

November 2016

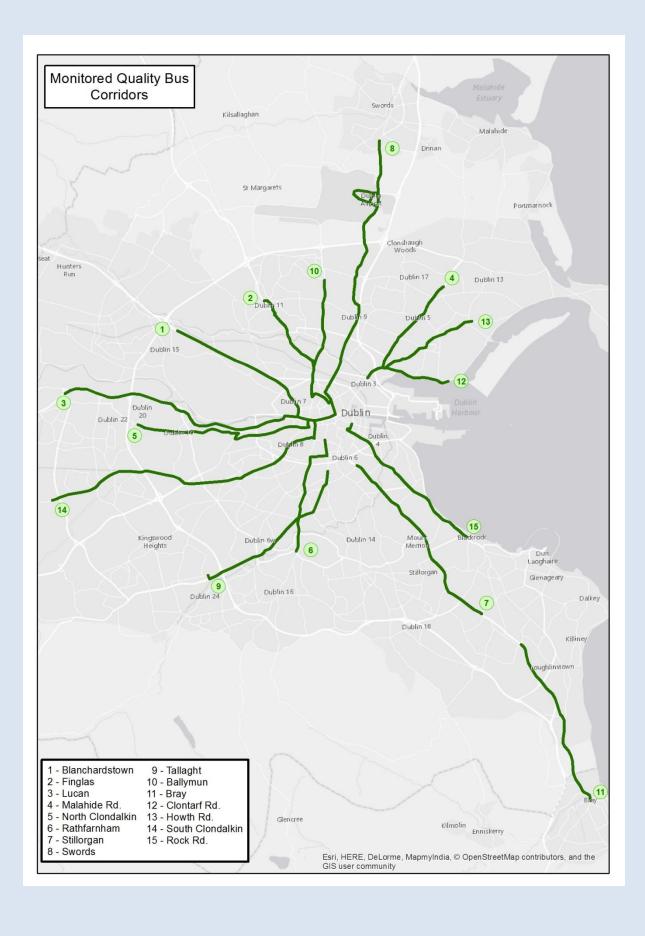
Purpose:

The purpose of the monitoring exercise is to undertake a time series analysis of the operation of each QBC in the Dublin Region. The following information has been measured:

- Bus Journey Time (one-way)
- Bus Speed (one-way)
- Bus / Car Journey Time comparison (one-way)
- Mode Share (canal cordon points)
- Count of bus passengers (canal cordon points)

Scope:

15 QBCs have been analysed over a 4 week period every November. Please refer to figure 1 for a map of the geographical extent of the QBCs monitored.



Data Sources:

Graph 1 – Bus Journey Time:

The one-way bus journey time (AM & PM) for the corridor, as described in each section, is provided by Dublin Bus. It is an extract from their AVL (Automatic Vehicle Location) database covering the month of November. AM journey times refer to the inbound route while PM refers to the outbound.

Graph 2 – Bus Speeds:

The bus speeds are also provided by Dublin Bus, from the AVL database.

Graph 3 – Journey Time Comparisons:

This graph compares one-way bus and car journey times along a shorter section of the QBC. The car journey time data is derived from Sat-Nav units. These units provide up to date but also historic data for journey times across the road network. It is possible to extract the month of November so the data corresponds to the bus AVL data.

Graph 4 – Mode Share:

The mode share data is provided by the Dublin City Council annual cordon count. It is supplemented with the Dublin Bus Cordon Count.

Graph 5 – Bus Passengers:

This graph shows the number of bus passengers at QBC canal cordon points. This data is provided by the Dublin Bus Cordon Count.



1. Blanchardstown Quality Bus Corridor

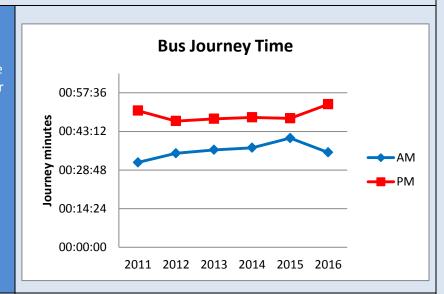
Monitored Corridor – Navan Rd/Morgan's Place to Bachelors Walk Monitored Section – Navan Rd/Morgan's Place to Manor St.

Monitored Corridor:

The Bus Journey Times on the Blanchardstown QBC Corridor have been steadily increasing since 2012.

2016 shows a 5 min. reduction in journey time for the AM and a 5 min. increase in the PM.

AM Journey Time: 0:35:23 PM Journey Time: 0:53:21

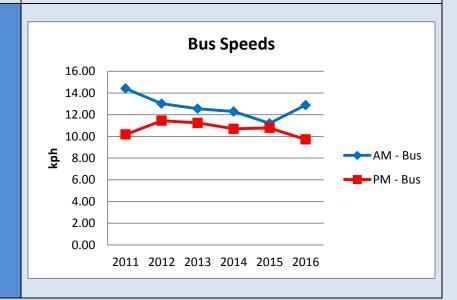


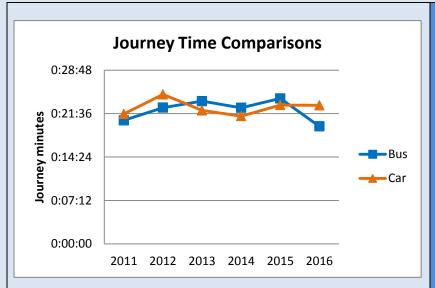
Monitored Corridor:

Bus speeds are steadily reducing since 2012.

2016 speeds follow the change in journey time, speeds increasing by 15% in the AM and decreasing by 10% in the PM.

AM Speed: 12.89kph PM Speed: 9.72kph

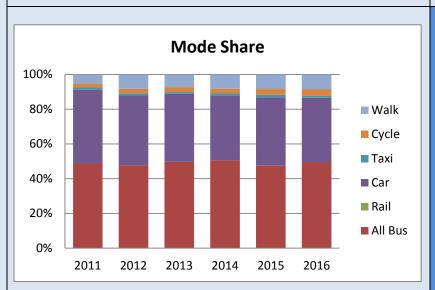




There has been equal fluctuation in bus and car journey times since 2011.

However, in 2016, car times seem to have levelled out while bus journey times have improved by 19%.

Bus Time: 0:19:29 Car Time: 0:22:59



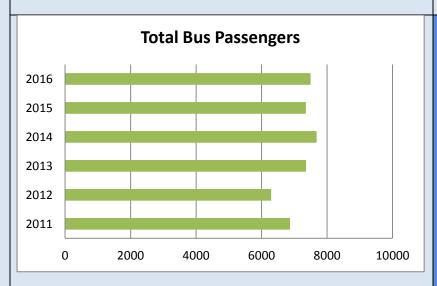
The Canal Cordon crossing points for the Blanchardstown QBC are Blackhorse Avenue, Old and New Cabra Roads.

Car has shown a decrease of nearly 2.5% while bus has increased by just over 2%.

Car – 37% Bus – 49.6% Taxi – 1.1%

Cycle – 3.7%

Walk – 8.7%



The number of bus passengers at the Blanchardstown QBC crossing point has increased by 2% since 2015.



2. Finglas Quality Bus Corridor

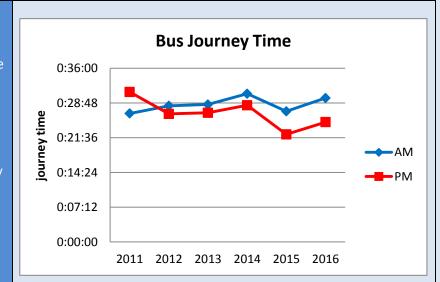
Monitored Corridor – Ballygall Rd. to North Earl St. Monitored Section – Ballygall Rd. to Blessington Court

Monitored Corridor:

The Bus Journey Times on the Finglas QBC Corridor have been increasing between 2012 and 2014.

In 2015 they decrease significantly but rose again by approximately 10% in 2016.

AM Journey Time: 0:29:49 PM Journey Time: 0:24:50

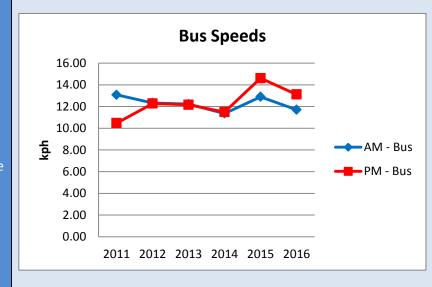


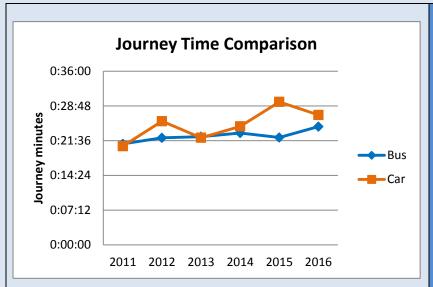
Monitored Corridor:

Bus speeds have been quite stable since 2012; however, in 2015 there was a jump in bus speeds.

The 2016 bus speeds are slower than 2015 for both the AM and PM by 9% and 10%, respectively.

AM Speed: 11.7kph PM Speed: 13.11kph

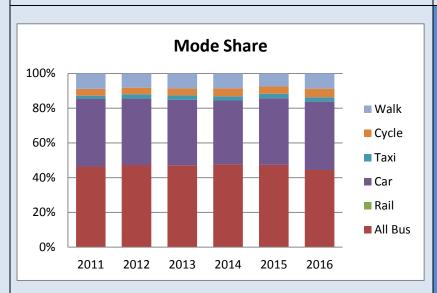




Since 2011, car times have fluctuated while bus journey times have increased.

In 2016, car times have improved slightly by 2mins while bus journey times have increased slightly by approximately the same margin.

Bus Time: 0:24:31 Car Time: 0:26:56



The Canal Cordon crossing point for the Finglas QBC is Binn's Bridge.

Since 2015, bus has decreased by 2.9% while car has increased by 0.9%. Cycle and walk have increased by 0.7% and 1.3%, respectively.

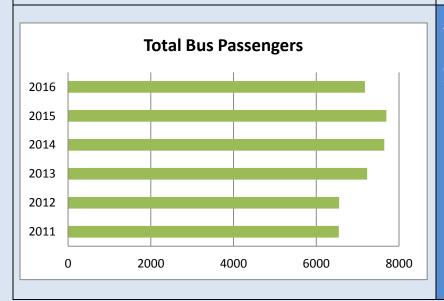
Car – 44.4%

Bus – 39.3%

Taxi – 2.5%

Cycle –5%

Walk - 8.7%



The number of bus passengers at the Finglas QBC crossing point decreased by 7% since 2015.



3. Lucan Quality Bus Corridor

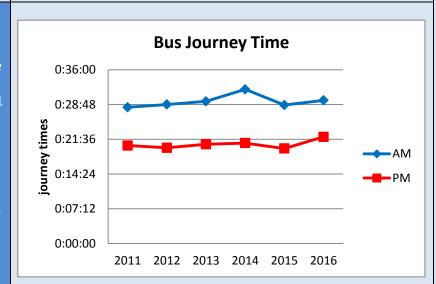
Monitored Corridor – Ballyowen Rd to Capel St Monitored Section – Ballyowen Rd to Ellis St

Monitored Corridor:

The Bus Journey Times on the Lucan QBC Corridor have remained constant since 2011 with a slight increase in the 2014 AM.

In 2016, both the AM and PM journey times slightly increased by 1min and 2mins, respectively.

AM Journey Time: 0:29:40 PM Journey Time: 0:22:05

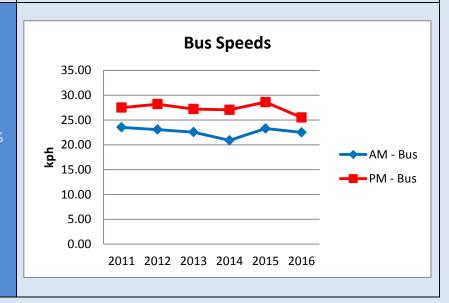


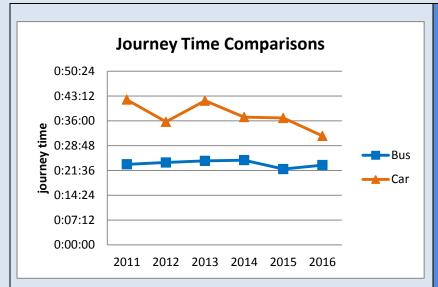
Monitored Corridor:

Bus Speeds for both the AM and PM have remained constant since 2011.

AM speeds have fallen by 3% and PM has fallen by 11%.

AM Speeds: 22.5kph PM Speeds: 25.5kph

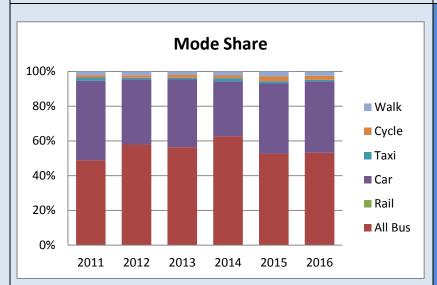




Bus journey time has remained constant since 2011. Car journey times have shown a reduction since 2013.

In 2016, the bus journey has increased by 5% while the car has reduced by 14%.

Bus Time: 0:23:08 Car Time: 0:31:37



The Canal Cordon crossing points for the Lucan QBC are St. John's Road West and Conyngham Road.

Since 2015, bus has increased slightly (0.4%) while cycle and walk have both reduced slightly (0.4% each).

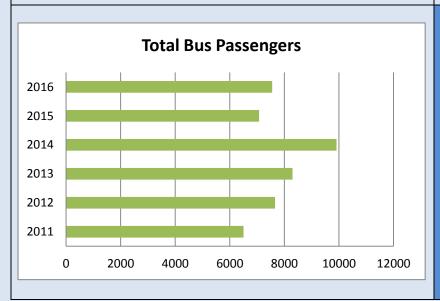
Car - 41%

Bus - 53.2%

Taxi – 0.9%

Cycle – 2.3%

Walk – 2.5%



The number of bus passengers at the Lucan QBC crossing point increased by 7% since 2015.



4. Malahide Road Quality Bus Corridor

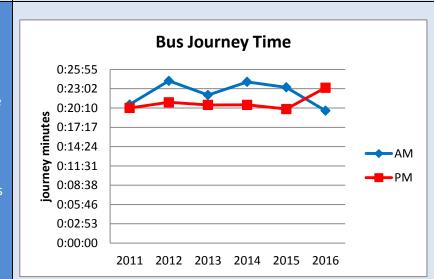
Monitored Corridor – Malahide Rd to Nth Strand Rd Monitored Section – Malahide Rd to Griffith Ave

Monitored Corridor:

The AM Bus journey time on the Malahide Rd QBC has varied considerable while the PM shows a more even pattern.

In 2016 the AM journey time has reduced by almost 4 mins while the PM has increased by 3.

AM Journey Time: 0:19:46 PM Journey Time: 0:23:11

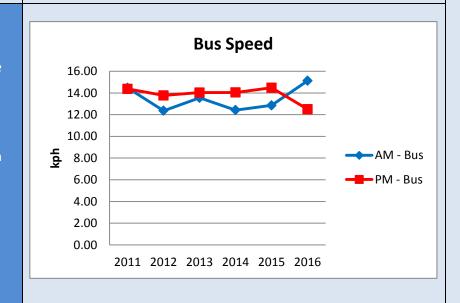


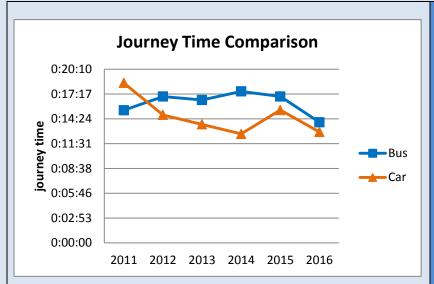
Monitored Corridor:

Bus speeds have been quite even in the PM since 2011.

2016 speeds follow the change in journey time, speeds increasing by 18% in the AM and decreasing by 14% in the PM.

AM Speeds: 15.12kph PM Speeds: 12.5kph

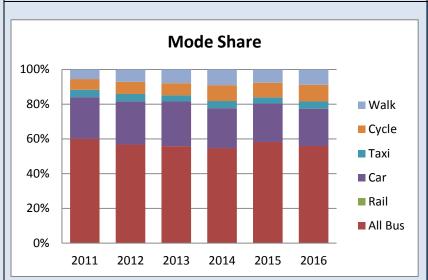




There has been a general decrease in bus and car journey time since 2011 and that continues in 2016.

Both bus and car journey times have reduced by approximately 17%.

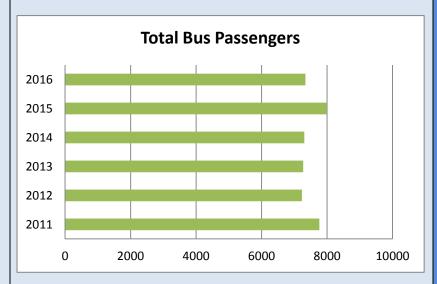
Bus Time: 0:14:00 Car Time: 0:12:52



The Canal Cordon crossing point for the Malahide Rd. QBC is Newcomen Bridge.

Since 2015, both bus and car have decreased slightly by 2.3% and 0.6%, respectively. Taxi has slightly increased by 0.5%. Both cycle and walk have increased by 1.2%.

Car – 21.4% Bus – 56.0% Taxi – 4.2% Cycle –9.6% Walk – 8.8%



The number of bus passengers at the Malahide Rd. QBC crossing point decreased by 8% since 2015.



5. North Clondalkin Quality Bus Corridor

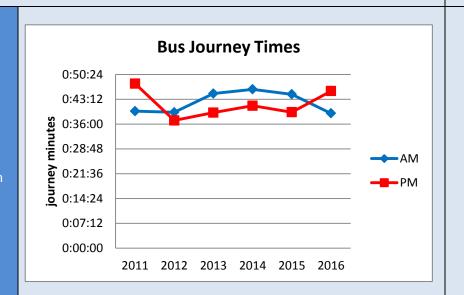
Monitored Corridor – Ballyfermot Rd to Fishamble St Monitored Section – Ballyfermot Rd to High St

Monitored Corridor:

Bus Journey Times have been decreasing since 2014, this continues into 2016 for the AM but there is an increase in journey time in 2016 for PM.

2016 shows a 4 min reduction in journey time in the AM and a 6 min increase in the PM.

AM Journey Time: 0:39:07 PM Journey Time: 0:45:34

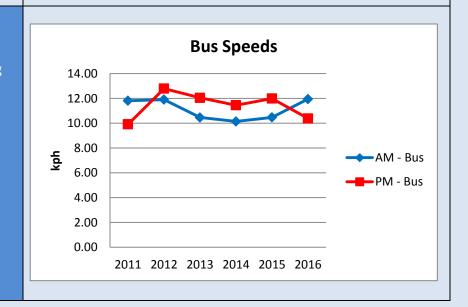


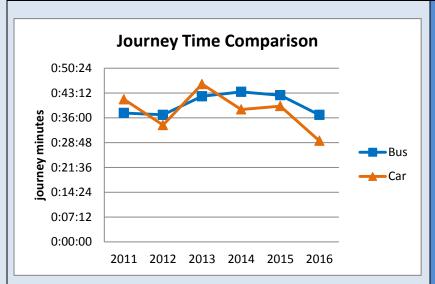
Monitored Corridor:

Bus speeds have been reducing between 2012 and 2014.

2016 shows a 14% increase in speed in the AM and a 13% decrease in the PM.

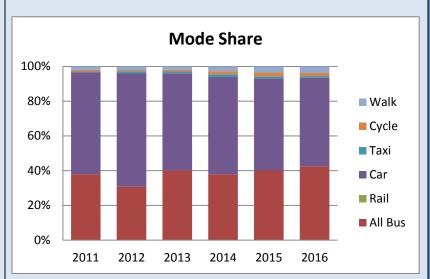
AM Speeds: 11.95kph PM Speeds: 10.38kph





Both Bus and Car journey times have improved since 2015. The bus journey time has decreased by almost 6 mins while the car has taken 10 minutes off its journey.

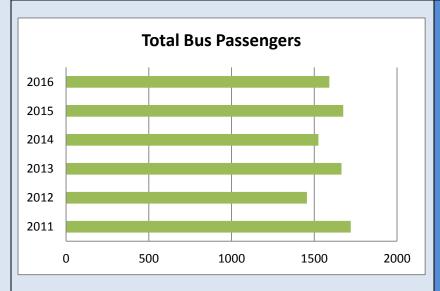
Bus Time: 0:36:51 Car Time: 0:29:19



The Canal Cordon crossing point for North Clondalkin QBC is Old Kilmainham.

Since 2015, bus and walk have increased slightly (2.4% & 0.3%) while car, taxi and cycle have decreased by 2.1%, 0.3% and 0.4%, respectively.

Car – 42.5% Bus – 51% Taxi – 0.9% Cycle – 1.8% Walk – 3.8%



The number of bus passengers at the North Clondalkin QBC crossing point decreased by 5% since 2015.



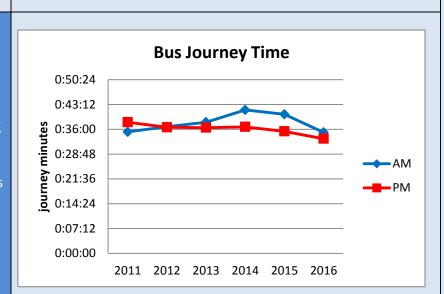
6. Rathfarnham Quality Bus Corridor

Monitored Corridor – Rathfarnham Rd to George St / Exchequer St Monitored Section – Rathfarnham Rd to Aungier St / Peter Row

Monitored Corridor:

Bus Journey Times on the Rathfarnham QBC have been decreasing since 2014. The AM Journey Time shows a much sharper improvement than the PM. AM journey time in 2016 has decreased by 5 minutes.

AM Journey Time: 0:35:06 PM Journey Time: 0:33:16

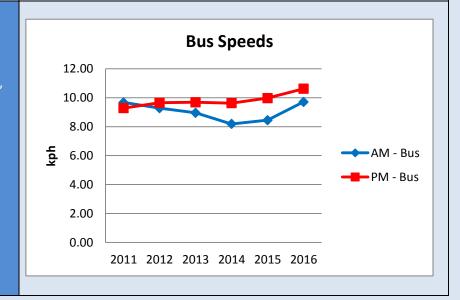


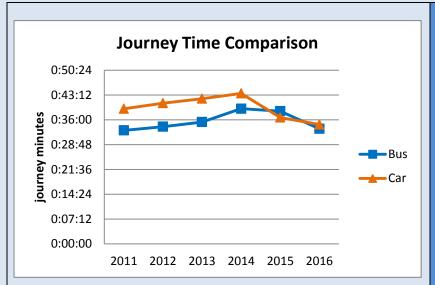
Monitored Corridor:

Bus Speeds have generally been improving since 2014, this continues in 2016.

AM speeds have improved by 15% while PM has improved by 6%.

AM Speed: 9.71kph PM Speed: 10.62kph

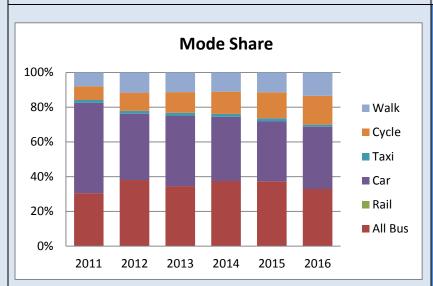




Both car and bus journey times increased between 2011 and 2014. After this there has been a steady reduction.

In 2016, the car journey time has decreased by 5% while the bus has decreased by 13%.

Bus Time: 0:33:24 Car Time: 0:34:39



The Canal Cordon crossing point for the Rathfarnham QBC is Harold's Cross.

In the last 12 months bus has decreased by 4.4%. Cycle and walk have both increased by 1.7% and 2%, respectively. Car has slightly increased by 1.1%.

Car – 35.8% Bus – 32.9% Taxi – 1.2% Cycle – 16.6% Walk – 13.5%



The number of bus passengers at the Rathfarnham QBC crossing point decreased by 20% since 2015.



7. Stillorgan Quality Bus Corridor

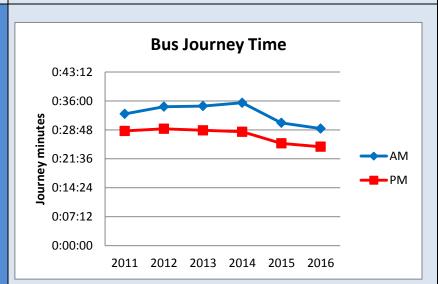
Monitored Corridor – Stillorgan Rd / Springfield Park to Appian Way Monitored Section – Stillorgan Rd / Sycamore Crescent to Appian Way

Monitored Corridor:

The Bus Journey Times on the Stillorgan QBC Corridor have been reducing since 2014.

There is approximately 1 min reduction in the AM and PM.

AM Journey Time: 0:29:08 PM Journey Time: 0:24:37

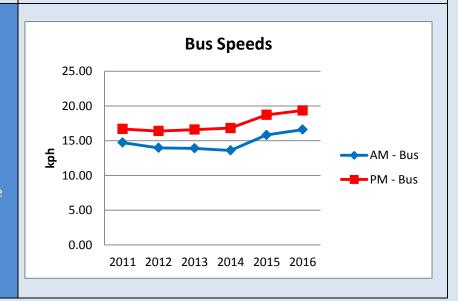


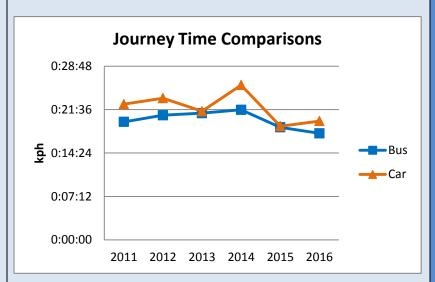
Monitored Corridor:

Bus speeds have been increasing since 2014. This matches the decrease in journey time for the same period.

The 2016 bus speeds are 22% faster than 2014 in the AM and 15% faster in the PM.

AM Speed: 16.6kph PM Speed: 19.35kph

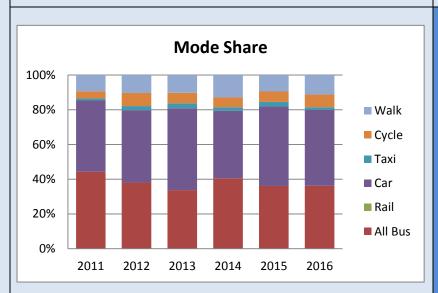




Bus journey times on the monitored section have remained constant since 2011. Car journey times have increased since 2011, with a large spike in 2014.

In 2016, Bus journey times have decreased by 1 min while car journey times have increased by 1 min.

Bus Time: 0:17:40 Car Time: 0:19:42



The Canal Cordon crossing point for the Stillorgan QBC is Leeson St.

Car mode share has slightly decreased since 2015 by 2.1% while bus has marginally increased by 0.1%. Cycle and walk have increased by 1.3% and 1.7%.

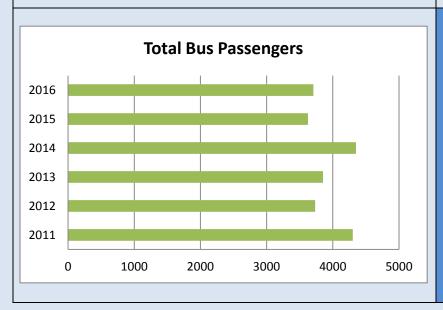
Car – 43.6%

Bus - 36.3%

Taxi – 1.6%

Cycle – 7.3%

Walk - 11.2%



The number of bus passengers at the Stillorgan QBC crossing point has increased by 2% since 2015.



8. Swords Quality Bus Corridor

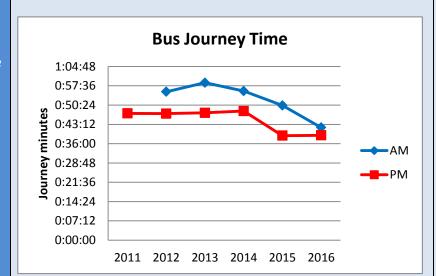
Monitored Corridor – Swords Equestrian Centre to O'Connell St Monitored Section – Swords Equestrian Centre to Drumcondra Station

Monitored Corridor:

The Bus Journey Times on the Swords QBC Corridor have been decreasing in both the AM and the PM since 2012.

The AM and the PM are running at very similar journey times. In 2016, the AM journey time was 42mins which was approximately 8 mins faster than 2015.

AM Journey Time: 0:42:04 PM Journey Time: 0:39:07



*No AM Peak Hour AVL data available for 2011

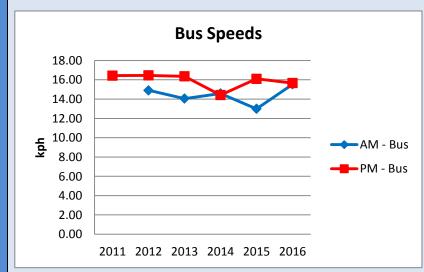
Monitored Corridor:

Bus speeds have been quite stable since 2012.

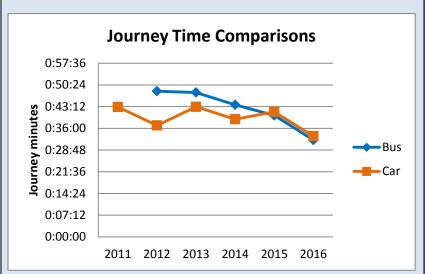
The 2016 bus speeds are 16% faster than 2015 in the AM but there has been a slight reduction in speed in the PM (3%).

AM Speed: 15.54kph PM Speed: 15.66kph

(There is a change in distance around the airport stops in 2015/2016. This has an impact on the speeds in these years.)



*No AM Peak Hour AVL data available for 2011

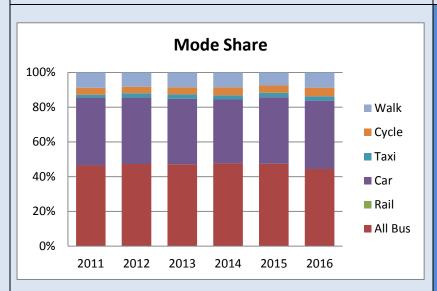


There has been a steady reduction in bus journey time since 2012. The car journey time has fluctuated a little more.

In 2016, there has been an 8 minute reduction in both the bus and the car journey time.

Bus Time: 0:32:06 Car Time: 0:33:24

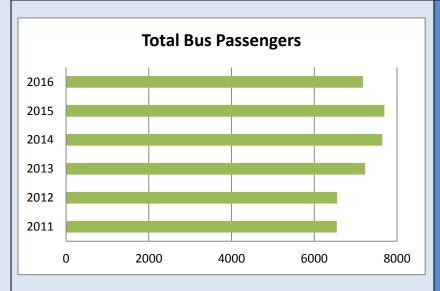
*No AM Peak Hour AVL data available for 2011



The Canal Cordon crossing point for the Swords QBC is Binn's Bridge.

Since 2015, bus has decreased by 2.9% while car has increased by 0.9%. Cycle and walk have increased by 0.7% and 1.3%, respectively.

Car – 44.4% Bus – 39.3% Taxi – 2.5% Cycle –5% Walk – 8.7%



The number of bus passengers at the Swords QBC crossing point has decreased by 7% since 2015.



9. Tallaght Quality Bus Corridor

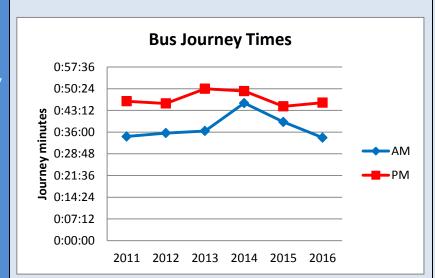
Monitored Corridor – Tallaght Rd to Rathmines Rd / Military Rd Monitored Section – Tallaght Rd to Rathmines Rd / Military Rd

Monitored Corridor:

The Bus Journey Times on the Tallaght QBC Corridor steadily increased in the AM since 2011.

However, in 2015 journey times were reduced dramatically in both AM and PM. This continued in the 2016 AM (5 mins) but there was a slight increase in the PM.

AM Journey Time: 0:34:11 PM Journey Time: 0:45:46

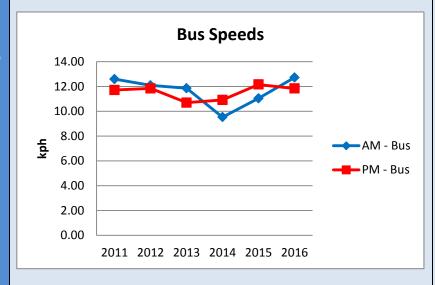


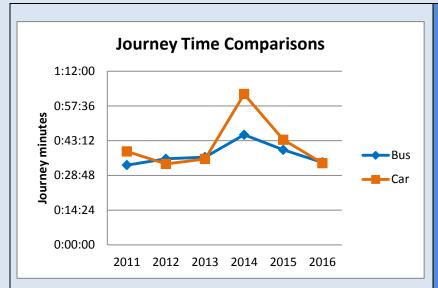
Monitored Corridor:

Bus speeds have continued to increase in the AM since 2014.

2016 speeds have increased by 15% in the AM and have reduced by 3% in the PM.

AM Speed: 12.72kph PM Speed: 11.84kph

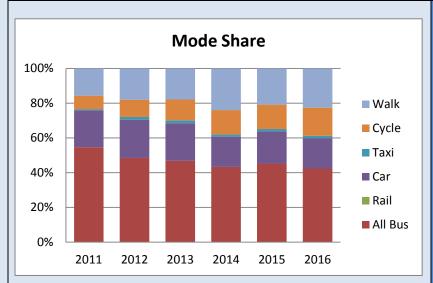




Bus and car have been performing similarly since 2011.

2016 shows another decrease in journey time for both modes, 5 mins for bus and almost 10 mins for car.

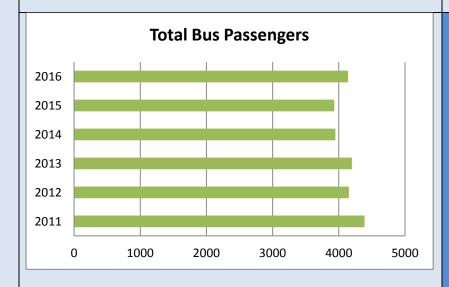
Bus Time: 0:34:11 Car Time: 0:33:54



The Canal Cordon crossing point for the Tallaght QBC is Rathmines Road (Portobello).

Bus and car mode share have decreased by 2.9% and 1.1% in the last year. Taxi remains unchanged (1.3%). Cycle and walk have both increased by 2.2% and 1.7%, respectively.

Car –17.5% Bus – 42.4% Taxi – 1.3% Cycle – 16.2% Walk – 22.6%



The number of bus passengers at the Tallaght QBC crossing point has increased by 5% since 2015.



10. Ballymun Quality Bus Corridor

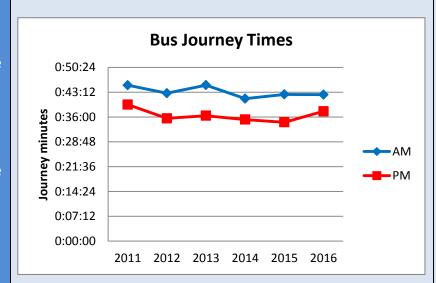
Monitored Corridor – Ballymun Rd to Parnell St Monitored Section – Ballymun Rd to Blessington St

Monitored Corridor:

The Bus Journey Times on the Ballymun QBC Corridor have remained static in both the AM and the PM since 2011.

In 2016, there was no change in the AM journey time, there was a 3 minute increase in the PM journey time.

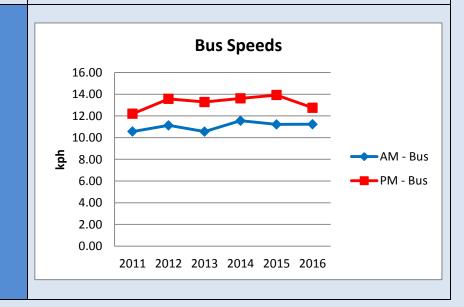
AM Journey Time: 0:42:30 PM Journey Time: 0:37:39

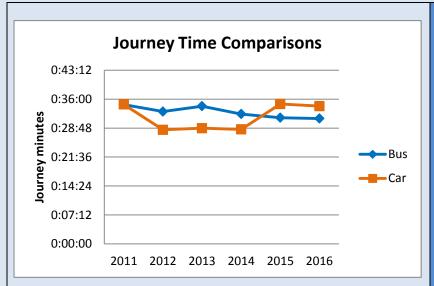


Monitored Corridor:

In the same manner as the bus journey times, bus speeds have been quite stable since 2012.

AM Speed: 11.23kph PM Speed: 12.75kph

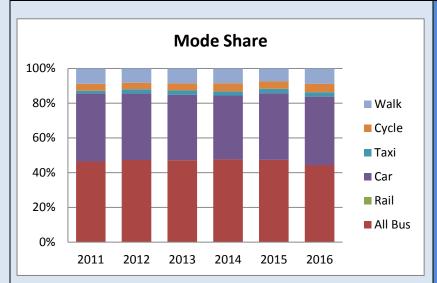




While the bus journey time has remained stable the car journey time increased dramatically in 2015.

This evened out in 2016 where there was only a 30sec difference from 2015.

Bus Time: 0:31:11 Car Time: 0:34:16



The Canal Cordon crossing point for the Ballymun QBC is Binn's Bridge.

Since 2015, bus has decreased by 2.9% while car has increased by 0.9%. Cycle and walk have increased by 0.7% and 1.3%, respectively.

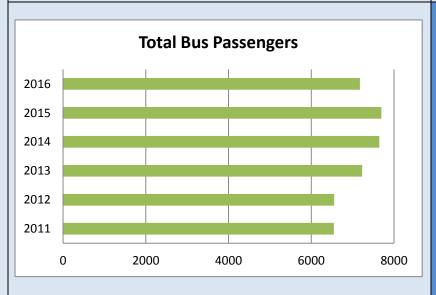
Car – 44.4%

Bus – 39.3%

Taxi – 2.5%

Cycle –5%

Walk - 8.7%



The number of bus passengers at the Ballymun QBC crossing point has decreased by 7% since 2015.



11. Bray Quality Bus Corridor

Monitored Corridor – Dublin Rd / Roseville Court to Bray Rd / Shrewsbury House Monitored Section – Dublin Rd / Roseville Court to Bray Rd / Shrewsbury House

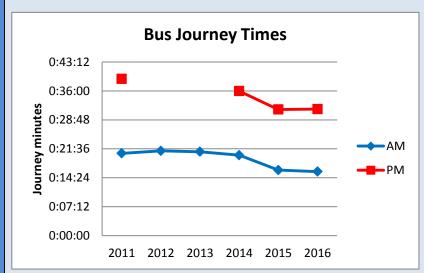
Monitored Corridor:

The Bus Journey Times on the Bray QBC Corridor have been improving since 2013.

The 2016 AM journey time is 2% faster than it was in 2015.

The PM journey time has remained the same as 2015.

AM Journey Time: 0:15:56 PM Journey Time: 0:31:29



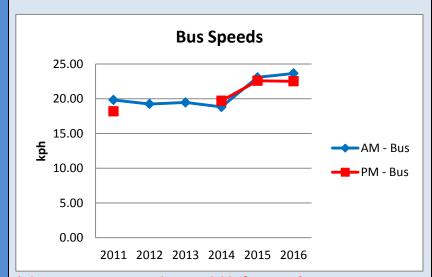
*There was no PM AVL data available for 2012 & 2013

Monitored Corridor:

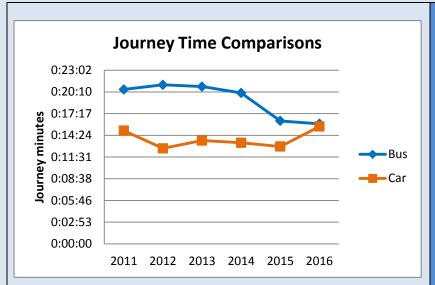
Bus speeds have been quite stable since 2012; however, in 2015 there was a jump in bus speeds.

The 2016 bus speeds are 2% faster than 2015 in the AM and have remained the same in the PM.

AM Speed: 23.64kph PM Speed: 22.51kph



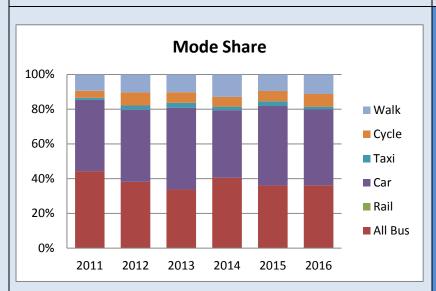
*There was no PM AVL data available for 2012 & 2013



Bus and car journey times on the monitored section have remained constant between 2011 and 2014.

In 2016, Bus journey times have remained the same as 2015 while car journey times have increased by 2^{1/2} mins.

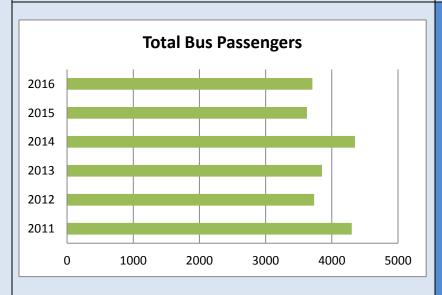
Bus Time: 0:15:56 Car Time: 0:15:34



The Canal Cordon crossing point for the Bray QBC is Leeson St.

Car mode share has slightly decreased since 2015 by 2.1% while bus increased marginally by 0.1%. Cycle and walk have increased by 1.3% and 1.7%.

Car – 43.6% Bus – 36.3% Taxi – 1.6% Cycle – 7.3% Walk – 11.2%



The number of bus passengers at the Bray QBC crossing point has increased by 2% since 2015.



12. Clontarf Quality Bus Corridor

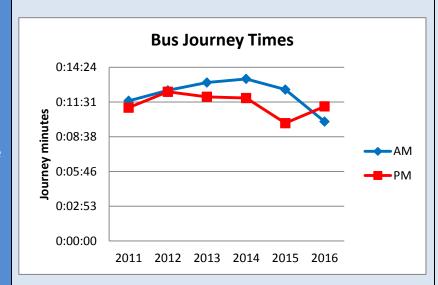
Monitored Corridor – Clontarf Rd to Fairview Footbridge Monitored Section – Clontarf Rd to Fairview Footbridge

Monitored Corridor:

The Bus journey time on the Clontarf Rd QBC have been decreasing since 2014.

This trend continues in 2016 for the AM ($2^{1/2}$ mins) but the PM show an increase ($1^{1/2}$ mins) in journey time for 2016.

AM Journey Time: 0:09:54 PM Journey Time: 0:11:09

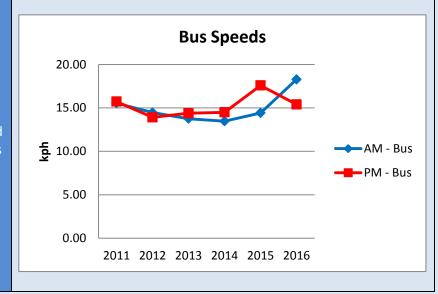


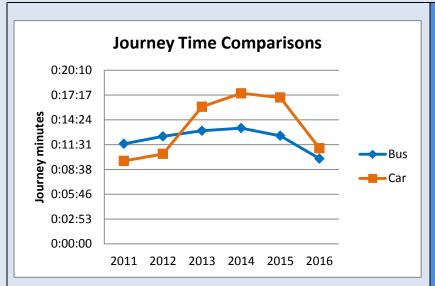
Monitored Corridor:

Bus speeds have been increasing since 2104 in AM and PM.

2016 AM speed has increased by 21% while the PM speed is a reduction of just over 2kph or 14% from 2015.

AM Speed: 18.28kph PM Speed: 15.41kph

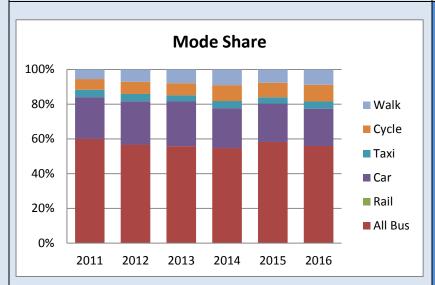




There has been a steady improvement in journey time since 2014.

Bus and car journey times continue to improve in 2016, bus by over 2 mins, car by almost 6 mins.

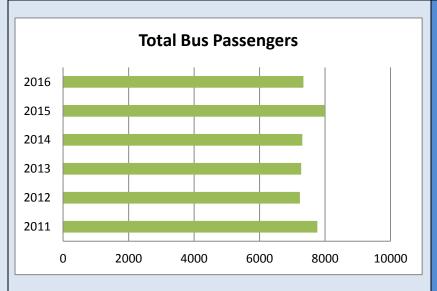
Bus Time: 0:09:54 Car Time: 0:11:06



The Canal Cordon crossing point for the Clontarf Road QBC is Newcomen Bridge.

Since 2015, both bus and car have decreased slightly by 2.3% and 0.6%, respectively. Taxi has slightly increased by 0.5%. Both cycle and walk have increased by 1.2%.

Car – 21.4% Bus – 56.0% Taxi – 4.2% Cycle –9.6% Walk – 8.8%



The number of bus passengers at the Clontarf Rd. QBC crossing point has decreased by 8% since 2015.



13. Howth Quality Bus Corridor

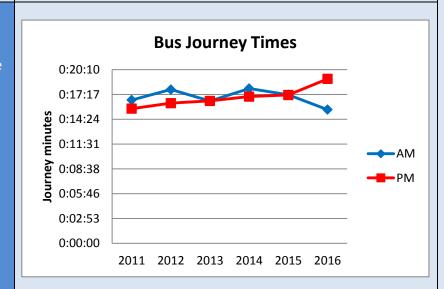
Monitored Corridor – Howth Rd / Station Rd to Fairview Footbridge Monitored Section – Howth Rd / Station Rd to Fairview Footbridge

Monitored Corridor:

The Bus journey times on the Howth QBC are quite similar in the AM and PM and have been consistent since 2011.

However, they diverge in 2016 with the AM improving by almost 2mins and the PM reducing by almost 2 mins.

AM Journey Time: 0:15:31 PM Journey Time: 0:19:05

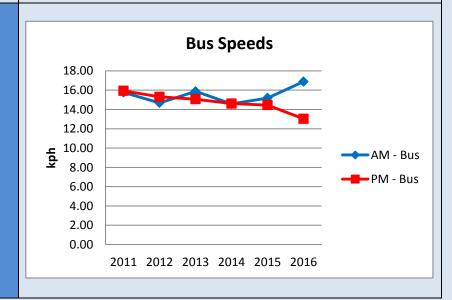


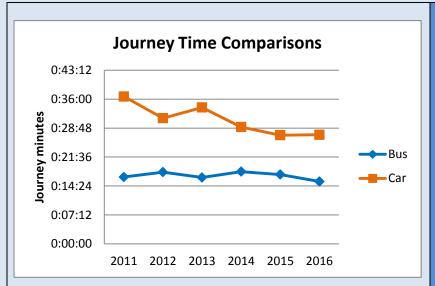
Monitored Corridor:

The bus speeds follow the same pattern as the journey times.

AM speeds improve in 2016 while the PM is showing reductions in speed.

AM Speed: 16.88kph PM Speed: 13.04kph

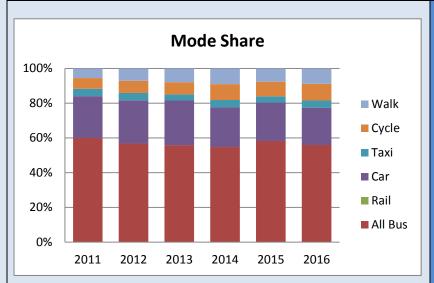




Bus and car journey times have been constant over the period 2012 – 2016.

The bus shows a 2min reduction in 2016 while the car shows no change.

Bus Time: 0:15:31 Car Time: 0:27:08



The Canal Cordon crossing point for the Howth QBC is Newcomen Bridge.

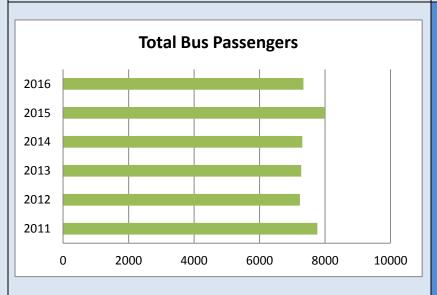
Since 2015, both bus and car have decreased slightly by 2.3% and 0.6%, respectively. Taxi has slightly increased by 0.5%. Both cycle and walk have increased by 1.2%.

Car – 21.4%

Bus – 56.0% Taxi – 4.2%

Cycle -9.6%

Walk - 8.8%



The number of bus passengers at the Howth Rd. QBC crossing point has decreased by 8% since 2015.



14. South Clondalkin Quality Bus Corridor

Monitored Corridor – Grange Castle to Custom House Quay
Monitored Section – Grange Castle to Patrick St

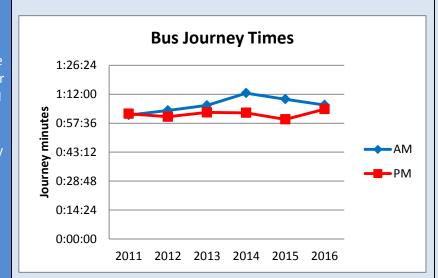
Monitored Corridor:

The Bus Journey Times on the South Condalkin QBC Corridor had increased in both the AM and PM since 2011.

However, in 2014 AM journey time increased while the PM reduced.

2016 shows AM journey times improve by 3 mins and PM increase by 5 mins.

AM Journey Time: 1:06:41 PM Journey Time: 1:04:37

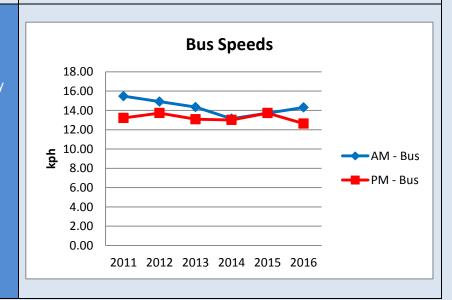


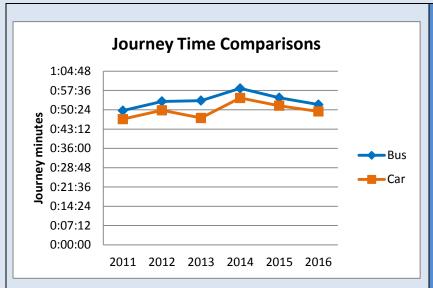
Monitored Corridor:

Bus speeds have remained constant in the PM with very little variation. AM speeds have fluctuated slightly.

The 2016 bus speeds are 8% faster than 2015 in the AM and 7% slower in the PM.

AM Speed: 14.30kph PM Speed: 12.63kph

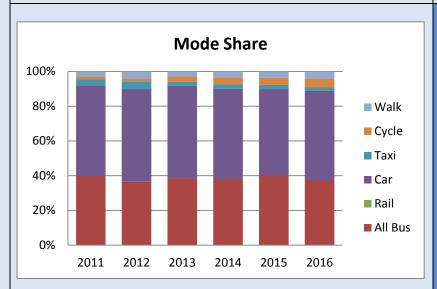




Bus and car journey times have been improving since 2014.

Since 2015, both bus and car journey times have decreased by approx. 2minutes each.

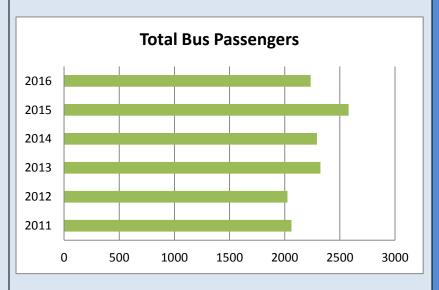
Bus Time: 0:52:21 Car Time: 0:49:47



The Canal Cordon crossing point for the South Condalkin QBC is Dolphin's Barn.

Bus mode share has decreased since 2015 by 2.6%. Car has increased by 1.7%. Cycle and walk have increased by 0.7% and 0.8%.

Car -51.4% Bus - 37.5% Taxi - 1.8% Cycle - 4.9% Walk - 4.4%



The number of bus passengers at the South Clondalkin QBC crossing point has decreased by 13% since 2015.



15. Rock Road Quality Bus Corridor

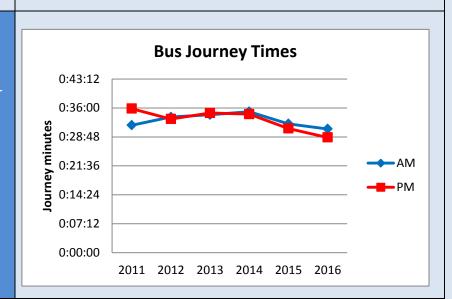
Monitored Corridor – Frascati Rd to Clare St Monitored Section – Frascati Rd to Northumberland Rd

Monitored Corridor:

The Bus Journey Times on the Rock Road QBC Corridor have been decreasing since 2014.

AM journey time has improved by 1 min in 2016 while the PM has improved by 2 mins.

AM Journey Time: 0:30:47 PM Journey Time: 0:28:41

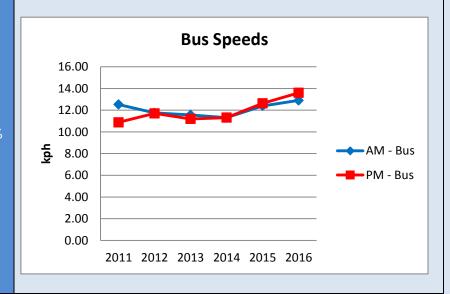


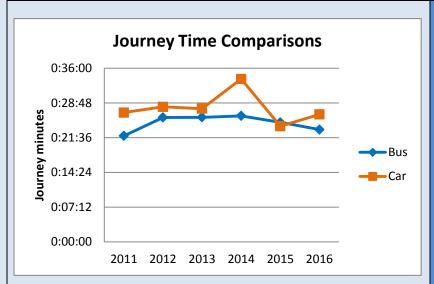
Monitored Corridor:

Bus speeds in both the AM and the PM have been increasing since 2014.

The 2016 bus speeds are 8% faster than 2015 in the AM and 9% faster in the PM.

AM Speed: 12.90kph PM Speed: 13.60kph

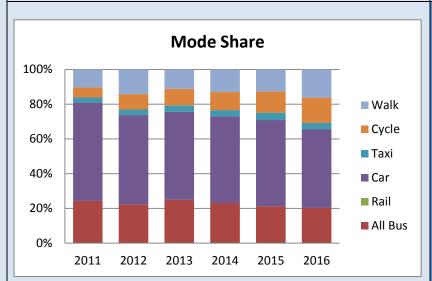




Except for a spike in car journey times in 2014, bus and car journey times have remained constant since 2011.

In 2016, bus journey times have decreased slightly while car journey times have increased by almost 3 minutes.

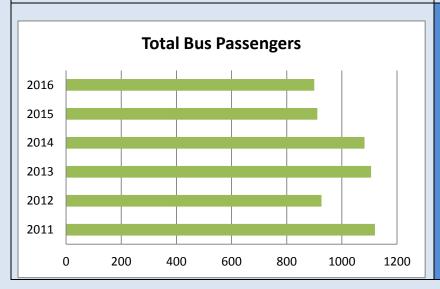
Bus Time: 0:23:17 Car Time: 0:26:25



The Canal Cordon crossing point for the Rock Road QBC is Mount Street.

Since 2015 bus, car and taxi mode share have decreased by 0.9%, 4.6% and 0.4%. Cycle and walk have increased by 2.3% and 3.5%, respectively.

Car -45.1% Bus - 20.3% Taxi - 3.8% Cycle - 14.6% Walk - 16.2%



The number of bus passengers at the Rock Rd. QBC crossing point has decreased by 1% since 2015.