

Site Access Traffic Demands - Newgate Lane East - Comparison of ATC (2021) vs MCC (2019)

2019 MCC compared to Southern November 2021 ATC (8319/8320)

	Northbound		Southbound		Total		Difference
	ATC (2021)	MCC (2019)	ATC (2021)	MCC (2019)	ATC (2021)	MCC (2019)	
0700 - 0800	1631	1353	749	714	2380	2067	87%
0745 - 0845	-	1529	-	836	-	2365	99%
							95%
0800 - 0900	1442	1565	1048	783	2490	2348	94%
0900 - 1000	1270	1352	933	676	2203	2028	92%
1600 - 1700	1115	980	1739	1442	2854	2422	85%
1700 - 1800	935	899	1762	1325	2697	2224	82%

To 0700-0800  
To 0800-0900

AM Peak Hour is 0745-0845  
Compared to 0700-0800 ATC, MCC Peak Flows are 99%  
Compared to 0800-0900 ATC, MCC Peak Flows are 95%

PM Peak Hour is 1600-1700  
Compared to 1600-1700 ATC, MCC Peak is 85%

2019 MCC compared to Northern November 2021 ATC (8863/8864)

	Northbound		Southbound		Total		Difference
	ATC (2021)	MCC (2019)	ATC (2021)	MCC (2019)	ATC (2021)	MCC (2019)	
0700 - 0800	1643	1347	774	713	2417	2060	85%
0745 - 0845	-	1526	-	835	-	2361	98%
							94%
0800 - 0900	1458	1566	1055	781	2513	2347	93%
0900 - 1000	1276	1361	952	691	2228	2052	92%
1600 - 1700	1136	980	1739	1447	2875	2427	84%
1700 - 1800	964	905	1757	1320	2721	2225	82%

To 0700-0800  
To 0800-0900

AM Peak Hour is 0745-0845  
Compared to 0700-0800 ATC, MCC Peak Flows are 98%  
Compared to 0800-0900 ATC, MCC Peak Flows are 94%

PM Peak Hour is 1600-1700  
Compared to 1600-1700 ATC, MCC Peak is 84%

Conclusion

The 2021 ATCs were carried out to confirm design speeds not reference flows. These occurred during the construction period of the Stubbington Bypass where significant roadworks and traffic management was ongoing at Peel Common, likely to influence travel patterns.

In the **AM Peak**, the MCC relates well to the ATC, with differences of 1-6%.  
TEMPRO Growth between 2019 and 2021 is some 2%, meaning the differences are de-minimus ~2-3%  
A Sensitivity Test applying a 5% uplift in mainline flows at the access junction has been applied for robustness

In the **PM Peak**, the MCC is some 15% less than the ATC survey, with applied TEMPRO growth (2019-2021) amounting to 2%.  
A Sensitivity Test of 15% uplift on Mainline Flows has been applied for robustness.

Sense check against 2018 ATC

2019 MCC compared to Pegasus October 2018 ATC (8821/8822) (south of Junction)

	Northbound		Southbound		Total		Difference
	ATC (2018)	MCC (2019)	ATC (2018)	MCC (2019)	ATC (2018)	MCC (2019)	
0700 - 0800	1458	1353	656	714	2114	2067	98%
0745 - 0845	-	1529	-	836	-	2365	112%
							114%
0800 - 0900	1310	1565	759	783	2069	2348	113%
0900 - 1000	1268	1352	781	676	2049	2028	99%
1600 - 1700	1011	980	1597	1442	2608	2422	93%
1700 - 1800	938	899	1656	1325	2594	2224	86%

To 0700-0800  
To 0800-0900

AM Peak Hour is 0745-0845  
Compared to 0700-0800 ATC, MCC Peak Flows are 112%  
Compared to 0800-0900 ATC, MCC Peak Flows are 114%

PM Peak Hour is 1600-1700  
Compared to 1600-1700 ATC, MCC Peak is 93%

HCC / SYSTRA Table

Table 1. MCC and ATC Newgate Lane Data Comparison

PEAK PERIOD AND SURVEY DATA COLLECTION METHOD	NEWGATE LANE NB	NEWGATE LANE SB
MCC - AM	1,367	1,179
MCC - PM	1,293	1,512
<b>MCC Total two-way flow</b>	<b>AM – 2,546</b>	<b>PM – 2,805</b>
ATC - AM	1,643	1,130
ATC - PM	1,128	1,762
<b>ATC Total two-way flow</b>	<b>AM – 2,773 (9% increase on MCC flows)</b>	<b>PM – 2,890 (3% increase on MCC flows)</b>

ATC Analysis uses the summarised peak periods which conflates time periods  
MCC figures unknown

Time	Wed	Thu	Fri	Sat	Sun	Mon	Tue	5-Day	7-Day
00:00	22	32	23	62	81	28	16	24	38
01:00	15	13	17	43	65	9	15	14	25
02:00	20	18	23	30	37	16	20	19	23
03:00	28	23	32	27	27	21	30	27	27
04:00	77	76	69	60	29	59	58	62	71
05:00	339	358	311	126	64	346	339	339	269
06:00	1132	1114	986	281	140	1125	1126	1097	843
07:00	1693	1683	1654	1462	239	1659	1655	1631	1265
08:00	1494	1383	1358	787	405	1448	1525	1442	1200
09:00	1264	1271	1322	1128	852	1262	1292	1270	1150
10:00	1032	1101	1167	1357	1221	1052	998	1070	1133
11:00	970	1038	1154	1456	1300	1020	979	1032	1131
12:00	951	989	1158	1355	1312	995	937	1000	1095
13:00	1076	988	1177	1266	1245	912	1000	1031	1095
14:00	902	855	1140	1058	948	899	805	847	965
15:00	1067	1064	1262	944	765	1020	1048	1092	1024
16:00	1108	1125	1201	806	660	1088	1105	1115	1006
17:00	930	953	986	709	489	870	938	935	839
18:00	733	812	706	520	379	676	723	730	650
19:00	531	515	578	382	327	507	492	525	426
20:00	395	327	313	290	266	283	325	311	301
21:00	247	234	253	218	147	242	215	238	222
22:00	128	120	178	185	107	116	111	131	135
23:00	86	74	111	97	46	43	73	73	73

Time	Wed	Thu	Fri	Sat	Sun	Mon	Tue	5-Day	7-Day
12H,7-19	13220	13332	14285	11858	9815	12831	12810	13296	12593
16H,6-22	15435	15522	16415	13029	10995	14988	14968	15466	14436
18H,6-24	15629	15716	16704	13311	10848	15147	15152	15670	14644
24H,0-24	16130	16236	17179	13659	11151	15666	15660	16174	15097
Am	07:00	07:00	07:00	11:00	11:00	07:00	08:00	-	-
Peak	1693	1683	1654	1456	1300	1659	1525	1643	1567
Pm	16:00	16:00	15:00	12:00	12:00	16:00	16:00	-	-
Peak	1198	1125	1282	1355	1312	1038	1105	1128	1186

Time	Wed	Thu	Fri	Sat	Sun	Mon	Tue	5-Day	7-Day
00:00	61	72	86	134	122	61	75	71	87
01:00	25	34	42	64	68	20	31	30	41
02:00	31	21	26	43	54	12	17	21	29
03:00	17	16	24	28	39	12	22	18	23
04:00	22	33	27	37	17	21	18	24	25
05:00	78	82	78	42	28	77	81	79	67
06:00	197	198	202	89	66	180	187	193	160
07:00	791	781	715	229	148	765	652	749	589
08:00	1648	1655	1601	610	305	1103	1035	1048	880
09:00	952	910	977	864	541	870	954	933	804
10:00	965	954	1081	1057	940	990	914	961	966
11:00	1168	1110	1280	1334	1206	1083	1049	1124	1167
12:00	1187	1138	1454	1459	1354	1115	1136	1206	1263
13:00	1127	1160	1505	1304	1318	1142	1105	1208	1237
14:00	1460	1427	1635	1285	1281	1187	1318	1445	1398
15:00	1657	1656	1661	1340	1222	1618	1589	1640	1537
16:00	1715	1725	1731	1225	1020	1767	1751	1759	1565
17:00	1752	1763	1757	1145	674	1789	1748	1762	1518
18:00	1456	1331	1124	785	557	1262	1331	1301	1121
19:00	747	927	756	557	391	670	727	765	682
20:00	574	603	674	435	375	471	559	578	527
21:00	436	380	438	355	245	327	441	401	373
22:00	340	330	402	285	184	275	323	334	306
23:00	128	188	250	201	95	138	155	168	162

Time	Wed	Thu	Fri	Sat	Sun	Mon	Tue	5-Day	7-Day
12H,7-19	15222	15011	15923	12597	10586	14907	14630	15137	14121
16H,6-22	17170	17119	17983	14033	11643	16555	16594	17072	15962
18H,6-24	17638	17617	18615	14519	11922	16968	17012	17574	16390
24H,0-24	17872	17875	18918	14867	12250	17171	17256	17818	16601
Am	11:00	11:00	11:00	11:00	11:00	08:00	11:00	-	-
Peak	1168	1110	1280	1334	1206	1109	1049	1130	1170
Pm	17:00	17:00	17:00	12:00	12:00	17:00	16:00	-	-
Peak	1752	1763	1757	1459	1354	1789	1751	1762	1661

MCC Recorded Flows - North of junction

Time Period	Northbound	Southbound
0700 - 0800	1347	713
0745 - 0845	1526	835
0800 - 0900	1566	781
0900 - 1000	1361	691
1600 - 1700	980	1447
1700 - 1800	905	1320

MCC Recorded Flows - South of junction

Time Period	Northbound	Southbound
0700 - 0800	1353	714
0745 - 0845	1529	836
0800 - 0900	1565	783
0900 - 1000	1352	676
1600 - 1700	980	1442
1700 - 1800	899	1325

TEMPRO Growth applied in Model

Growth Factors	AM	PM
2019-2021	1.0209	1.0190
	102.1%	101.9%