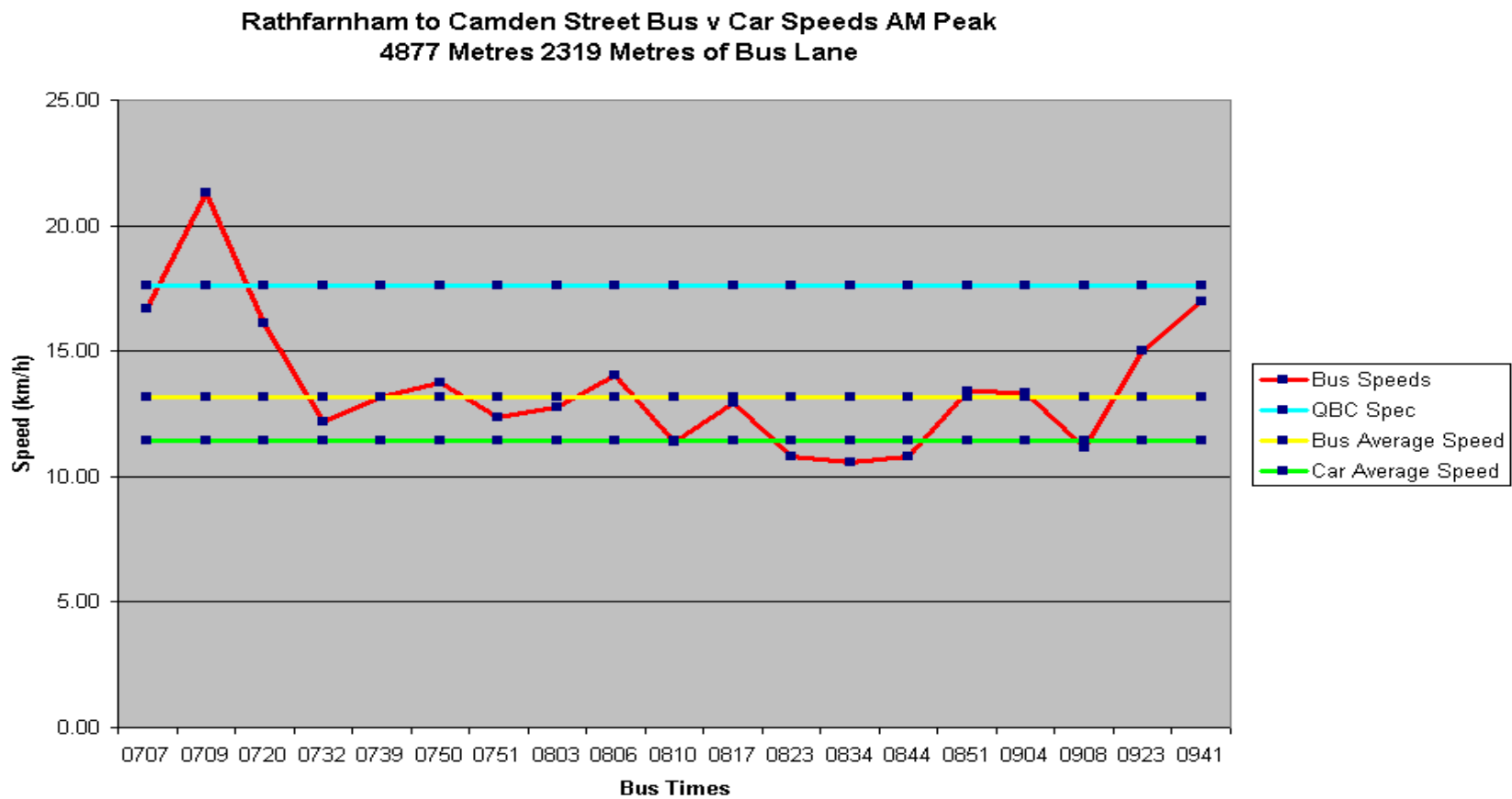


Table 11n Rathfarnham QBC

Terenure Road East to Mount Tallant Avenue Bus Speeds AM Peak  
816 Metres

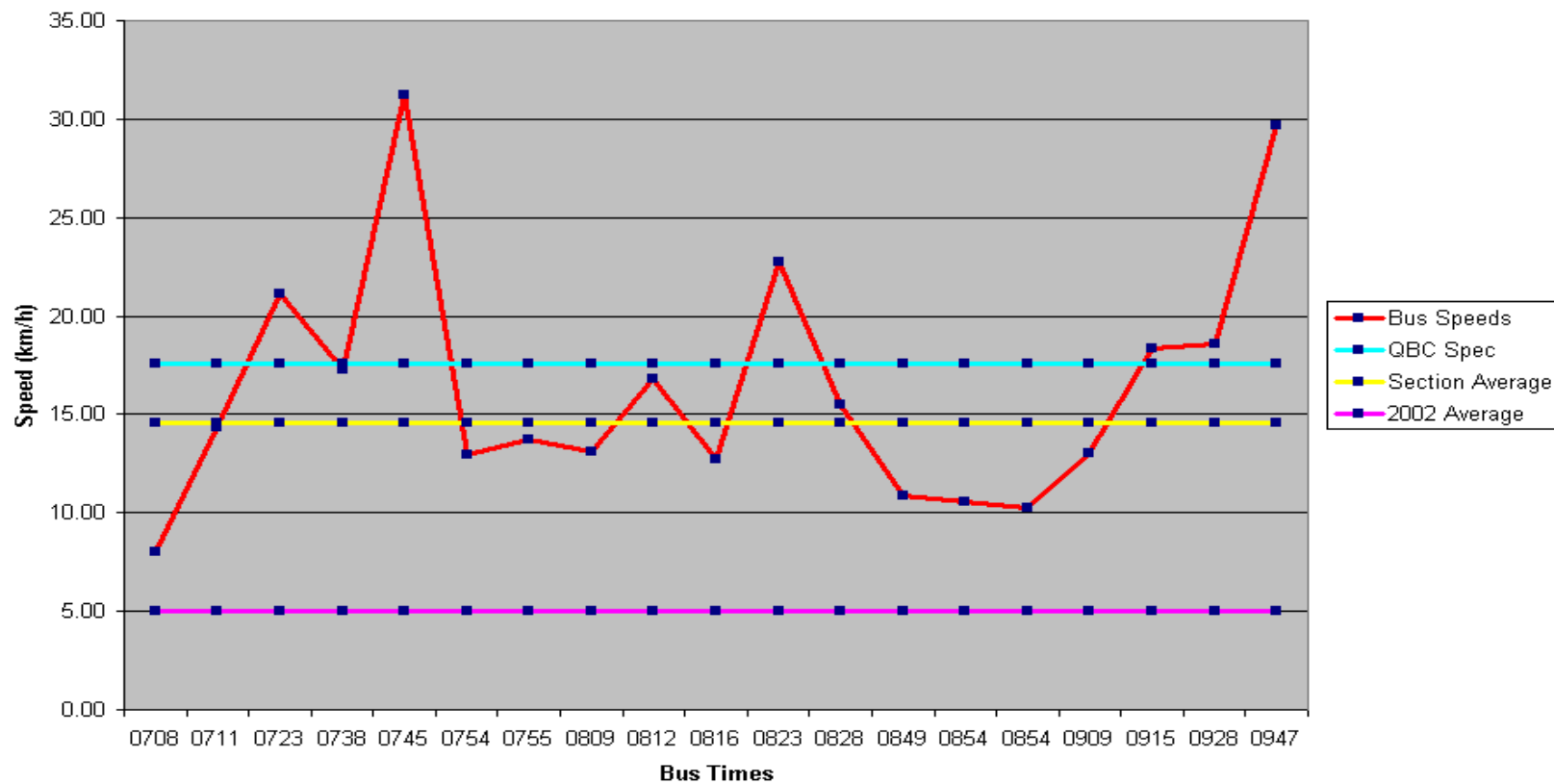
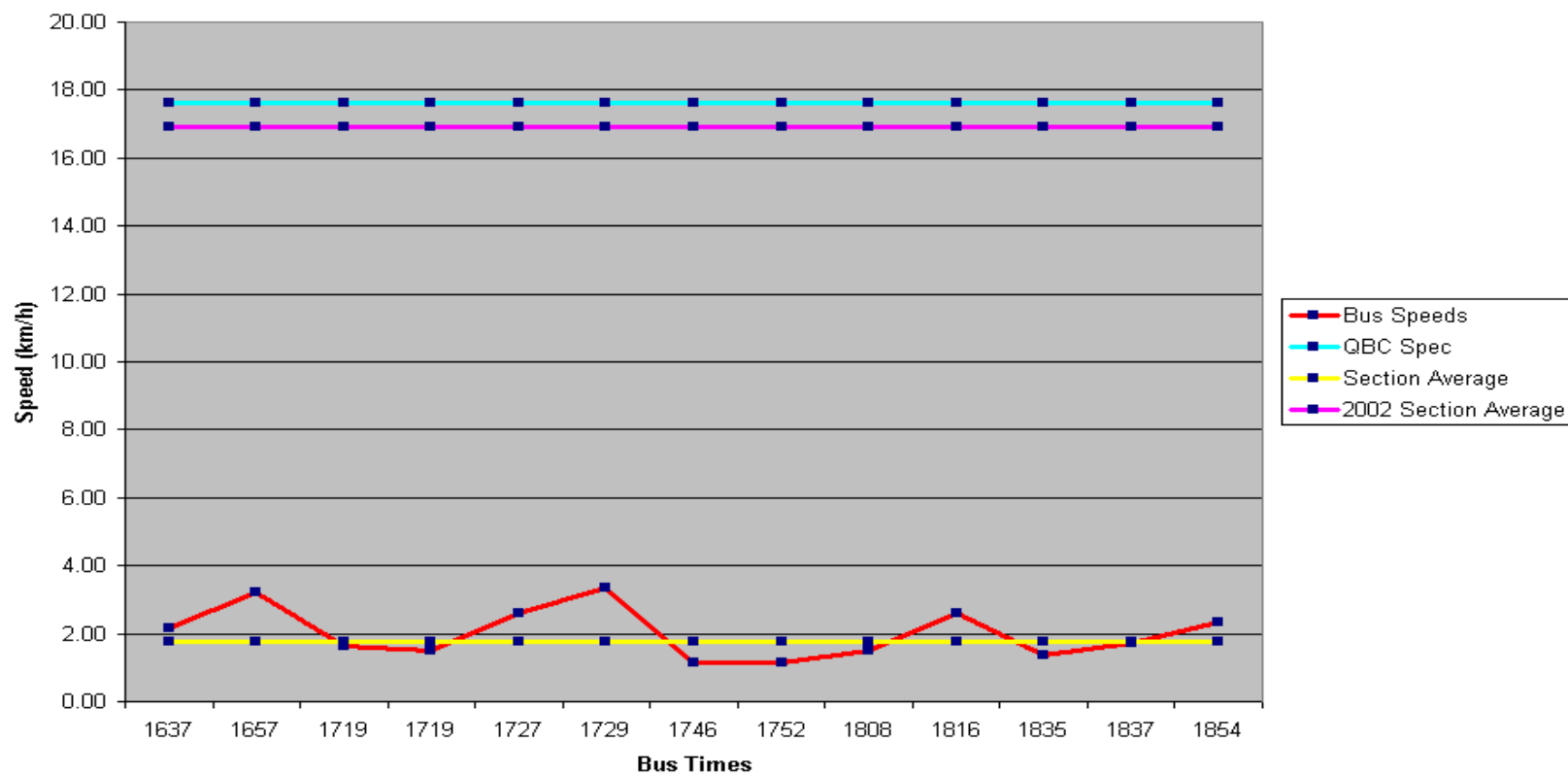


Table 11o Rathfarnham QBC

Whitton Road to Terenure Road North Bus Speeds PM Peak  
174 Metres



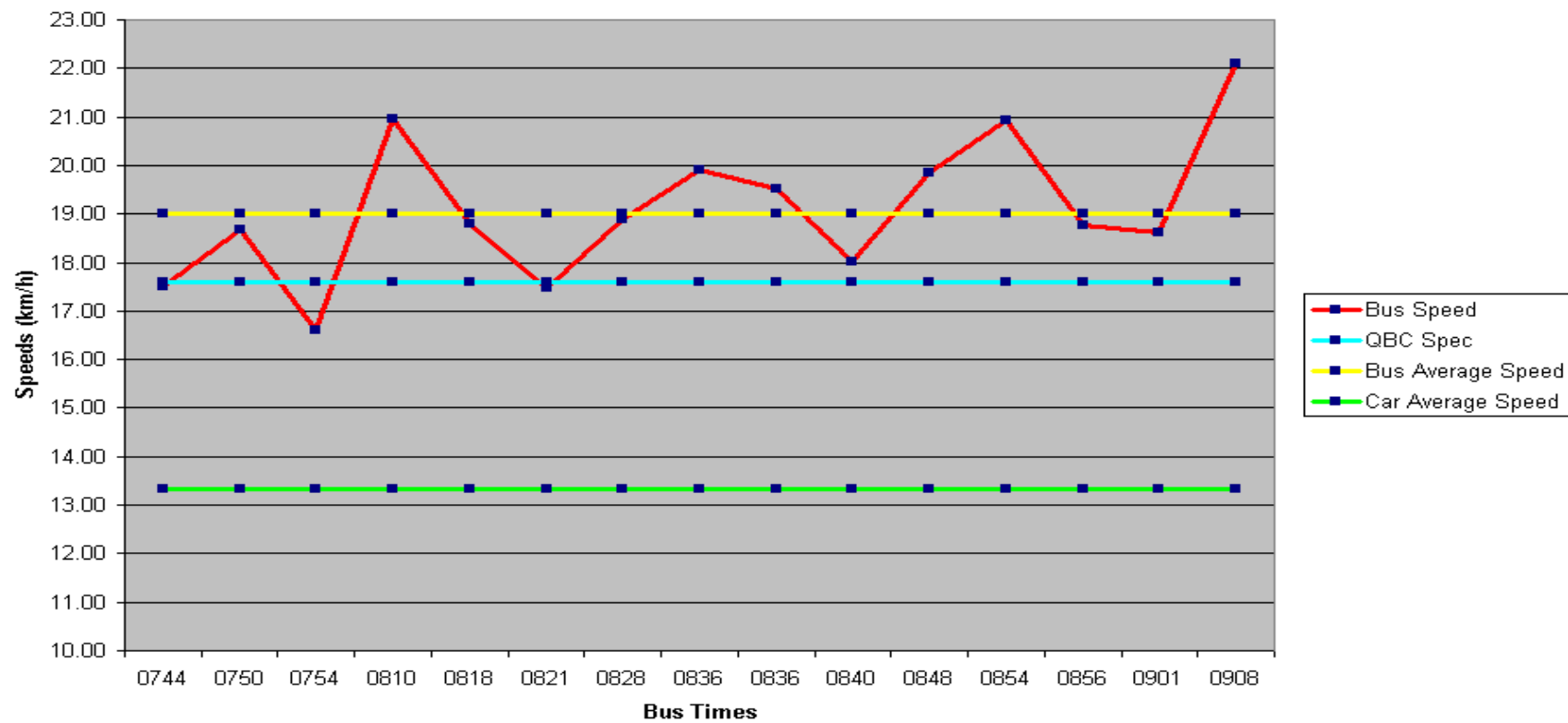
## Stillorgan QBC

**Table 11p** shows the results for the whole QBC from Foxrock Church to Leeson Street with comparisons between bus and car speeds.

- Bus average speed exceeds the QBC specification
- All buses except one at 0754 operate at speeds in excess of the QBC specification
- Bus average speed exceeds car average speed by almost 50%

Table 11p Stillorgan QBC

Stillorgan QBC Bus Speeds AM Peak  
 Foxrock Church to Leeson Street  
 9185 Metres 7745 Metres of Bus Lane



## Swords QBC

**Table 11r** shows the section from Cloghran Roundabout to Dorset Street Lower where comparisons can be made between bus and car average speeds. The section measures 9195 metres of which 6512 metres has bus priority.

- Bus and car average speed are virtually identical
- Bus average speed is well below the QBC specification
- All buses operate at speeds below 12 kilometres per hour between 0754 and 0851 with little variation

**Table 11s** shows the section from Omni Park Shopping Centre to Collins Avenue. This section measures 1423 metres of which 743 metres has bus priority. The section is affected by ongoing works on the construction of the Dublin Port Tunnel.

- Bus and car average speeds are virtually identical
- There is severe congestion between 0808 and 0921

**Table 11t** shows the section from Collins Avenue to Richmond Road. This section measures 1532 metres of which 1183 metres has bus priority.

- Bus average speed is just below the QBC specification
- Car average speed of 5.37 kilometres per hour demonstrates the effectiveness of the bus priority on this section

Table 11r Swords QBC

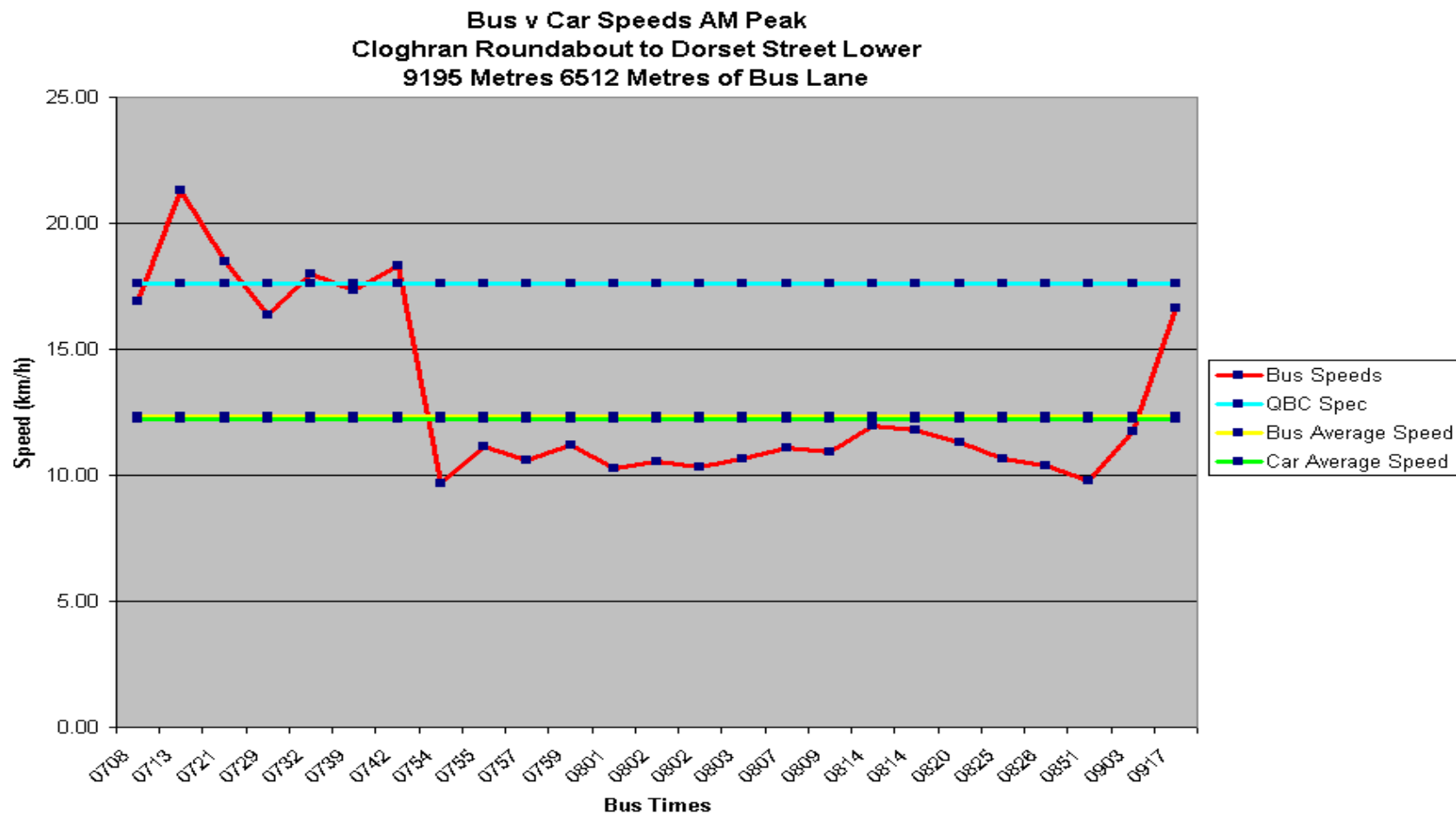


Table 11s Swords QBC

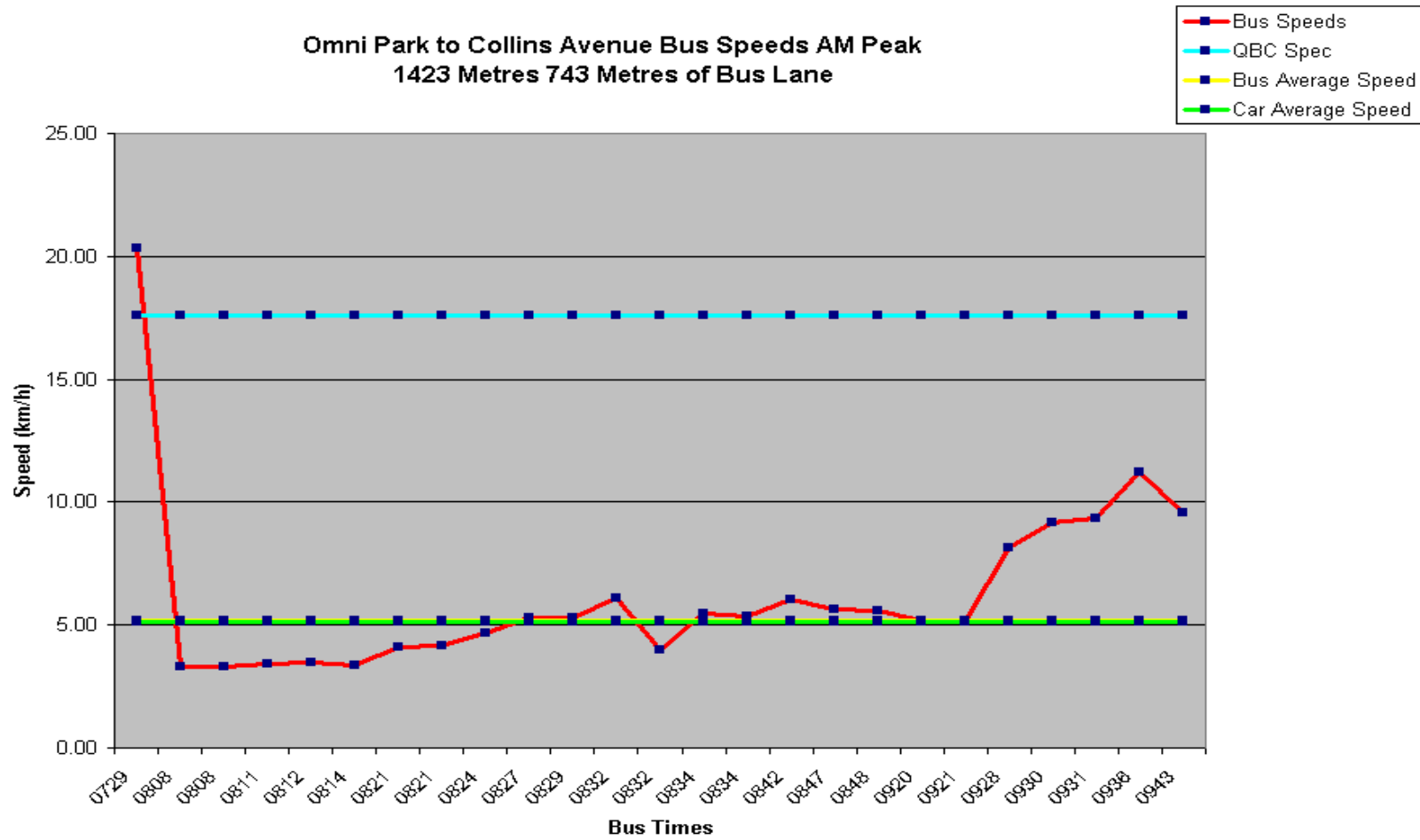
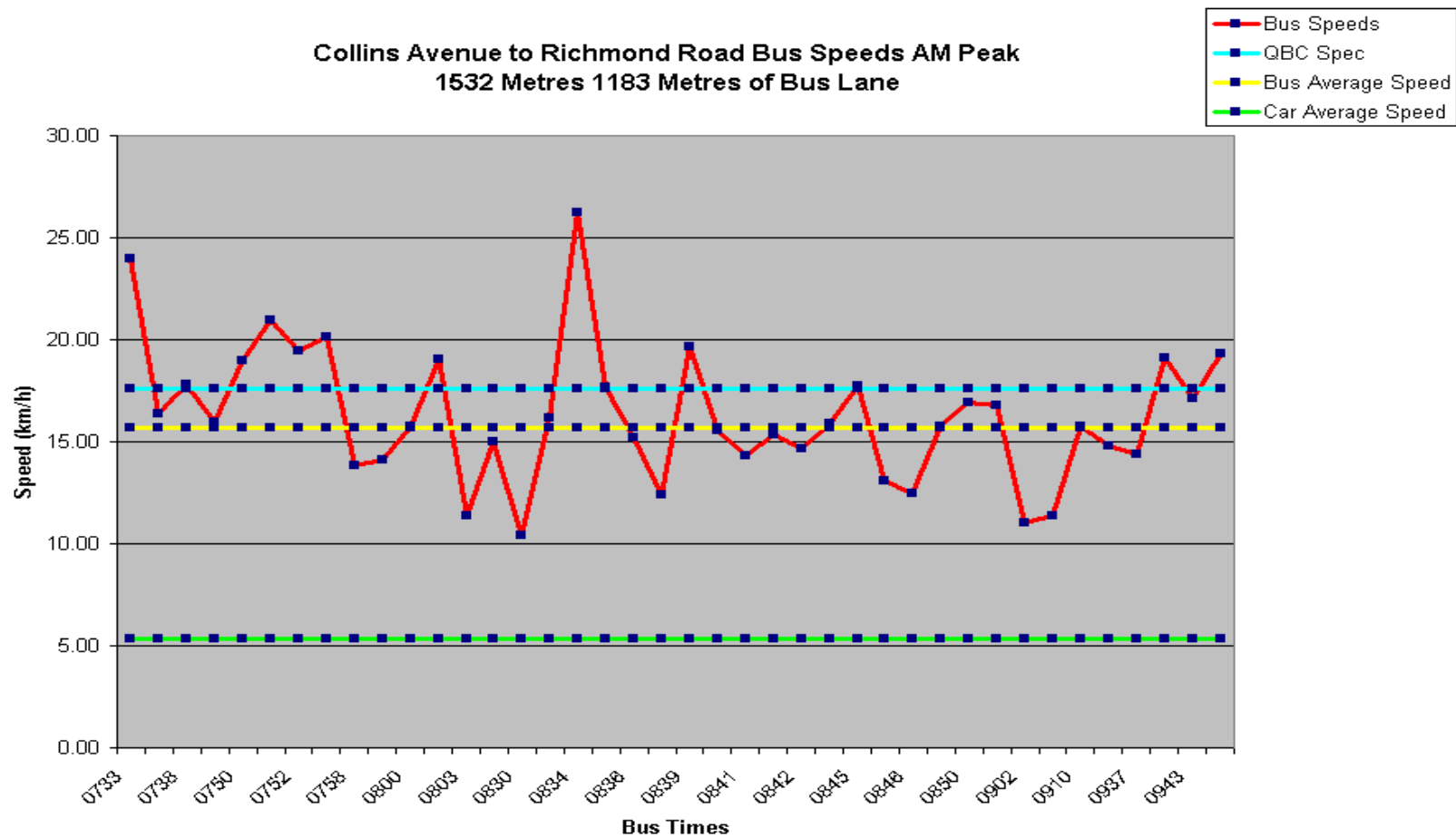




Table 11t Swords QBC



## Tallaght QBC

**Table 11u** shows the section from Terenure Road East to Rathgar Road which measures 1256 metres of which 1034 metres has bus priority.

- Bus average speed is just below the QBC specification
- Bus average speed comfortably exceeds car average speed
- Bus operating speeds are quite variable due to the bus priority not being continuous

**Table 11v** shows the previous section between Rathdown Park and Terenure Road East which measures 806 metres and has no bus priority.

- Bus and car average speeds are very similar
- Buses are very slow between 0809 and 0858

Table 11u Tallaght QBC

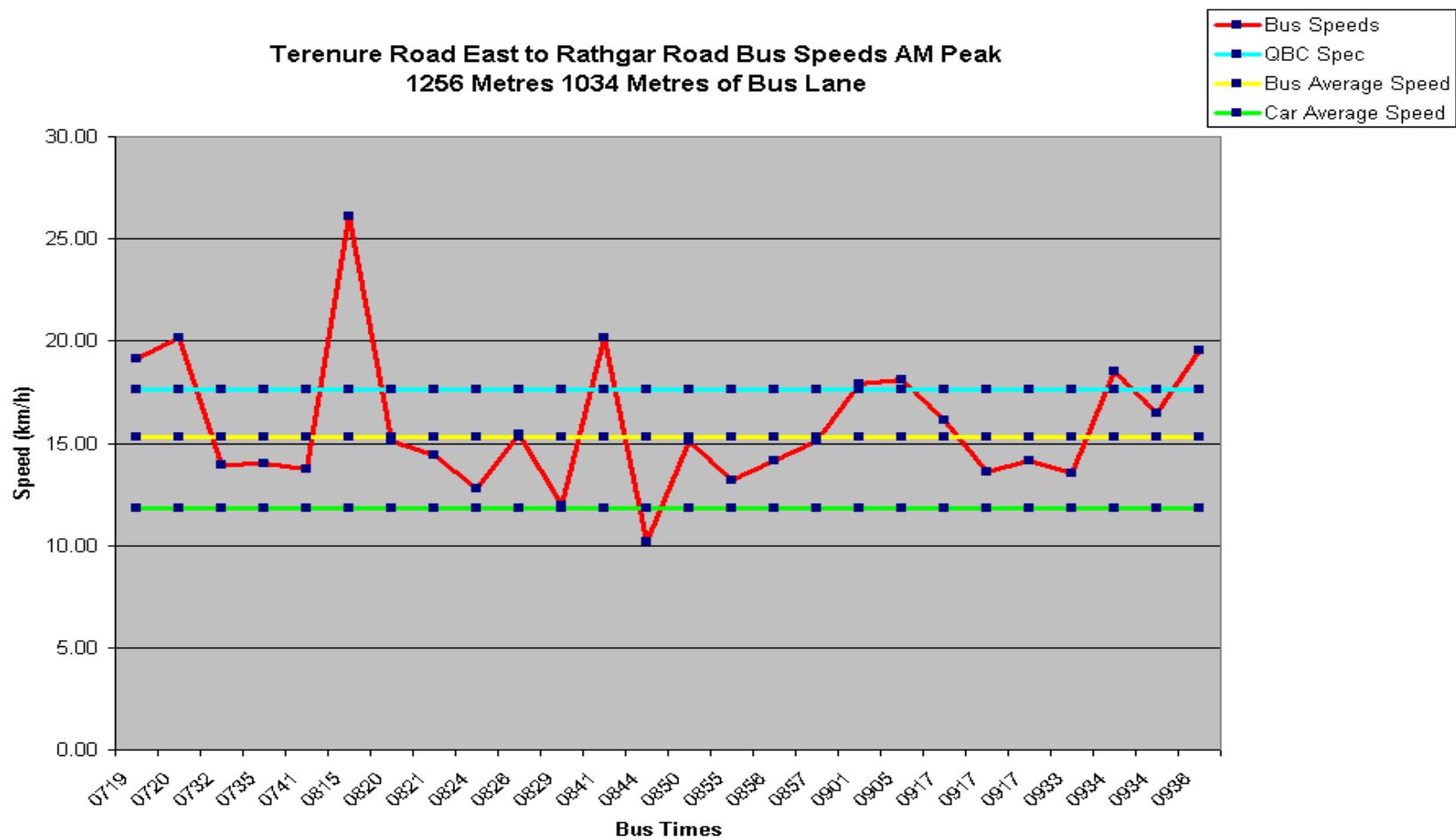
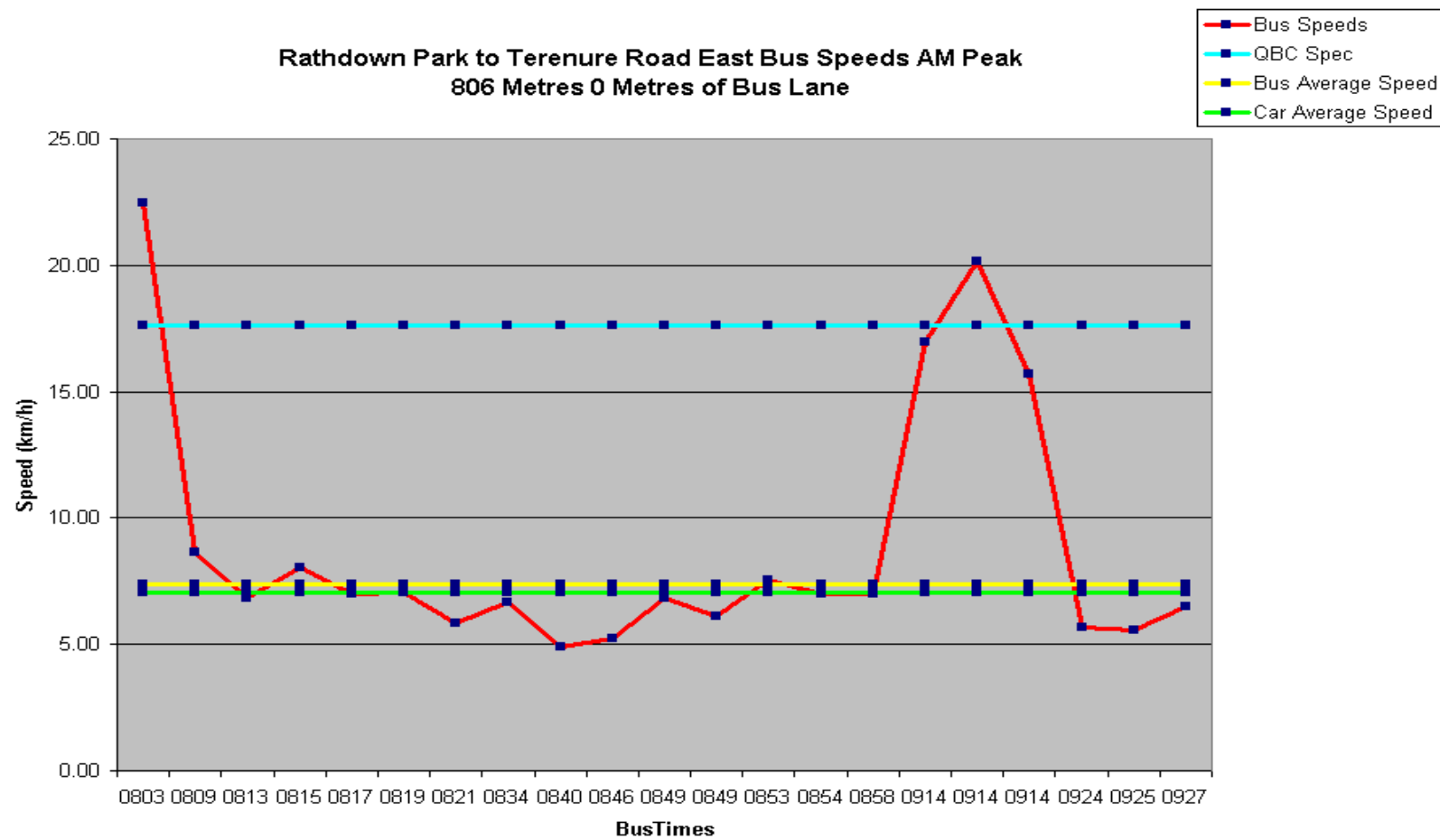


Table 11v Tallaght QBC



## 14 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 the 2 years that the DTO has been undertaking the annual exercise the following corridors have been monitored on a “pre QBC” basis.

### November 2002

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

### November 2003

Sth Clondalkin QBC Kingswood via Naas Road to Tyrconnell/Emmet Road

Kingswood via Naas Road and Long Mile Road to Drimnagh Road

Ninth Lock Road/Nangor Road via Nangor Road & Naas Road to Tyrconnell/Emmet Road

Ninth Lock/Nangor Road via Nangor Road & Long Mile Road to Drimnagh Road

In this report we will look at the results from South Clondalkin QBC.

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

## **South Clondalkin Pre QBC**

The data from the pre QBC monitoring process is available as follows:

- **Table 12a** Sectional bus and car journey times
- **Table 12b** Sectional bus speeds

Table 12a South Clondalkin Pre QBC Sectional Bus and Car Journey Times

South Clondalkin Pre QBC Roadside Survey Results - November 2003									
Sectional Results									
Section		AM Peak Inbound		PM Peak Outbound		Off Peak Inbound		Off Peak Outbound	
		Bus	Car	Bus	Car	Bus	Car	Bus	Car
Kingswood N7 Footbridge to Naas Road/Belgard Road	Average	4:19	6:27	N/A	2:30	N/A	3:11	N/A	2:11
	Range	4:19	1:38 to 14:27	N/A	1:29 to 3:46	N/A	1:55 to 9:40	N/A	1:20 to 2:54
Naas Road/Belgard Road to Naas Road/Monastery Road	Average	3:34	5:56	N/A	3:16	N/A	2:16	N/A	6:54
	Range	3:34	1:56 to 18:02	N/A	1:30 to 6:11	N/A	1:31 to 2:38	N/A	3:43 to 13:05
Naas Road/Monastery Road to Naas Road/Nangor Road	Average	9:20	3:46	11:12	11:44	4:04	3:34	N/A	5:50
	Range	3:13 to 19:28	2:00 to 5:55	2:41 to 20:26	2:51 to 27:48	3:32 to 4:30	2:09 to 5:28	N/A	2:10 to 6:53
Naas Road/Nangor Road to Naas Road/Davitt Road	Average	6:35	7:17	5:35	3:53	7:42	6:26	5:32	3:49
	Range	4:13 to 10:10	3:46 to 9:40	3:58 to 7:28	2:35 to 5:13	6:46 to 8:51	4:50 to 7:18	4:36 to 6:04	2:53 to 4:30
Naas Road/Nangor Road to Drimnagh Rd/Walkinstown Rd	Average	N/A	4:58	N/A	5:33	N/A	4:21	N/A	5:34
	Range	N/A	3:02 to 7:49	N/A	3:22 to 13:01	N/A	2:58 to 5:25	N/A	4:43 to 6:09
Naas Road/Davitt Road to Tyrconnell Rd/Emmet Rd	Average	3:14	2:20	2:57	1:45	5:28	4:02	2:32	2:01
	Range	2:25 to 4:54	1:07 to 4:28	2:07 to 4:05	0:54 to 2:46	4:36 to 6:44	1:19 to 6:05	1:50 to 3:03	1:18 to 2:59
Nangor Road/Ninth Lock Road to Nangor Road/Naas Road	Average	12:24	9:45	N/A	18:03	N/A	3:19	N/A	12:46
	Range	8:08 to 16:39	2:49 to 17:44	N/A	15:02 to 21:03	N/A	2:18 to 4:42	N/A	12:46
Nangor Road/Naas Road to Drimnagh Rd/Walkinstown Rd	Average	4:48	4:53	N/A	5:33	N/A	3:48	N/A	5:34
	Range	4:48	3:25 to 6:22	N/A	3:22 to 13:01	N/A	3:05 to 4:39	N/A	4:43 to 6:09
Nangor Road/Naas Road to Naas Road/Davitt Road	Average	N/A	5:18	N/A	3:53	N/A	4:29	N/A	3:49
	Range	N/A	2:58 to 8:45	N/A	2:35 to 5:13	N/A	4:00 to 4:58	N/A	2:53 to 4:30
Greenhills Road/Tymon Road to Greenhills Rd/Walkinstown Rd	Average	5:10	4:53	8:13	6:55	4:05	3:32	10:06	9:08
	Range	3:20 to 8:30	2:18 to 9:07	4:27 to 14:33	2:28 to 15:22	3:34 to 4:31	2:09 to 4:31	9:17 to 10:59	5:25 to 11:33
Greenhills Rd/Walkinstown Rd to Drimnagh Rd/Walkinstown Rd	Average	5:13	3:52	2:20	2:10	5:08	3:49	2:49	2:09
	Range	3:00 to 9:34	1:59 to 5:19	1:24 to 3:12	1:00 to 4:36	3:28 to 9:30	1:49 to 7:59	1:33 to 3:41	1:22 to 3:37

Table 12b South Clondalkin Pre QBC Sectional Bus Speeds

South Clondalkin pre QBC Roadside Survey Results - November 2003				
Sectional Results - Bus Journey Speeds				
Section	Distance Metres		AM Peak Inbound Km/h	Off Peak Inbound Km/h
Kingswood N7 Footbridge to Naas Road/Belgard Road	2293	Average Range	31.87 31.87	N/A N/A
Naas Road/Belgard Road to Naas Road/Monastery Road	1523	Average Range	25.62 25.62	N/A N/A
Naas Road/Monastery Road to Naas Road/Nangor Road	1360	Average Range	8.74 4.19 to 25.36	20.06 23.10 to 27.29
Naas Road/Nangor Road to Naas Road/Davitt Road	2079	Average Range	18.95 12.27 to 29.58	16.20 14.09 to 18.43
Naas Road/Nangor Road to Drimnagh Rd/Walkinstown Rd	1708	Average Range	N/A N/A	N/A N/A
Naas Road/Davitt Road to Tyrconnell Rd/Emmet Rd	804	Average Range	14.92 9.84 to 19.96	8.82 7.16 to 10.49
Nangor Road/Ninth Lock Road to Nangor Road/Naas Road	2932	Average Range	14.19 10.57 to 21.63	N/A N/A
Nangor Road/Naas Road to Drimnagh Rd/Walkinstown Rd	1641	Average Range	20.51 20.51	N/A N/A
Nangor Road/Naas Road to Naas Road/Davitt Road	2017	Average Range	N/A N/A	N/A N/A
Greenhills Road/Tymon Road to Greenhills Rd/Walkinstown Rd	2176	Average Range	25.27 15.36 to 39.17	31.98 28.90 to 36.60
Greenhills Rd/Walkinstown Rd to Drimnagh Rd/Walkinstown	1025	Average Range	11.79 6.43 to 20.50	11.98 6.47 to 17.74

Section	Distance Metres		PM Peak Outbound Km/h	Off Peak Outbound Km/h
Drimnagh Rd/Walkinstown Rd to Greenhills Rd/Walkinstown	842	Average Range	21.65 15.79 to 36.09	17.93 13.72 to 32.59
Drimnagh Rd/Walkinstown Rd to Long Mile Rd/Naas Rd Rd	1620	Average Range	N/A N/A	N/A N/A
Greenhills Rd/Walkinstown Rd to Greenhills Rd/Tymon Rd	2338	Average Range	17.07 9.64 to 31.52	13.89 12.77 to 15.11
Long Mile Rd/Naas Rd to Nangor Rd/Ninth Lock Rd	3105	Average Range	N/A N/A	N/A N/A
Long Mile Rd/Naas Rd to Naas Rd/Monastery Rd	1600	Average Range	N/A N/A	N/A N/A
Naas Rd/Monastery Rd to Naas Rd/Fonthill Rd	1282	Average Range	N/A N/A	N/A N/A
Naas Rd/Fonthill Rd to Kingswood N7 Footbridge	2486	Average Range	N/A N/A	N/A N/A
Tyrconnell Rd/Emmet Rd to Naas Rd/Davitt Rd	655	Average Range	13.32 9.62 to 18.56	15.51 12.88 to 21.44
Naas Rd/Davitt Rd to Naas Rd/Nangor Rd	2075	Average Range	22.30 16.67 to 31.38	22.50 20.52 to 27.06
Naas Rd/Nangor Rd to Naas Rd/Monastery Rd	1555	Average Range	8.33 4.49 to 34.77	N/A N/A
Naas Rd/Nangor Rd to Nangor Rd/Ninth Lock Rd	2983	Average Range	N/A N/A	N/A N/A

Code: N/A Not Applicable or Not Available



### Appendix 1 November 2003 Survey Points

Blanchardstown QBC Survey Points November 2003						
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 Old Cabra Rd just before junction with North Circular Rd	313968.28	235475.54	Inbound	All	New location for 2003 (QBN)
11	South on Manor Street adjacent to Kirwan Street	314326.25	234937.09	Inbound	All	
12	South on Blackhall Place before jct with Ellis Quay at end of bus lane	314440.44	234325.36	Inbound	All	New location for 2003 (QBN)
13	East on Ormonde Quay Upper adjacent to Capel Street	315405.26	234244.03	Inbound	All	
14	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
15	Service 39 terminus at Hawkins Street	316130.41	234287.64	Outbound	All	Count Buses only
16	West on Merchants Quay adjacent to Winetavern Street	315089.7	234113.06	Outbound	All	
17	On Blackhall Place Bridge	314436.38	234283.19	Outbound	All	Amended location for 2003
18	North on Manor Street adjacent to Kirwan Street	314298	234936.91	Outbound	All	
19	North on Old Cabra Road just after junction with North Circular Road	313960.26	235469.13	Outbound	All	New location for 2003 (QBN)
20	North on Navan Road at junction with Ratoath Road	313285.35	235935.15	Outbound	All	
21	North on Navan Road after junction with Castleknock Road	311004.9	237072.13	Outbound	All	
22	North on Navan Road at end of bus lane before junction with New River Rd	309397.83	237902.15	Outbound	All	
23	North on B'town Bypass adjacent to Main Street before bus gate	308557.83	238463.94	Outbound	All	
24	West on Clonsilla Road adjacent to Coolmine Road	306982.2	238187.85	Outbound	All	
25	West on Blakestown Way after junction with B'town Rd South	306574.58	239354.68	Outbound	All	
26	North on B'town Bypass at rear of shopping centre	307295.39	239512.94	Outbound	PM Peak	
27	South on B'town Road South north arm at junction with Blakestown Way	306642.63	239352.31	Outbound	PM Peak	
28	At Service 39 terminus adjacent to St Josephs Hospital	304446.25	238786.43	Outbound	All	

## Appendix 1 November 2003 Survey Points

Finglas QBC Survey Points November 2003						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	Mallowes Road Bridge over N2 prior to junction with Main Street	313055.4	239081.96	Inbound	All	Amended for 2003
2	Finglas Road by Main Street	313337.29	238735.17	Inbound	All	Count Buses only
3	Prospect Road at junction with Whitworth Road	315105.21	236310.6	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	
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	Count Buses only
8	Prospect Road at junction with Whitworth Road	315087.5	236318	Outbound	All	
9	Finglas Road by Finglas Place	313447.4	238561.21	Outbound	All	
10	Mallowes Road on bridge over N2 after junction with Main Street	313060.44	239064.8	Outbound	All	

## Appendix 1 November 2003 Survey Points

Lucan QBC Survey Points November 2003						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	South on Newcastle Rd at 25a departure point opposite Superquinn	303213.09	234164.63	Inbound	All	New location for 2003 (QBN) Count buses only
2	Penny Hill pub north of junction of Castle Rd & Ballyowen Rd	304953.86	234169.25	Inbound	All	New location for 2003 (QBN)
3	N4 opposite Foxhunter pub	305315.33	235462.13	Inbound	All	
4	Palmerston prior to M50 at Liffey Valley Bus Stop	307237.09	235193.8	Inbound	All	
5	Palmerston opposite The Oval	308751.41	234967.54	Inbound	All	
6	Chapelizod Sliproad	309008.32	234911.88	Inbound	All	
7	Con Colbert Road just east of junction with link road to Inchicore Road	312172.2	233836.39	Inbound	All	
8	Heuston Station Taxi Rank on St Johns Road	313666.43	234201.03	Inbound	All	New location for 2003 (DTO)
9	Conyngham Road east of junction with South Circular Road	312818.17	234438.91	Inbound	All	
10	Parkgate Street at segregated bus stop	313770.2	234419.01	Inbound	All	
11	Ellis Quay just east of junction with Ellis Street/Rory O' More Bridge	314352.08	234325.5	Inbound	All	
12	Arran Quay just before junction with Church Street/Fr. Mathew Bridge	314835.45	234218.97	Inbound	All	
13	Bachelors Walk just before O'Connell Street Bridge	315867.1	234384.37	Inbound	All	Amended for 2003

Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
14	Wellington Quay Service 25a departure point	315727.73	234241.88	Outbound	All	
15	Merchants Quay just before junction with Bridge Street	314924.02	234130.56	Outbound	All	
16	Conyngham Road at Bridgewater Quay prior to South Circular Road	312817.38	234427.72	Outbound	All	
17	Opposite Taxi Rank Heuston Station St Johns Road	313698.78	234185.45	Outbound	All	New location for 2003 (DTO)
18	Con Colbert Road just east of junction with link road to Inchicore Road	312175.29	233806.16	Outbound	All	
19	Chapelizod Sliproad	309497.51	234613.03	Outbound	All	
20	Palmerston just past The Oval	308691.89	234967.31	Outbound	All	
21	Palmerston after M50 at Liffey Valley Bus Stop	307221.35	235153.01	Outbound	All	
22	N4 at Foxhunter Pub	305317.04	235436.26	Outbound	All	
23	Penny Hill pub north of junction of Castle Rd & Ballyowen Rd	304972.64	234164.24	Outbound	All	New location for 2003 (QBN)
24	North on Newcastle Road at 25A terminus by Superquinn	303200.39	234144.51	Outbound	All	New location for 2003 (QBN) Count buses only

## Appendix 1 November 2003 Survey Points

Malahide QBC Survey Points November 2003						
Poin No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	Clare Hall Terminus	321603.58	240635.74	Inbound	All	
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	Malahide Rd at bus stop at Fairview prior to junction with Clontarf Road	317922.33	236366.03	Inbound	All	New location for 2003 (DTO)
9	Amiens Street at end of bus lane near Connolly Station	316672.54	235028.29	Inbound	All	
10	Talbot Street Bus Terminus set down point	316350.97	234801.51	Inbound	All	Count Buses only

Poin No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
11	Talbot Street Bus Terminus Departure Point	316317.65	234789.33	Outbound	All	Count Buses only
12	Amiens Street/North Strand Road start of bus lane	316665.99	235050.04	Outbound	All	
13	Junction of Fairview Strand/Malahide Road at end of bus lane	317749.41	236319.94	Outbound	All	
14	Malahide Road start of bus lane just north of Griffith Avenue	318111.79	236826.26	Outbound	All	
15	Malahide Road just south of junction with Collins Avenue	318561.89	237584.12	Outbound	All	
16	Malahide Road just north of junction with Kilmore Road start of bus lane	319244.89	238244.02	Outbound	All	
17	Malahide Road south of junction with Greencastle Road at end of bus lane	320081.14	239368.79	Outbound	All	
18	Malahide Rd north of r'bout P'swood Rd/Blunden Drive start of bus lane	320669.83	240138.67	Outbound	All	
19	Terminus in Clare Hall eastbound stop	321622.93	240644.4	Outbound	All	

## Appendix 1 November 2003 Survey Points

North Clondalkin QBC Survey Points November 2003						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	South end of Fonthill Rd end of bus lane before Link Rd/Neilstown Rd jct	306099.47	233501.51	Inbound	All	New location for 2003 (DTO)
2	Ballyfermot Rd after junction with Coldcut Road at start of bus lane	307980.04	234007.78	Inbound	All	New location for 2003 (DTO)
3	Ballyfermot Road before junction with Le Fanu Road at end of bus lane	309488.62	233709.11	Inbound	All	New location for 2003 (DTO)
4	Ballyfermot Rd after junction with Kylemore Road at schools bus stop	310102.52	233713.09	Inbound	All	New location for 2003 (DTO)
5	Emmet Road east of junction with Tyrconnell Road/Grattan Crescent	311913.14	233430.89	Inbound	All	New location for 2003 (DTO)
6	East on Emmet Road just west of South Circular Road/Inchicore Road	312736.7	233581.45	Inbound	All	
7	East on Old Kilmainham/Mount Brown west of Basin Street	313836.85	233863.81	Inbound	All	
8	East on Cornmarket east of St Augustine Street	314861.52	233914.09	Inbound	All	
9	At 78A terminating stop on Westmoreland Street	315977.89	234302.01	Inbound	All	

Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
10	78A departure stop at Aston Quay	315906.63	234315.33	Outbound	All	
11	Bridge Street just after junction with Merchants Quay	314875.07	234108.89	Outbound	All	
12	West on Cornmarket east of Francis Street	314865.29	233904.67	Outbound	All	
13	West on James Street east of Echlin Street	314100.35	233919.63	Outbound	All	
14	Emmet Road just west of junction with South Circular Road/Suir Road	312735.22	233569.42	Outbound	All	
15	West on Emmet Rd east of junction with Tyrconnell Rd/Grattan Crescent	311911.25	233421.29	Outbound	All	New location for 2003 (DTO)
16	Ballyfermot Rd at end of bus lane prior to junction with Kylemore Road	310069.45	233697.13	Outbound	All	
17	Ballyfermot Rd after junction with Le Fanu Road	309487.77	233698.91	Outbound	All	
18	Ballyfermot Road at end of bus lane prior to junction with Coldcut Road	307979.75	233984.64	Outbound	All	
19	South end of Fonthill Rd start of bus lane after Link Rd/Neilstown Rd jct	306086.69	233528.68	Outbound	All	

## Appendix 1 November 2003 Survey Points

Rathfarnham QBC Survey Points November 2003						
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	
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	230891.3	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	Count buses only

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	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 2003 Survey Points

Stillorgan QBC Survey Points November 2003						
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	Abbey Road at bus stop prior to junction with Kill Lane	322905.41	227193.16	Inbound	All	New location for 2003 (DTO)
4	North on Stillorgan Road just after junction with Kill Lane	321816.87	226358.38	Inbound	All	
5	Stillorgan Road just south of junction with Mount Merrion Avenue	319781.15	228820.22	Inbound	All	
6	Stillorgan Road above junction with Ailesbury Road/Beaver Row	317833.9	231328.53	Inbound	All	
7	Morehampton Rd end of bus lane before junction with Wellington Place	317040.21	232195.75	Inbound	All	New location for 2003 (DTO)
8	Leeson Street before junction with St Stephen's Green	316159.7	233132.93	Inbound	All	
9	Westmoreland Street prior to O'Connell Street Bridge	315977.05	234301.33	Inbound	All	Count buses only

Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
10	D'Olier Street prior to junction with Townsend Street	316090.58	234271.03	Outbound	All	Count buses only
11	Leeson Street after junction with St Stephen's Green	316167.69	233147.25	Outbound	All	
12	Morehampton Rd at start of bus lane after junction with Wellington Place	317032.63	232217.22	Outbound	All	New location for 2003 (DTO)
13	Stillorgan Road above junction with Ailesbury Road/Beaver Row	317849.22	231346.84	Outbound	All	
14	Stillorgan Road just south of junction with Mount Merrion Avenue	319811.78	228822.55	Outbound	All	
15	Stillorgan Road just prior to junction with Kill Lane	321829.69	226389.65	Outbound	All	
16	Abbey Road after junction with Kill Lane	322897.03	227191.76	Outbound	All	New location for 2003 (DTO)
17	Oliver Plunkett Rd prior to junction with Mounttown Lower	323633.43	227504.91	Outbound	All	
18	Dun Laoghaire DART Station set down bus stop	324392.57	228780.96	Outbound	All	Count buses only

## Appendix 1 November 2003 Survey Points

Swords QBC Survey Points November 2003						
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	
2	South on Main Street north of junction with Malahide Road	318204.06	246628.93	Inbound	All	
3	Swords Road prior to junction with Nevinstown Lane at end of bus lane	317775.86	245442.23	Inbound	All	New location for 2003 (DTO)
4	Dublin Road north of junction with Naul Road at end of bus lane	317798.56	244142.64	Inbound	All	
5	Swords Road South of south turn into Airport	317680.29	242832.24	Inbound	All	
6	Swords Road south of junction with Lorcan Road opposite Omni Park	316734.77	239421.89	Inbound	All	
7	Swords Road south of junction with Collins Avenue at start of bus lane	316830.3	238209.29	Inbound	All	
8	Swords Road north of junction with Richmond Road at end of bus lane	316218.8	236814.08	Inbound	All	
9	Dorset Street Lower before jct with North Circular Rd at end of bus lane	315828.84	235791.17	Inbound	All	New location for 2003 (DTO)
10	O'Connell Street just after junction with Earl Street North	315929.21	234642.06	Inbound	All	Count Buses only

Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
11	Eden Quay 41 departure point	316227.88	234516.09	Outbound	All	
12	Dorset St Lower after junction with North Circular Rd at start of bus lane	315805.81	235788.35	Outbound	All	New location for 2003 (DTO)
13	North on Drumcondra Rd Lower before junction with Botanic Avenue	316167.46	236612.63	Outbound	All	
14	North on Swords Road prior to junction with Collins Avenue	316814.7	238213.51	Outbound	All	
15	North on Swords Road before junction with Lorcan Road at Omni Park	316719.5	239422.54	Outbound	All	
16	North on Swords Road south of turn into Airport (not roundabout)	317661.12	242839.39	Outbound	All	
17	North on Dublin Road north of junction with Naul Road	317781.34	244148.17	Outbound	All	
18	Swords Rd north of junction with Nevinstown Lane at start of bus lane	317760.65	245480.26	Outbound	All	New location for 2003 (DTO)
19	North on Main Street just after junction with Malahide Road	318193.98	246631.53	Outbound	All	
20	Main Street opposite County Council offices	318273.92	246901.21	Outbound	All	



## Appendix 1 November 2003 Survey Points

Tallaght QBC Survey Points November 2003						
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	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	228689.8	Inbound	All	
6	North on Templeogue Road north of junction with Fortfield Road	313774.38	229504.8	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	314187.7	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	226543.4	Outbound	All	

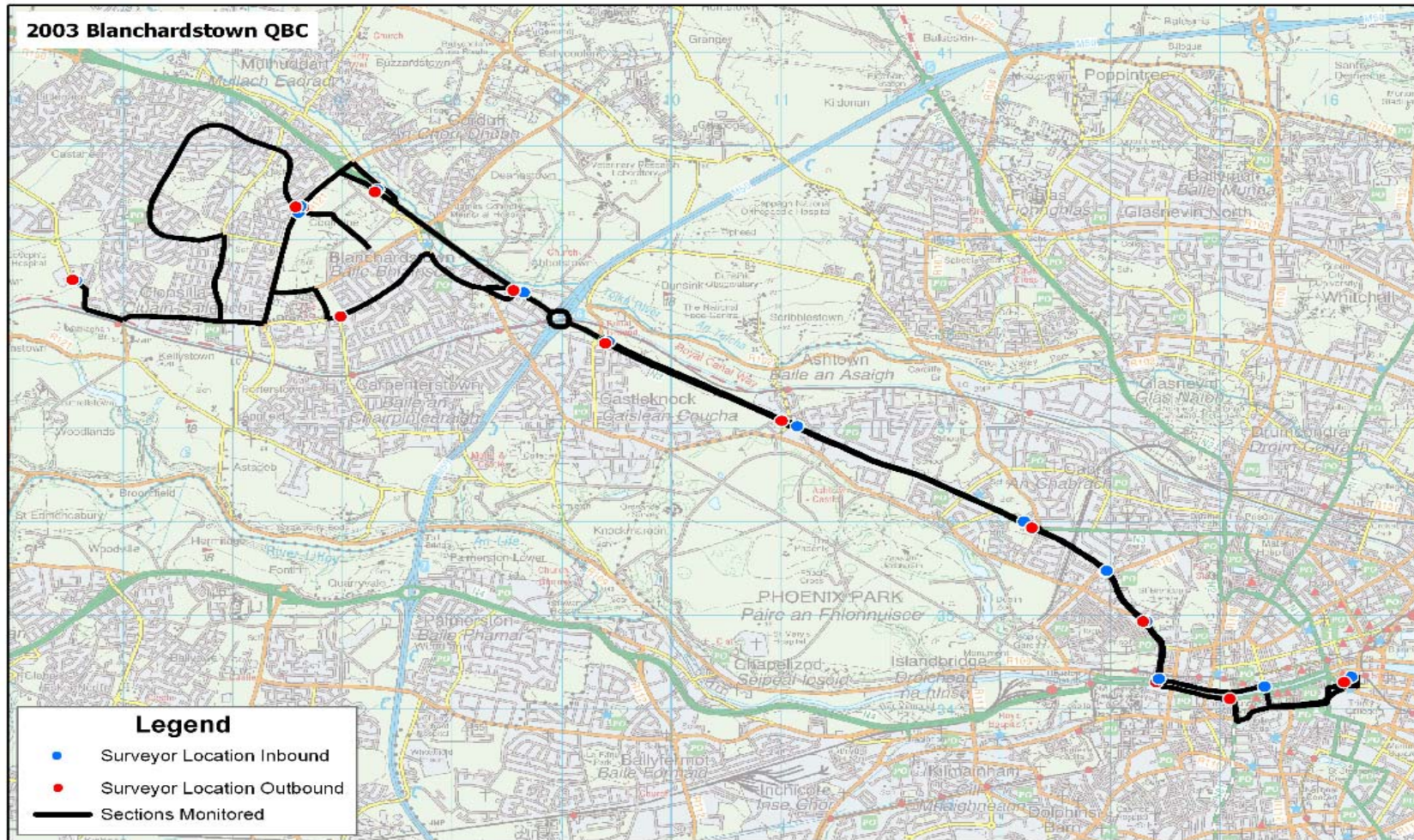
## Appendix 1 November 2003 Survey Points

South Clondalkin Pre QBC Survey Points November 2003						
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
1	Kingswood N7 Footbridge	305336.89	229052.82	Inbound	All	New location for 2003 (QBN)
2	Naas Road prior to junction with Fonthill Road South/Belgard Road	307191.02	230344.4	Inbound	All	New location for 2003 (QBN)
3	Naas Road just after junction with Monastery Road	308592.49	230936.33	Inbound	All	New location for 2003 (QBN)
4	Nangor Road after junction with Ninth Lock Road	306987.87	232041.11	Inbound	All	New location for 2003 (QBN)
5	Nangor Road prior to junction with Naas Road	309794.44	231645.5	Inbound	All	New location for 2003 (QBN)
6	Naas Road prior to junction with Nangor Road	309739.61	231586.72	Inbound	All	New location for 2003 (QBN)
7	Naas Road prior to junction with Davitt Road	311367.96	232762.23	Inbound	All	New location for 2003 (QBN)
8	Tyrconnell Road prior to junction with Emmet Road	311856.31	233396.61	Inbound	All	New location for 2003 (QBN)
9	Greenhills Road just after junction with Tymon Road	309915.1	229166.89	Inbound	All	New location for 2003 (QBN)
10	Greenhills Road just prior to Walkinstown Roundabout	311103.06	230864.63	Inbound	All	New location for 2003 (QBN)
11	Drimnagh Road just after junction with Walkinstown Road	311486.61	231721.58	Inbound	All	New location for 2003 (QBN)

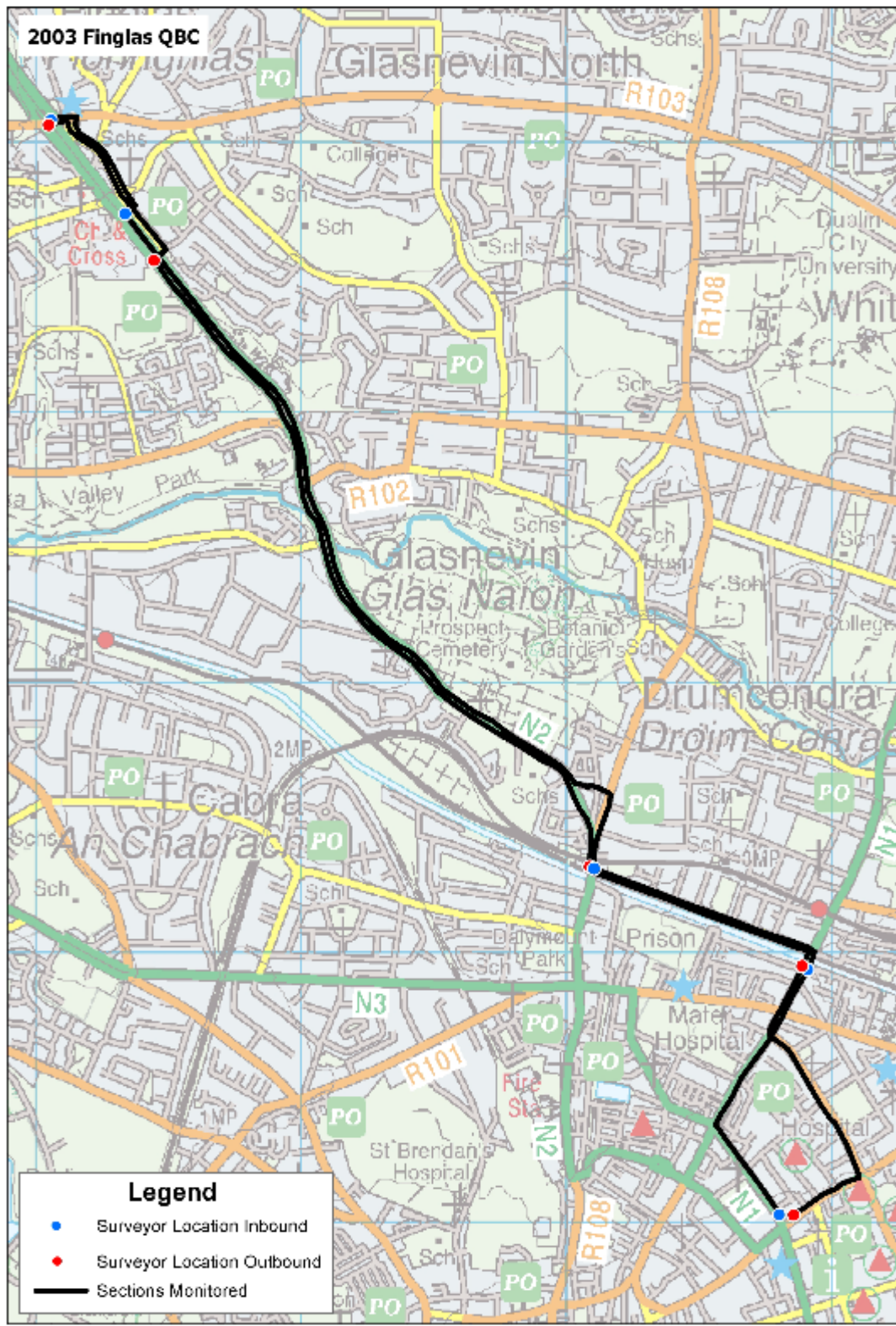
Point No.	Description	X Coordinate	Y Coordinate	Direction	Survey Periods	Notes
12	Drimnagh Road just prior to junction with Walkinstown Road	311574.57	231711.81	Outbound	All	New location for 2003 (QBN)
13	Walkinstown Road just prior to Walkinstown Roundabout	311172.03	231002.57	Outbound	All	New location for 2003 (QBN)
14	Greenhills Road just prior to junction with Tymon Road	309926.02	229162.87	Outbound	All	New location for 2003 (QBN)
15	Tyrconnell Road just after junction with Emmet Road	311867.2	233388.56	Outbound	All	New location for 2003 (QBN)
16	Tyrconnell Road just prior to junction with Davitt Road	311447.06	232890.77	Outbound	All	New location for 2003 (QBN)
17	Naas Road just prior to junction with Nangor Road	309893.91	231640.98	Outbound	All	New location for 2003 (QBN)
18	Long Mile Road just prior to junction with Naas Road	309960.04	231583.89	Outbound	All	New location for 2003 (QBN)
19	Nangor Road just prior to junction with Ninth Lock Road	306994.06	232029.26	Outbound	All	New location for 2003 (QBN)
20	Naas Road opposite junction with Monastery Road	308573.42	230891.5	Outbound	All	New location for 2003 (QBN)
21	Naas Road just prior to junction with Fonthill Rd South/Belgard Rd	307402.75	230369.4	Outbound	All	New location for 2003 (QBN)
22	Kingswood N7 Footbridge	305370.4	229023.55	Outbound	All	New location for 2003 (QBN)

## Appendix 2 Maps of Survey Points

### Blanchardstown QBC

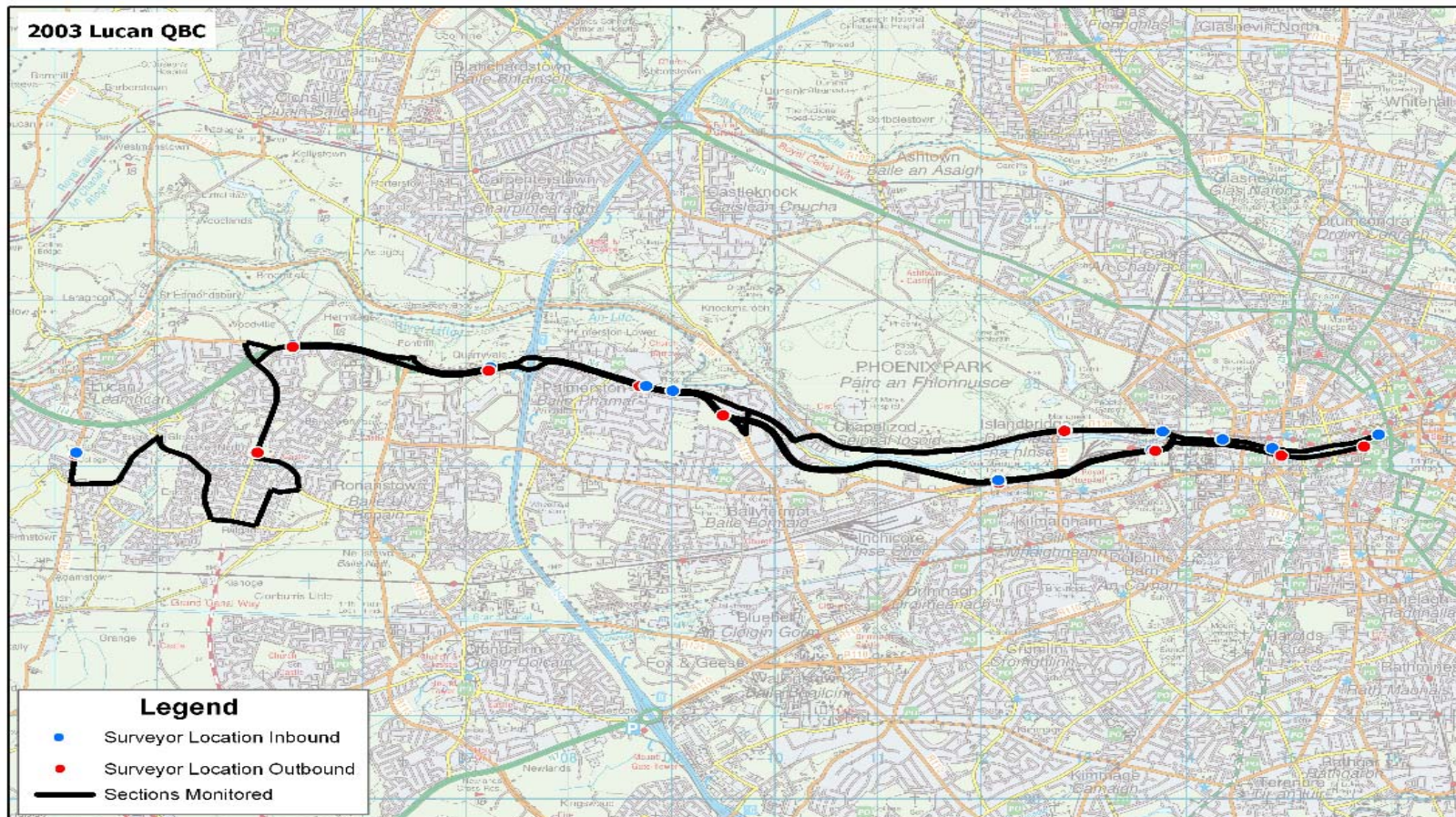


# Finglas QBC

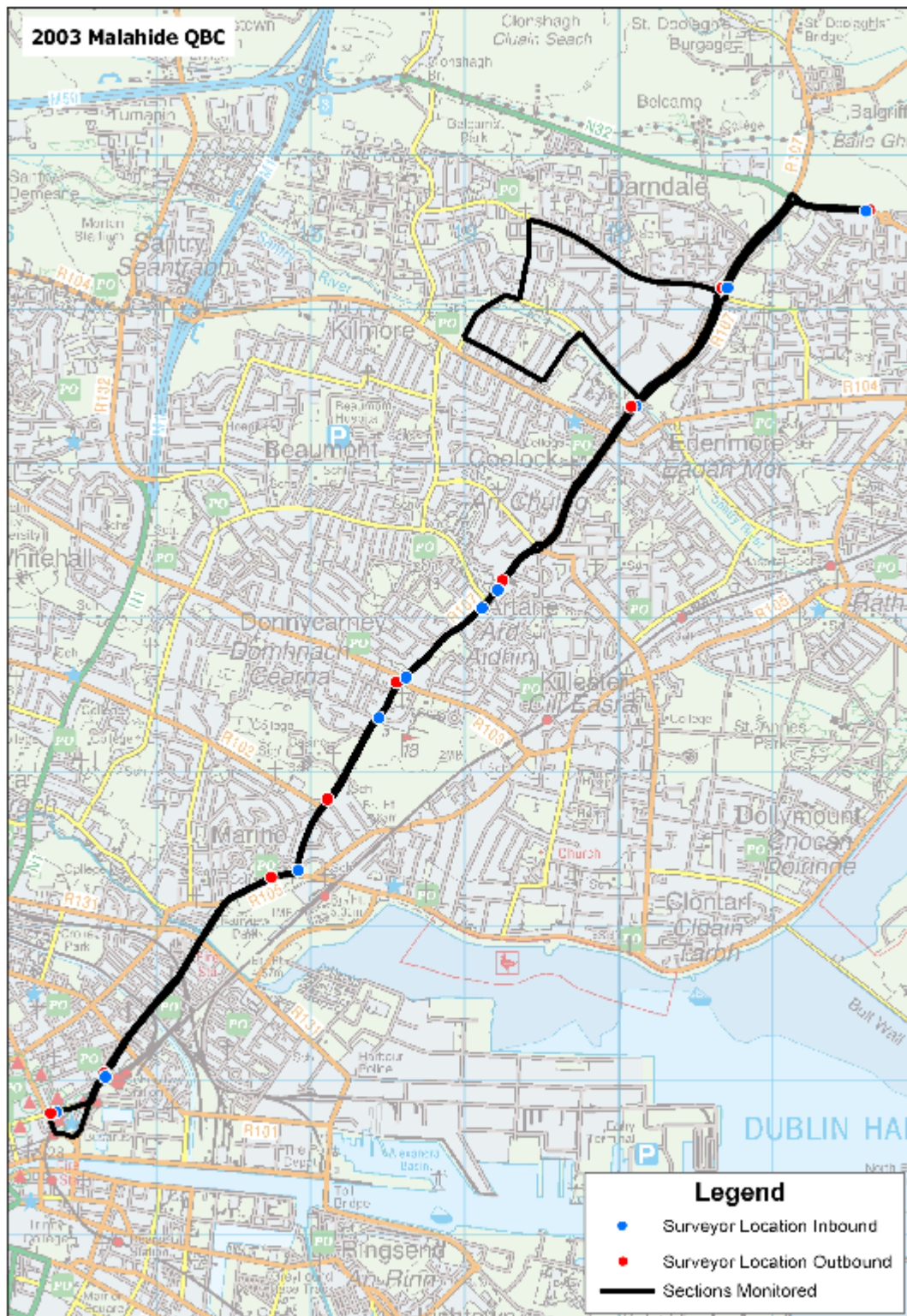




# Lucan QBC



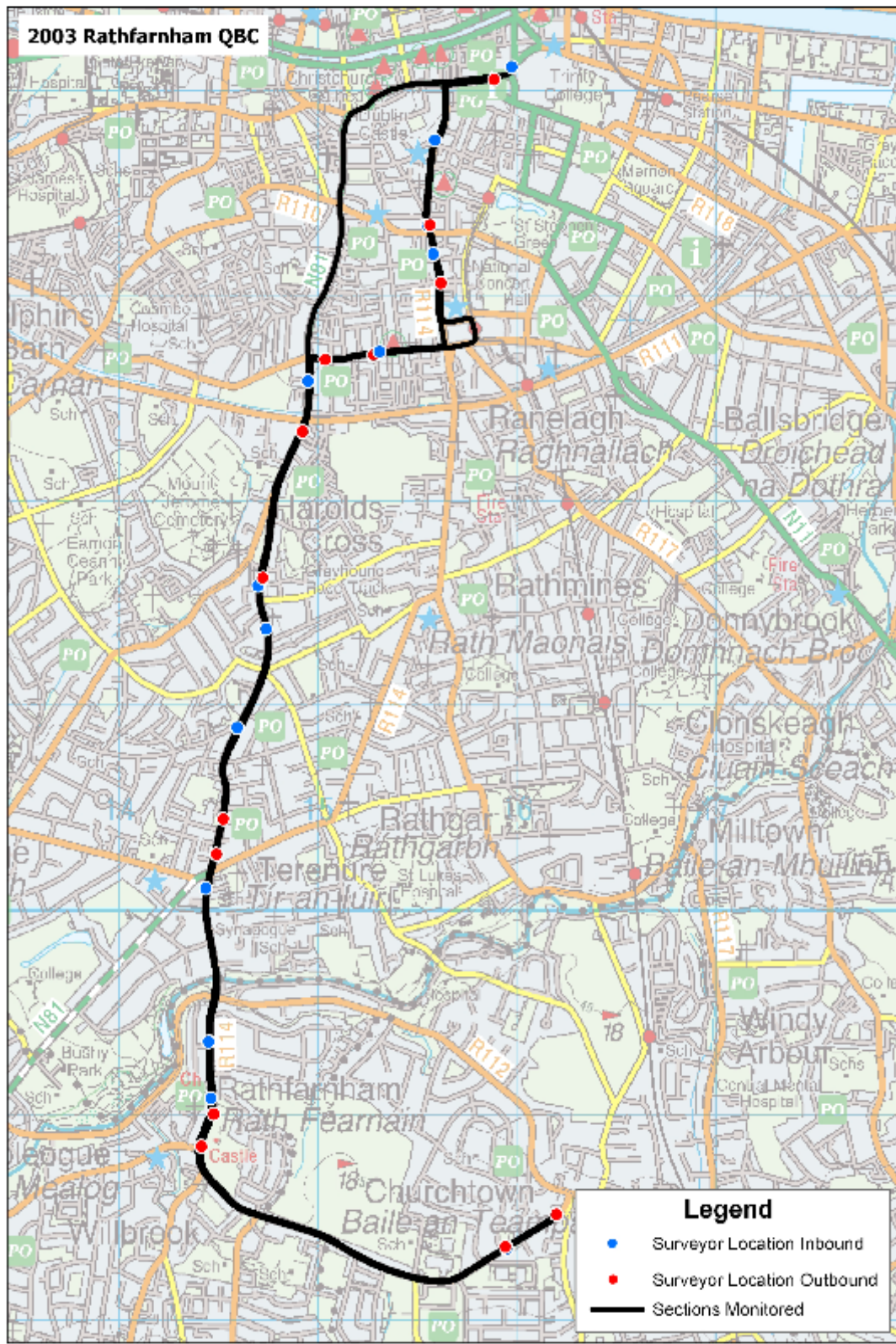
## Malahide QBC







# Rathfarnham QBC



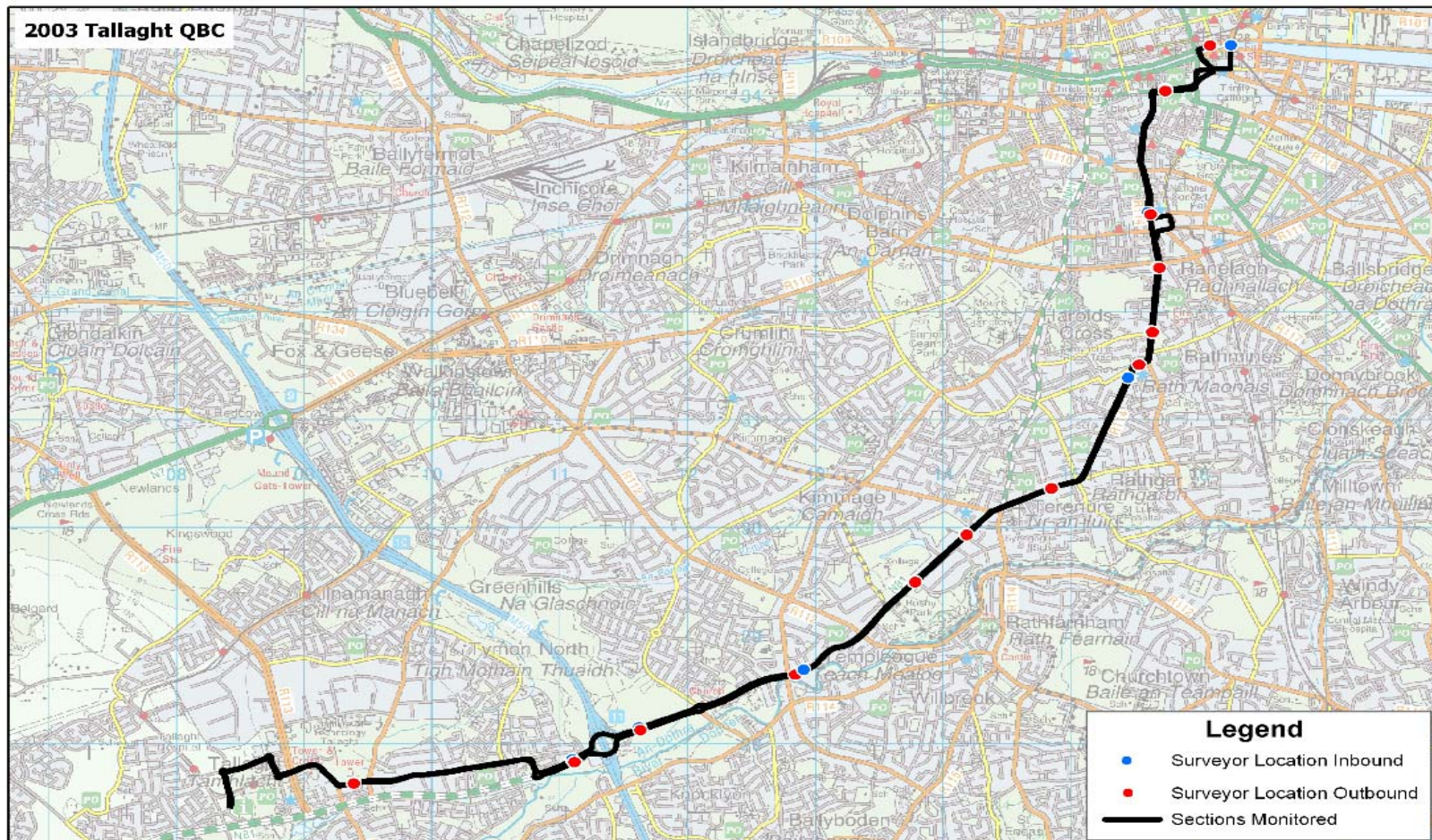
# Stillorgan QBC



# Swords QBC



## Tallaght QBC



## South Clondalkin Pre QBC

