

South West Dublin and the Continuation of MetroLink



IMPROVEMENT IN COMMUTING TIMES



Metro South West

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SOUTH WEST DUBLIN AND THE CONTINUATION OF METROLINK

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Table of Contents

- 1 Introduction
- 2 The area to be served by the continuation of *MetroLink*
- 3 Active modes of travel
- 4 Commuting times which relate to a hypothetical Metro station at Spawell
- 5 Commuting times which relate to a hypothetical Metro station at Dodder Valley Park
- 6 Connectivity
- 7 Journey times for long distance car commuters and the M50
- 8 Conclusions

SOUTH WEST DUBLIN AND THE CONTINUATION OF *METROLINK* IMPROVEMENT IN COMMUTING TIMES

1 Introduction

1.1 The South West Dublin Metro Group (SWDMG) has established that buses on their own cannot deliver sufficient capacity to fulfil the public transport needs of the population of South West Dublin¹.

1.2 Government decided that *MetroLink* would not be used to upgrade the Green Luas line. The response of the National Transport Authority (NTA) was to propose bringing *MetroLink* southwards to Saint Stephens Green, then turn left for two kilometres and park the Tunnel Boring Machine beneath Beechwood. This section of tunnel would be of no benefit to any passenger and it would incur a high cost². It would be much more cost-effective to continue to bore towards South West Dublin, where there is a real need for high capacity public transport³.

1.3 *The Case for Continuing MetroLink to South West Dublin* requested that an early Feasibility Study be carried out into continuing *MetroLink* to South West Dublin. One of the matters that will be important in the Feasibility Study is estimating the likely patronage of the continuation of *MetroLink*. Patronage will be important in estimating cash flows, the impact on pollution and the benefit-cost ratio.

1.4 The number of passengers availing of the continuation of *MetroLink* would be a function of:

- (i) The population of the catchment area; and
- (ii) The attractiveness of the metro service.

The Case for Continuing MetroLink to South West Dublin contained an analysis of the catchment population and concluded that this population is the same as for the Green Luas catchment⁴.

1.5 **This paper is concerned with the attractiveness of the proposed metro service.** A key element of the attractiveness of the continuation of *MetroLink* would be the improvements in commuting times that would arise in South West Dublin, if *MetroLink* were continued to the general Firhouse area. The focus is on morning peak time commuting. The approach used is to:

- a) Estimate journey times to the GPO, O'Connell Street today from different districts within the area to be served by the continuation of *MetroLink* using the following modes of transport: car, bus and bike.
- b) Assume entirely hypothetically, that the continuation of *MetroLink* would have stations at Spawell and Dodder Valley Park (beside Dodder Avenue).
- c) Estimate journey times from districts in South West Dublin to these metro stations by walking, cycling or driving, and onwards to O'Connell Street by metro.
- d) Compare the journey times today with the journey times which metro would provide.
- e) Consider the particular possibility that a Park and Ride at Spawell could remove many cars from the M50 and N81.

¹ *The Case for Continuing MetroLink to South West Dublin*, Dublin South West Metro Group, August 2020

² *Ibid*, paragraph 3.3.

³ *Ibid*, paragraph 3.4.

⁴ *Ibid*, paragraph 2.3.2

- f) All the estimated travel times by mode are taken from Google Maps and assume a departure time from home of 7.50am. Walking and cycling speeds are also taken from Google Maps.

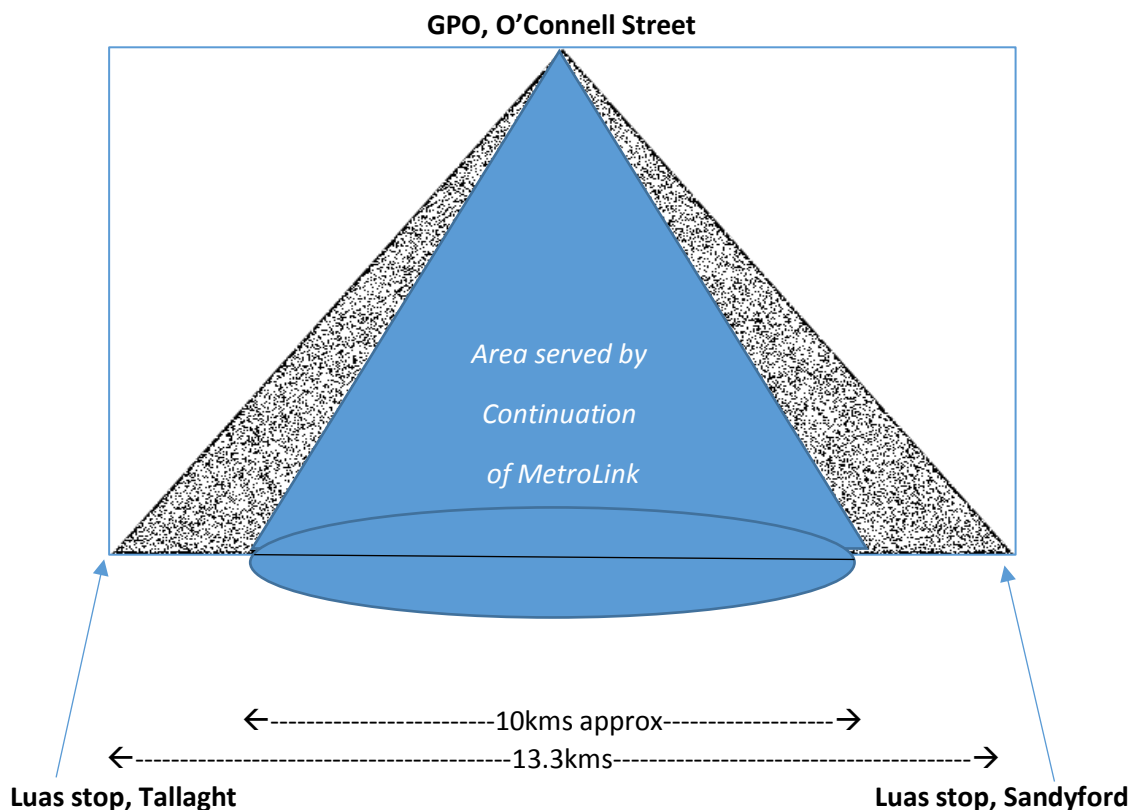
Excluded are areas which are close to the Red or Green Luas lines. The main focus is on 'outer suburbs', i.e. below Walkinstown Avenue – St Peters Road – Templeville Road – Dodder Park Road. This is the most challenging part of the catchment area for the proposed metro. The reason for this is that as you go out further from the city, many more people will not live beside a metro station.

Note that the paper does not analyse the important role that local feeder buses could play in delivering passengers to these metro stations.

2 The area to be served by the continuation of *MetroLink*

2.1 The area served by the proposed continuation of *MetroLink* would lie between the Red and Green Luas lines. This area is shaped roughly like a triangle. The Luas stop in Tallaght is 12.3 kms from the confluence of the two Luas lines near the GPO (walking or by bike) and the Sandyford Luas stop is approximately the same distance from the GPO (11.7 kms). The distance between the Luas stop in Tallaght and the Luas stop in Sandyford is 13.3 kms. Thus, the area between the two Luas lines may be thought of as a rough triangle as follows:

Figure 1: Area served by a continuation of *MetroLink* to South West Dublin



At the base of the triangle, those living near Tallaght or Sandyford would have little need of the proposed metro service. The spotted areas denote places served already by one of the Luas lines. The approximate area served by the continuation of *MetroLink* is coloured blue. Note that this area extends below an imaginary line from Tallaght to Sandyford. The served area would include:

Tymon Heights, Carriglea, Carrigwood, Delaford, Glenvara, Scholarstown, Elkwood, Templeroan, Castlefield Manor, Beverley, Orlagh, Knockcullen, Woodfield, Boden Park, Moyville, Springvale, Dargle Wood, Oldcourt, Woodstown, Old Bawn, Rockbrook, Aylesbury, Seskin View, Cill Cais, Watermeadow, Killinarden, Jobstown, Kiltalown, Ellensborough, Kiltipper, Allenton, Daletree, Ballycullen, Beechdale.

This is not an exhaustive list.

3 Active modes of travel

3.1 Walking and cycling are the most healthy modes of travel and cause least damage to the environment. Following the pandemic, the NTA has advised that commuters should consider using active modes of travel over the following distances:

Table 3.1 NTA: Distances which may be suitable for active modes of travel⁵

Travel mode	1km	2kms	5kms	10kms+
Walking	•	•	•	
Cycling	•	•	•	•

3.2 Cycling in Copenhagen is five times more popular than in Dublin⁶. In Copenhagen, particular attention is paid to ensuring that cycling trips take as little time as possible and that there is ample provision of cycle parking, including beside metro stations⁷. Here is a photo of a metro station, Svanemøllen, which is 6 kms from the centre of Copenhagen.

⁵ *Enabling the City to Return to Work: Interim Mobility Intervention Programme for Dublin City*, NTA, May 2020, page 7.

⁶ European Cycling Federation <https://ecf.com/resources/cycling-facts-and-figures>

⁷ https://use.metropolis.org/system/images/1556/original/Copenhagen_Bicycle_Strategy_2011-2025.pdf

Figure 2: Svanemøllen metro station outside Copenhagen



The photo shows the effective integration of cycling with metro in Copenhagen. People cycle to the metro station, park their bike and complete their journey by metro. They collect the bike on the way home.

4 Commuting times which relate to a hypothetical Metro station at Spawell

4.1 In the following table we show commuting times for a purely hypothetical metro location at Spawell in Templeogue. Both 'Cycle and Ride' and 'Park and Ride' would be available at this station. The assumed destination is the GPO, O'Connell Street, near the intersection of the two Luas lines and the proposed *MetroLink* station at the old Carlton cinema: a distance of 8.7 kms (by bike). According to the NTA, the *MetroLink* journey time from Dublin Airport to the city centre would be 20 minutes for a journey length of 11 kms. It is reasonable to assume (on a *pro rata* basis) that the journey time on the continuation of *MetroLink* from Spawell to the GPO, O'Connell Street would be 15 minutes.

Options shown are car, bus, bike and metro. Departing at 7.50 am, the journey times (per Google Maps) would be:

Table 4.1 Journey Times from Spawell to O'Connell Street, departing at 7.50 am

Transport Mode	Time
Car	Up to 40 mins
Bus	39 mins
Bike	30 mins
Metro	15 mins

As we might expect, cycling is currently the fastest way to the city. However, Spawell is 8.7 kms from the city. Some people living in the general area of Spawell *may* view this cycling commute as being too long. The current alternatives are the car and the bus. Metro, if available, would be twice as quick as the bike.

4.2 Of course, not everyone can live right beside a metro station. Given the dimensions of the area to be served by the new metro (see solid blue area in Figure 1 above), it is unlikely that many people would be more than 5 kms from a hypothetical station. This fits comfortably within the NTA view that distances up to 5 km may be suitable for walking and distances up to 10 kms and more may be suitable for cycling – see Table 3.1 above. In the following paragraphs and tables, the current commuting times (car, bus and bike) are compared to the commuting times that would be available with a metro station in Spawell.

4.3 The NTA is encouraging more people to use the bike to get to work: the target is to treble the number of commuters who cycle into the city⁸. However, the combination of a short cycle to a metro station together with a swift trip by metro would add greatly to the appeal of cycling. Table 4.2 shows commuting times today vs using Cycle and Ride to a metro station at Spawell.

⁸ See footnote 1.

Table 4.2 Current commuting times to the GPO compared with Cycle to Spawell plus Metro

←--Current options--→ ←----Cycle to metro option--→

Home	Distance (kms)	Car	Bus	Bike	Cycle	Time	Time
Location	To O'Connell St				+metro	saving	saving
	(by bike)	(up to)			Total	vs car	vs bus
		Mins.	Mins.	Mins.	Mins.	Mins.	Mins.
Anne Devlin Park	8.5	40	39	30	23	17	16
Ashton Close	9.1	45	41	31	22	23	19
Ballyroan Crescent	8.9	45	45	30	23	22	22
Balrothery Estate	9.9	45	50	33	22	23	28
Bancroft Crescent	10.8	50	53	34	24	26	29
Beechfield Road	6.8	35	30	24	27	8	3
Beverley Avenue	9.8	45	39	33	23	22	16
Boden Park	9.2	45	43	32	25	20	18
Brookwood	9	40	44	31	27	13	17
Butterfield Crescent	7.1	35	35	26	26	9	9
Carriglea Drive	11.1	50	44	36	26	24	18
Carrigwood	10.8	45	43	36	26	19	17
Castlefield Manor	10.4	45	52	35	25	20	27
Coolamber Court	8.4	40	37	30	21	19	16
Dargle Wood	9.3	45	39	31	22	23	17
Delaford Drive	9.4	45	42	32	22	23	20
Elkwood	9.1	45	41	31	23	22	18
Glendown Grove	7.6	40	38	26	21	19	17
Glenvara	10.3	45	42	35	21	24	21
Hermitage Drive	8.6	40	40	30	30	10	10
Idrone Drive	9.2	45	43	32	21	24	22
Keadeen Avenue	8.1	40	38	27	25	15	13
Knockcullen Drive	8.9	40	38	31	22	18	16
Marian Park	7.8	40	44	28	24	16	20
Mountdown Avenue	8.1	35	42	28	23	12	19
Moyville	9.2	40	45	31	27	13	18
Orlagh Downs	10.9	45	49	36	26	19	23
Orwell Park Rise	8.2	40	40	27	19	21	21
Scholarstown Park	9.9	45	49	33	24	21	25
Springvale	9.4	45	53	31	27	18	26
Temple Manor Grove	8.8	40	37	29	23	17	14
Templeogue Wood	8	40	43	27	20	20	23
Templeroan Avenue	9.3	45	43	32	23	22	20

Continued...

Home	Kms from Home to O'Connell Street				Cycle plus metro	Time saving vs car	Time saving vs bus
Location		Car	Bus	Bike			
		Mins	Mins.	Mins	Mins	Mins	Mins
Templeville Drive	7.2	40	36	24	23	17	13
Tymon Ville Park	9.6	45	43	31	25	20	18
Washington Grove	8.4	40	47	29	22	18	25
Whitechurch	10.4	45	54	34	30	15	24
Whitecliff	8.5	40	42	30	27	13	15
Whitehall Road	6	30	28	21	24	6	4
Willbrook Estate	7	35	34	25	26	9	8
Willington Crescent	8.8	40	42	29	20	20	22
Woodfield	10.1	45	48	34	26	19	22
<i>Totals</i>		1765	1775	1275	1006	759	769
Average time saving minutes vs car and bus (42 locations)						18.1	18.3
Average time saving %						43.0%	43.3%

Notes:

- Existing car and bus users would have greatly reduced commuting times, if they switched to Cycle and Ride.
- A particular difficulty with car and bus commutes at present is that journey times vary widely, depending on functioning of traffic lights, traffic accidents, schools open, weather etc.;
- With Cycle and Ride journey times would be predictable.
- The cycling times are not onerous; in the above table, they range from 6 - 15 minutes, which would be attractive to many people.

4.4 In considering a Walk plus metro option, we realise that not everyone can live right beside a metro station. However, Walk plus metro could be an attractive option for many people who live nearby, say within a 30 minute walk from Spawell (approximately 2.5kms). Table 4.3 shows commuting times today vs using Walk plus Metro to a metro station at Spawell.

Table 4.3 Current commuting times to the GPO compared with Walk to Spawell plus Metro

←-Current options-→ ←-Walk to metro option-→

Home	Distance (kms)	Car	Bus	Bike	Walk	Time	Time
Location	To O'Connell St				+metro	saving	saving
	(by bike)	(up to)			Total	vs car	vs bus
		Mins.	Mins.	Mins.	Mins.	Mins.	Mins.
Ashton Close	9.1	45	41	31	39	6	2
Coolamber Court	8.4	40	37	30	31	9	6
Delaford Drive	9.4	45	42	32	37	8	5
Elkwood	9.1	45	41	31	41	4	0
Glendown Grove	7.6	40	38	26	35	5	3
Glenvara	10.3	45	42	35	33	12	9
Idrone Drive	9.2	45	43	32	35	10	8
Knockcullen Drive	8.9	40	38	31	37	3	1
Orwell Park Rise	8.2	40	40	27	27	13	13
Templeogue Wood	8	40	43	27	40	0	3
Templeroan Avenue	9.3	45	43	32	41	4	2
Willington Crescent	8.8	40	42	29	32	8	10
<i>Totals</i>		510	490	363	428	82	62
Average time saving minutes vs car and bus (12 locations)						6.8	5.2
Average time saving %						16.1%	12.7%

Notes:

- While walking is the slowest mode of travel, metro is very fast. The combination of these two modes yields time savings over a relatively wide area for Walk and Ride.
- A particular difficulty with car and bus commutes at present is that journey times vary widely.
- With Walk and Ride journey times would be predictable.
- The walking times in the table range from 12 - 26 minutes, which would be attractive to many people.

4.5 There would be a 'Park and Ride' at Spawell. As an alternative to driving all the way into the city, would a short drive to Spawell plus a metro ride into the city be an attractive option? Table 4.4 shows commuting times today vs Park and Ride to a metro station at Spawell.

Table 4.4 Current commuting times compared with Drive to Spawell plus Metro

←-Current options-→ ←-Drive to metro option-→

Home	Distance (kms)	Car Bus		Bike	Drive +	Time saving		
		(up to)				Metro	vs car	vs bus
		Mins.	Mins.				Mins.	Mins.
Anne Devlin Park	8.5	40	39	30	21	19	18	
Ashton Close	9.1	45	41	31	22	23	19	
Ballyroan Crescent	8.9	45	45	30	22	23	23	
Balrothery Estate	9.9	45	50	33	22	23	28	
Bancroft Crescent	10.8	50	53	34	24	26	29	
Beechfield Road	6.8	35	30	24	24	11	6	
Beverley Avenue	9.8	45	39	33	22	23	17	
Boden Park	9.2	45	43	32	23	22	20	
Brookwood	9	40	44	31	24	16	20	
Butterfield Crescent	7.1	35	35	26	22	13	13	
Carriglea Drive	11.1	50	44	36	25	25	19	
Carrigwood	10.8	45	43	36	22	23	21	
Castlefield Manor	10.4	45	52	35	22	23	30	
Coolamber Court	8.4	40	37	30	19	21	18	
Dargle Wood	9.3	45	39	31	22	23	17	
Delaford Drive	9.4	45	42	32	21	24	21	
Elkwood	9.1	45	41	31	23	22	18	
Glendown Grove	7.6	40	38	26	20	20	18	
Glenvara	10.3	45	42	35	22	23	20	
Hermitage Drive	8.6	40	40	30	27	13	13	
Idrone Drive	9.2	45	43	32	24	21	19	
Keadeen Avenue	8.1	40	38	27	23	17	15	
Knockcullen Drive	8.9	40	38	31	21	19	17	
Marian Park	7.8	40	44	28	23	17	21	
Mountdown Avenue	8.1	35	42	28	20	15	22	
Moyville	9.2	40	45	31	25	15	20	
Orlagh Downs	10.9	45	49	36	24	21	25	
Orwell Park Rise	8.2	40	40	27	19	21	21	
Scholarstown Park	9.9	45	49	33	23	22	26	
Springvale	9.4	45	53	31	25	20	28	
Temple Manor Grove	8.8	40	37	29	22	18	15	
Templeogue Wood	8	40	43	27	19	21	24	
Templeroan Avenue	9.3	45	43	32	22	23	21	

Continued...

Home	Distance (kms)	Car	Bus	Bike	Drive	Time	Time
Location	To O'Connell St				+metro	saving	saving
	(by bike)	(up to)			Total	vs car	vs bus
		Mins.	Mins.	Mins.	Mins.	Mins.	Mins.
Templeville Drive	7.2	40	36	24	22	18	14
Tymonville Park	9.6	45	43	31	25	20	18
Washington Grove	8.4	40	47	29	22	18	25
Whitechurch	10.4	45	54	34	29	16	25
Whitecliff	8.5	40	42	30	29	11	13
Whitehall Road	6	30	28	21	21	9	7
Willbrook Estate	7	35	34	25	23	12	11
Willington Crescent	8.8	40	42	29	19	21	23
Woodfield	10.1	45	48	34	33	12	15
<i>Totals</i>		1765	1775	1275	973	792	802
Average time saving minutes vs car and bus (42 locations)						19.1	19.4
Average time saving %						45.5%	45.8%

Notes:

- The very significant time savings that would arise over a wide area for Park and Ride.
- A particular difficulty with car and bus commutes at present is that journey times vary widely.
- With Park and Ride journey times would be more predictable.
- The driving times range from 4 - 18 minutes, which would be more attractive to many people rather than driving all the way into the city. Less driving time means less congestion and less pollution.

5 Commuting times which relate to a hypothetical Metro station at Dodder Valley Park

5.1 In the following table we show commuting times for a purely hypothetical metro station to be located at Dodder Valley Park (beside Dodder Avenue) in Firhouse. Both 'Cycle and Ride' and 'Park and Ride' would be available at this station. The assumed destination is the GPO, O'Connell Street, near the intersection of the two Luas lines: a distance of 11.1 kms (by bike). According to the NTA, the *MetroLink* journey time from Dublin Airport to the city centre would be 20 minutes for a journey length of 11 kms. It is reasonable to assume that the journey time on the continuation of *MetroLink* from Dodder Valley Park to the GPO, O'Connell Street would also be 20 minutes.

Options shown are car, bus, bike and metro. Departing at 7.50 am, the journey times (per Google Maps) would be:

Table 5.1 Journey Times from Dodder Valley Park to O’Connell Street, departing at 7.50 am

Transport Mode	Time
Car	Up to 45 mins
Bus	52 mins
Bike	36 mins
Metro	20 mins

5.2 We now consider the options for those who live in the general Firhouse area. As we might expect, cycling is the fastest way to the city at present. However, Dodder Valley Park is 11 kms from the city; accordingly, people living in the general Firhouse area would face, in the view of many, a long cycling commute. The alternatives are the car and the bus.

5.3 Table 5.2 shows commuting times today vs using Cycle and Ride to a metro station at Dodder Valley Park.

Table 5.2 Current commuting times compared with Cycle to Dodder Valley Park plus Metro

←-----Current options-----→ ←Cycle to metro option→

Home Location	Distance (kms) To O'Connell St (by bike)	Car (up to) Mins.	Bus Mins.	Bike Mins.	Cycle +metro Total Mins.	Time saving vs car Mins.	Time saving vs bus Mins.
Allenton Drive	12.3	45	49	40	26	19	23
Aylesbury	12.7	50	55	41	26	24	29
Ballycullen Drive	11.4	45	47	39	29	16	18
Beechdale Place	11.7	45	52	39	28	17	24
Cill Cais, Old Bawn	13.4	50	56	43	28	22	28
Daletree Avenue	11.8	45	48	38	26	19	22
Dodderbrook	13.1	50	58	42	27	23	31
Ellensborough Drive	13.4	50	61	42	28	22	33
Jobstown	14.3	45	57	44	36	9	21
Killinardan Heights	14.4	50	50	44	31	19	19
Kiltalown Way	14.1	50	55	43	34	16	21
Kiltipper	13.7	50	65	43	29	21	36
Old Bawn	12.7	45	51	41	26	19	25
Oldcourt	13.4	45	61	43	29	16	32
Parkwood	12	50	57	39	25	25	32
Prospect	9.8	40	43	32	36	4	7
Rockbrook	11.8	45	64	37	39	6	25
Seskin View	11.7	45	48	37	26	19	22
Stocking Wood	10.9	45	47	38	32	13	15
Watermeadow Park	12.7	45	54	41	27	18	27
Woodstown Heights	11.4	45	48	39	30	15	18
<i>Totals</i>		980	1126	845	618	362	508
Average time saving minutes vs car and bus (21 locations)						17.2	24.2
Average time saving %						36.9%	45.1%

Notes:

- The very significant time savings that would arise over a wide area for Cycle and Ride.
- Existing car and bus users would have greatly reduced commuting times, if they switched to Cycle and Ride.
- A particular difficulty with car and bus commutes at present is that journey times vary widely.
- With Cycle and Ride journey times would be predictable.
- The cycling times range from 6 - 19 minutes, which would be attractive to many people.

5.4 In considering a Walk plus metro option, we realise that not everyone can live right beside a metro station. However, Walk plus metro could be an attractive option for many people who live nearby, say within a 30 minute walk from Dodder Valley Park (approximately 2.5kms). Table 5.3 shows commuting times today vs using Walk plus Metro to a metro station at Dodder Valley Park.

Table 5.3 Current commuting times compared with Walk to Dodder Valley Park plus Metro

←Current options→ ←Walk to metro option→

Home	Kms from				With metro (20 mins)		
Location	Home to	(up to)			plus Walk options		
	O'Connell Street	Car	Bus	Bike	Walk	Time	Time
	(by bike)				+metro	saving	saving
					Total	vs car	vs bus
		Mins.	Mins.	Mins.	Mins.	Mins.	Mins.
		(up to)					
Allenton Drive	12.3	45	49	40	38	7	11
Aylesbury	12.7	50	55	41	42	8	13
Ballycullen Drive	11.4	45	47	39	31	14	16
Daletree Avenue	11.8	45	48	38	37	8	11
Ellensborough Drive	13.4	50	61	42	50	0	11
Old Bawn	12.7	45	51	41	41	4	10
Seskin View	11.7	45	48	37	42	3	6
Watermeadow Park	12.7	45	54	41	45	0	9
<i>Totals</i>		325	366	280	295	30	71
Average time saving minutes vs car and bus						5.5	10.9
Average time saving %						12%	21%

Notes:

- The time savings that would arise over a wide area for Walk and Ride.
- A particular difficulty with car and bus commutes at present is that journey times vary widely.
- With Walk and Ride journey times would be predictable.
- The walking time ranges from 11 - 30 minutes, which could be attractive to many people.

5.5 There would be a 'Park and Ride' at Dodder Valley Park. As an alternative to driving all the way into the city, would a short drive to Dodder Valley Park plus a metro ride into the city be an attractive option? Table 5.4 shows commuting times today vs Park and Ride to a metro station at Dodder Valley Park.

Table 5.4 Current commuting times compared with Drive to Dodder Valley Park plus Metro

←----Current options--→ ←Drive to metro option→

Home	Kms from				With metro (20 mins)		
Location	Home to	(up to)			plus Drive options		
	O'Connell Street	Car	Bus	Bike	Drive	Time	Time
	(by bike)				+metro	saving	saving
					Total	vs car	vs bus
		Mins.	Mins.	Mins.	Mins.	Mins.	Mins.
		(up to)					
Allenton Drive	12.3	45	49	40	24	21	25
Aylesbury	12.7	50	55	41	26	24	29
Ballycullen Drive	11.4	45	47	39	27	18	20
Beechdale Place	11.7	45	52	39	27	18	25
Cill Cais, Old Bawn	13.4	50	56	43	27	23	29
Daletree Avenue	11.8	45	48	38	26	19	22
Dodderbrook	13.1	50	58	42	28	22	30
Ellensborough Drive	13.4	50	61	42	26	24	35
Jobstown	14.3	45	57	44	34	11	23
Killinardan Heights	14.4	50	50	44	29	21	21
Kiltalown Way	14.1	50	55	43	34	16	21
Kiltipper	13.7	50	65	43	28	22	37
Old Bawn	12.7	45	51	41	26	19	25
Oldcourt	13.4	45	61	43	26	19	35
Parkwood	12	50	57	39	25	25	32
Prospect	9.8	40	43	32	32	8	11
Rockbrook	11.8	45	64	37	30	15	34
Seskin View	11.7	45	48	37	26	19	22
Stocking Wood	10.9	45	47	38	29	16	18
Watermeadow Park	12.7	45	54	41	26	19	28
Woodstown Heights	11.4	45	48	39	27	18	21
Totals		980	1126	845	583	397	543
Average time saving minutes vs car and bus (21 locations)						18.9	25.9
Average time saving %						40.5%	48.2%

Notes:

- The very significant time savings that would arise over a wide area for Park and Ride.
- A particular difficulty with car and bus commutes at present is that journey times vary widely.
- With Park and Ride journey times would be more predictable.
- The driving time ranges from 4 - 14 minutes, which would be attractive to many people rather than driving all the way into the city. Less driving time means less congestion and less pollution.

5.6 It might be thought: "Surely driving to a metro station is not to be recommended? Would not this give rise to pollution?" Across 21 locations, the average drive to the Dodder Valley Park metro station would take 8 minutes. Driving all the way into the city would take an average of 47 minutes. Thus, by driving to the metro station rather than driving all the way into the city, there would be a reduction of 83 per cent in driving time...and much less damage to the environment.

6 Connectivity

6.1 Even if one's destination was far from stations on the *MetroLink* line, the continuation of *MetroLink* to the general Firhouse area could provide very important opportunities to use public transport instead of the car. For example,

- At the St Stephens Green *MetroLink* station, you could switch to the Luas Green Line and head towards Sandyford or Cabra (and possibly Finglas?).
- At the Tara Street *MetroLink* station, you could change to the DART and head towards Malahide or Greystones.
- At the *MetroLink* station on O'Connell Street, you could change to the Red Luas Line and head towards St James' Hospital or the IFSC.
- At the Glasnevin *MetroLink* station, you could access the North Western rail line (Sligo/Maynooth) and the South Western commuter line (Newbridge/Hazelhatch)⁹.
- There would be numerous opportunities for bus connections.

In summary, the continuation of *MetroLink* to South West Dublin would provide a powerful means for residents to navigate large areas of the city (and beyond) without using the car.

7 Journey times for long distance car commuters and the M50

7.1 Here we look at the Park and Ride at the Spawell metro station and its potential to take cars off the road from the N81 and the M50. Spawell is located at Junction 11 on the M50 at the intersection with the N81. Currently, over 70,000 vehicles pass by Spawell every day on either the N81 or the M50.

7.2 As before, let us assume a purely hypothetical metro station in the general Spawell area (at the Spawell Complex), adjacent to the N81 and the M50. The metro station would have a 'Cycle and Ride' and a 'Park and Ride'. The distance to O'Connell Street is 8.7 kms. The journey time for metro would be 15 mins. The following table shows the travelling time options to O'Connell Street for car commuters from Spawell at 7.50 am.

⁹ According to the NTA: "Glasnevin is a key station. This is where MetroLink will interchange with Iarnród Éireann where the north-western line from Sligo/Maynooth to Dublin, and the southwestern commuter line from Newbridge/ Hazelhatch to Grand Canal Dock converge at Whitworth Road increasing demand for both MetroLink and Iarnród Éireann services." *METROLINK: Integrated Transport Integrated Life*, NTA, March 2019

Journey Times from Spawell to O'Connell Street by Car vs Metro, departing at 7.50 am

Transport Mode from Spawell	Time to O'Connell St
Car	Up to 40 mins
Metro	15 mins

7.3 The N81 is a National Primary Route, bringing in motorists from areas including Tallaght, Brittas, Hollywood, Blessington, Donard, Baltinglass, Kiltegan, Rathvilly, Tullow, Hacketstown, Tinahely etc.. Many motorists on the N81 would see:

- The huge disparity in journey times to the city centre (car vs metro) and
- The connectivity opportunities, which are listed in paragraph 6.1.

Would not the Spawell Park and Ride be attractive for many of these motorists? Not only would the journey time be much shorter, but it would be much more predictable. Also, for other 'non-N81' long distance motorists approaching the M50, the Park and Ride at Spawell could be an attractive option.

7.3 The original plan for the M50 was that it would enable people from outside Dublin to bypass the city. However, it is increasingly clogged up by motorists from within the M50 using it as a means of navigating within the M50. Would not the Park and Ride at Spawell be attractive for many of these motorists, particularly given its connectivity with DART and Luas as mentioned earlier?

8 Conclusions

8.1 The above analysis examined 63 locations in the outer suburbs of South West Dublin. The analysis shows that the continuation of *MetroLink* to South West Dublin would facilitate considerable time savings for many commuters across these suburbs. Accordingly, patronage of the metro service by commuters from these suburbs is likely to be substantial.

8.2 According to the EU Commission,

“The reliance on private motor vehicles to move people and goods is the main source of growing problems relating to air pollution and congestion. These issues lead to health, accessibility, and quality-of-life concerns for city inhabitants and can negatively impact businesses through increased delays and reduced reliability of the road transport network.

In response to these pressing issues, policy-makers are increasingly looking for ways to develop a more diverse and flexible transport system, and influence behaviours to encourage a shift away from the reliance on private cars. Cycling is increasingly viewed as a key part of a multi-modal and integrated transport system for several reasons:

- *It is a more cost-efficient option compared to other transport modes;*
- *It is a convenient transport mode for the high share of short journeys that dominate urban travel; and*
- *It has multiple co-benefits in terms of health, the environment and city liveability.”¹⁰*

8.3 A metro to South West Dublin would have positive effects on the environment and the health of residents. It would bring benefits to the community, the city and the country. There would be the saving of car energy and bus energy in the transfer to the more efficient new metro. There would be the benefits of less traffic on the roads making it safer for cyclists and pedestrians. There would be an improvement in health as more people would walk or cycle to the stations rather than using their car door to door.

8.4 An early feasibility study is awaited into continuing *MetroLink* to South West Dublin. This was agreed by all three political parties which form the Government.

South West Dublin Metro Group
September 2020

¹⁰ https://ec.europa.eu/transport/themes/urban/cycling/guidance-cycling-projects-eu/cycling-policy-and-background_en