

Appendix 7.1

Junction Analysis Results

Appendix 7.1

Junction Performance

Shannon Park Roundabout

2014 Base Year	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 North	0.4	29%	9.0	91%	1.7	59%	4.5	82%	3.7	79%
Arm B - N28 East	0.1	6%	0.7	38%	0.9	44%	36.9	106%	2.8	74%
Arm C - R611 South	0.4	27%	4.0	80%	1.7	61%	4.4	81%	1.8	64%

2019 Construction Year, without Development	0600-0700		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 North	0.6	33%	6.4	87%
Arm B - N28 East	0.1	9%	7.0	89%
Arm C - R611 South	0.5	29%	2.5	71%

2019 Construction Year, with Development	0600-0700		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 North	0.9	43%	9.7	91%
Arm B - N28 East	0.2	16%	19.7	99%
Arm C - R611 South	0.6	34%	3.1	76%

2020 Opening Year, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 North	1.0	33%	33.9	99%	3.5	64%	13.4	89%	12.6	88%
Arm B - N28 East	0.2	9%	1.4	41%	1.8	48%	95.4	122%	12.2	89%
Arm C - R611 South	0.8	30%	11.9	87%	3.8	66%	10.8	86%	5.0	72%

2020 Opening Year, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 North	1.1	35%	35.7	99%	3.7	65%	14.0	89%	12.9	88%
Arm B - N28 East	0.2	12%	1.4	42%	2.1	52%	100.2	123%	15.2	92%
Arm C - R611 South	0.9	31%	12.3	88%	4.0	67%	10.9	86%	5.2	73%

2025 Opening Year + 5, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 North	1.1	35%	70.7	106%	4.3	69%	23.5	95%	21.1	94%
Arm B - N28 East	0.2	10%	1.6	44%	2.2	53%	150.2	137%	24.8	99%
Arm C - R611 South	0.9	32%	20.5	94%	4.7	71%	14.8	91%	6.6	78%

2025 Opening Year + 5, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 North	1.2	37%	73.6	106%	4.5	70%	24.7	95%	21.8	94%
Arm B - N28 East	0.3	12%	1.6	45%	2.5	56%	154.6	138%	31.6	102%
Arm C - R611 South	0.9	33%	21.2	94%	5.0	72%	14.9	91%	6.8	78%

2035 Opening Year + 15, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 North	1.3	39%	165.7	118%	6.2	76%	75.8	106%	68.5	105%
Arm B - N28 East	0.2	11%	1.9	49%	3	61%	299.3	159%	70.6	115%
Arm C - R611 South	1.1	35%	66.0	106%	7.3	79%	31.5	99%	11.3	87%

2035 Opening Year + 15, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 North	1.4	41%	169.4	119%	6.6	78%	78.8	107%	70.9	105%
Arm B - N28 East	0.3	13%	1.9	49%	3.5	64%	305.3	160%	82.4	118%
Arm C - R611 South	1.1	36%	68.1	107%	7.8	81%	32.2	99%	11.5	87%

Appendix 7.1

Junction Performance

Raffeen Bridge Junction

2014 Base Year	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B (Raffeen Bridge) - Left Turn to N28	0.0	3%	1.3	56%	0.1	12%	0.2	13%	0.2	13%
Arm B (Raffeen Bridge) - Right Turn to N28	0.0	3%	1.1	50%	0.4	25%	0.5	30%	0.3	24%
Arm C - N28 (from Ringaskiddy) - Right-Turn to Raffeen	0.0	1%	0.3	20%	0.1	12%	2.0	65%	0.4	28%

2019 Construction Year, without Development	0600-0700		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B (Raffeen Bridge) - Left Turn to N28	0.0	4%	0.2	14%
Arm B (Raffeen Bridge) - Right Turn to N28	0.0	4%	0.4	27%
Arm C - N28 (from Ringaskiddy) - Right-Turn to Raffeen	0.0	1%	0.5	31%

2019 Construction Year, with Development	0600-0700		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B (Raffeen Bridge) - Left Turn to N28	0.1	6%	0.2	15%
Arm B (Raffeen Bridge) - Right Turn to N28	0.0	4%	0.4	30%
Arm C - N28 (from Ringaskiddy) - Right-Turn to Raffeen	0.0	2%	0.5	33%

2020 Opening Year, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B (Raffeen Bridge) - Left Turn to N28	0.0	4%	1.9	66%	0.2	13%	0.2	14%	0.2	14%
Arm B (Raffeen Bridge) - Right Turn to N28	0.0	4%	1.5	59%	0.4	28%	0.6	35%	0.4	28%
Arm C - N28 (from Ringaskiddy) - Right-Turn to Raffeen	0.0	1%	0.3	23%	0.2	13%	2.4	71%	0.5	31%

2020 Opening Year, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B (Raffeen Bridge) - Left Turn to N28	0.0	4%	1.9	66%	0.2	13%	0.2	14%	0.2	14%
Arm B (Raffeen Bridge) - Right Turn to N28	0.0	4%	1.6	60%	0.4	28%	0.6	35%	0.4	28%
Arm C - N28 (from Ringaskiddy) - Right-Turn to Raffeen	0.0	1%	0.3	23%	0.2	13%	2.4	71%	0.5	32%

2025 Opening Year + 5, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B (Raffeen Bridge) - Left Turn to N28	0.0	4%	3.1	77%	0.2	14%	0.2	15%	0.2	15%
Arm B (Raffeen Bridge) - Right Turn to N28	0.0	4%	2.5	72%	0.5	30%	0.7	40%	0.4	31%
Arm C - N28 (from Ringaskiddy) - Right-Turn to Raffeen	0.0	1%	0.3	25%	0.2	14%	3.1	76%	0.5	34%

2025 Opening Year + 5, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B (Raffeen Bridge) - Left Turn to N28	0.1	4%	3.3	79%	0.2	41%	0.2	15%	0.2	15%
Arm B (Raffeen Bridge) - Right Turn to N28	0.0	4%	2.6	73%	0.5	31%	0.7	41%	0.4	30%
Arm C - N28 (from Ringaskiddy) - Right-Turn to Raffeen	0.0	1%	0.3	25%	0.2	14%	3.1	76%	0.5	34%

2035 Opening Year + 15, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B (Raffeen Bridge) - Left Turn to N28	0.1	5%	16.9	107%	0.2	16%	0.2	18%	0.2	18%
Arm B (Raffeen Bridge) - Right Turn to N28	0.0	4%	10.7	104%	0.6	35%	1.1	51%	0.6	37%
Arm C - N28 (from Ringaskiddy) - Right-Turn to Raffeen	0.0	1%	0.4	30%	0.2	16%	5.4	86%	0.6	38%

2035 Opening Year + 15, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B (Raffeen Bridge) - Left Turn to N28	0.1	5%	17.7	108%	0.2	16%	0.2	18%	0.2	18%
Arm B (Raffeen Bridge) - Right Turn to N28	0.0	5%	11.1	105%	0.6	35%	1.1	52%	0.6	37%
Arm C - N28 (from Ringaskiddy) - Right-Turn to Raffeen	0.0	1%	0.4	30%	0.2	16%	5.5	86%	0.6	39%

Appendix 7.1

Junction Performance

Shanbally Roundabout & Adjacent T-Junction

2014 Base Year	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to Ringaskiddy	0.1	5%	0.3	21%	0.5	29%	19.3	99%	1.3	56%
Arm B - Marian Terrace	0	2%	0.3	20%	0.2	16%	1.4	60%	0.4	26%
Arm C - N28 to Cork	0.7	39%	8.2	89%	0.4	23%	0.2	13%	0.3	25%
Arm D - Raffeen Terrace	0.0	3%	21.0	103%	0.1	5%	0.0	4%	0.1	6%

2019 Construction Year, without Development	0600-0700		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to Ringaskiddy	0.2	9%	1.9	64%
Arm B - Marian Terrace	0	2%	0.4	29%
Arm C - N28 to Cork	0.9	44%	0.5	29%
Arm D - Raffeen Terrace	0.0	3%	0.1	7%

2019 Construction Year, with Development	0600-0700		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to Ringaskiddy	0.3	19%	3.3	76%
Arm B - Marian Terrace	0	3%	0.5	32%
Arm C - N28 to Cork	1.9	62%	0.6	36%
Arm D - Raffeen Terrace	0.1	5%	0.1	8%

2020 Opening Year, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to Ringaskiddy	0.2	9%	0.5	22%	0.9	31%	48.2	105%	3.4	64%
Arm B - Marian Terrace	0	2%	0.5	21%	0.4	17%	3.3	65%	0.8	29%
Arm C - N28 to Cork	1.5	45%	22.9	95%	0.6	25%	0.3	14%	0.8	29%
Arm D - Raffeen Terrace	0.0	3%	42.9	115%	0.1	5%	0.0	4%	0.1	7%

2020 Opening Year, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to Ringaskiddy	0.3	13%	0.6	23%	1	35%	51.7	106%	3.9	67%
Arm B - Marian Terrace	0	3%	0.5	22%	0.4	18%	3.4	65%	0.8	30%
Arm C - N28 to Cork	1.8	48%	24.3	96%	0.6	26%	0.3	15%	0.8	30%
Arm D - Raffeen Terrace	0.0	3%	44.0	115%	0.1	5%	0.0	4%	0.1	7%

2025 Opening Year + 5, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to Ringaskiddy	0.2	10%	0.6	24%	0.9	33%	78.4	1%	4.1	69%
Arm B - Marian Terrace	0	3%	0.5	23%	0.4	19%	4.1	70%	0.9	32%
Arm C - N28 to Cork	1.7	47%	42.2	102%	0.6	26%	0.3	15%	0.9	31%
Arm D - Raffeen Terrace	0.0	3%	72.4	128%	0.1	6%	0.0	4%	0.1	8%

2025 Opening Year + 5, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to Ringaskiddy	0.3	13%	0.6	25%	1.1	37%	83.4	113%	4.7	72%
Arm B - Marian Terrace	0	3%	0.5	23%	0.4	19%	4.2	70%	1	33%
Arm C - N28 to Cork	2	51%	45.1	103%	0.7	28%	0.3	16%	0.9	32%
Arm D - Raffeen Terrace	0.0	3%	73.6	129%	0.1	6%	0.0	5%	0.1	8%

2035 Opening Year + 15, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to Ringaskiddy	0.2	10%	0.7	26%	1.1	36%	151.5	125%	5.9	76%
Arm B - Marian Terrace	0	3%	0.6	26%	0.5	21%	6	78%	1.2	38%
Arm C - N28 to Cork	2.1	52%	102.7	113%	0.7	28%	0.4	16%	1	34%
Arm D - Raffeen Terrace	0.0	4%	147.7	156%	0.1	6%	0.1	6%	0.1	9%

2035 Opening Year + 15, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to Ringaskiddy	0.3	14%	0.7	27%	1.3	40%	158.6	126%	6.9	79%
Arm B - Marian Terrace	0	3%	0.6	26%	0.5	22%	6	78%	1.2	39%
Arm C - N28 to Cork	2.4	55%	106.6	114%	0.8	30%	0.4	17%	1	35%
Arm D - Raffeen Terrace	0.0	4%	149.9	157%	0.1	7%	0.1	6%	0.1	9%

Appendix 7.1

Junction Performance

Barnahely T-Junction

2014 Base Year	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - R613 Barnahely Road (Left-Turn Out)	0	1%	0.1	9%	0.1	10%	0.7	41%	0.2	20%
Arm B - R613 Barnahely Road (Right-Turn Out)	0.1	6%	0.6	37%	0.1	10%	0.1	11%	0.1	13%
Arm C - N28 to Cork (Right turn to R613)	0.1	10%	0.5	32%	0.1	10%	0.1	5%	0.1	8%

2019 Construction Year, without Development	0600-0700		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - R613 Barnahely Road (Left-Turn Out)	0	2%	0.3	22%
Arm B - R613 Barnahely Road (Right-Turn Out)	0.1	6%	0.2	14%
Arm C - N28 to Cork (Right turn to R613)	0.1	11%	0.1	9%

2019 Construction Year, with Development	0600-0700		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - R613 Barnahely Road (Left-Turn Out)	0	2%	0.3	23%
Arm B - R613 Barnahely Road (Right-Turn Out)	0.1	13%	0.2	18%
Arm C - N28 to Cork (Right turn to R613)	0.1	11%	0.1	9%

2020 Opening Year, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - R613 Barnahely Road (Left-Turn Out)	0	2%	0.1	10%	0.2	10%	0.8	45%	0.3	22%
Arm B - R613 Barnahely Road (Right-Turn Out)	0.1	6%	0.7	41%	0.1	11%	0.2	13%	0.2	15%
Arm C - N28 to Cork (Right turn to R613)	0.1	11%	0.6	35%	0.2	11%	0.1	6%	0.1	9%

2020 Opening Year, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - R613 Barnahely Road (Left-Turn Out)	0	2%	0.1	11%	0.2	10%	0.9	45%	0.3	22%
Arm B - R613 Barnahely Road (Right-Turn Out)	0.1	7%	0.7	42%	0.1	11%	0.2	13%	0.2	15%
Arm C - N28 to Cork (Right turn to R613)	0.1	11%	0.6	35%	0.2	11%	0.1	6%	0.1	9%

2025 Opening Year + 5, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - R613 Barnahely Road (Left-Turn Out)	0	2%	0.1	12%	0.2	11%	1	48%	0.3	24%
Arm B - R613 Barnahely Road (Right-Turn Out)	0.1	7%	0.8	46%	0.1	12%	0.2	14%	0.2	16%
Arm C - N28 to Cork (Right turn to R613)	0.1	12%	0.6	37%	0.2	11%	0.1	6%	0.1	10%

2025 Opening Year + 5, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - R613 Barnahely Road (Left-Turn Out)	0	2%	0.1	12%	0.2	11%	1	49%	0.3	24%
Arm B - R613 Barnahely Road (Right-Turn Out)	0.1	8%	0.9	46%	0.1	12%	0.2	14%	0.2	16%
Arm C - N28 to Cork (Right turn to R613)	0.1	12%	0.6	37%	0.2	11%	0.1	6%	0.1	10%

2025 Opening Year + 15, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - R613 Barnahely Road (Left-Turn Out)	0	2%	0.2	14%	0.2	12%	1.3	56%	0.4	27%
Arm B - R613 Barnahely Road (Right-Turn Out)	0.1	8%	1.2	55%	0.2	13%	0.2	17%	0.2	18%
Arm C - N28 to Cork (Right turn to R613)	0.2	13%	0.7	41%	0.2	12%	0.1	7%	0.1	11%

2025 Opening Year + 15, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - R613 Barnahely Road (Left-Turn Out)	0	2%	0.2	14%	0.2	12%	1.3	56%	0.4	27%
Arm B - R613 Barnahely Road (Right-Turn Out)	0.1	9%	1.2	55%	0.2	14%	0.2	18%	0.2	19%
Arm C - N28 to Cork (Right turn to R613)	0.2	13%	0.7	42%	0.2	13%	0.1	7%	0.1	11%

Appendix 7.1

Junction Performance

Ferry Port Access Junction

2014 Base Year	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to/from Ringaskiddy (Right-Turn to Port)	0.0	0%	0.0	0%	0.0	0%	0.0	0%	0.0	0%
Arm B - Loughbeg Road (Left-Turn)	0.0	2%	0.0	4%	0.1	6%	0.6	39%	0.5	31%
Arm B - Loughbeg Road (Right-Turn)	0.0	0%	0.0	0%	0.0	0%	0.0	0%	0.0	0%
Arm C - N28 to/from Cork (Right-Turn to Loughbeg Road)	0.5	32%	1.7	64%	0.1	6%	0.0	3%	0.3	23%
Arm D - Ferry Port (Left-Turn)	0.0	0%	0.0	0%	0.0	0%	0.0	0%	0.0	0%
Arm D - Ferry Port (Right-Turn)	0.0	0%	0.1	3%	0.0	2%	0.0	3%	0.0	2%

2019 Construction Year, without Development	0600-0700		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to/from Ringaskiddy (Right-Turn to Port)	0.0	0%	0.0	0%
Arm B - Loughbeg Road (Left-Turn)	0.0	3%	0.5	33%
Arm B - Loughbeg Road (Right-Turn)	0.0	0%	0.0	0%
Arm C - N28 to/from Cork (Right-Turn to Loughbeg Road)	0.5	34%	0.3	25%
Arm D - Ferry Port (Left-Turn)	0.0	0%	0.0	0%
Arm D - Ferry Port (Right-Turn)	0.2	8%	0.2	11%

2019 Construction Year, with Development	0600-0700		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to/from Ringaskiddy (Right-Turn to Port)	0.0	0%	0.0	0%
Arm B - Loughbeg Road (Left-Turn)	0.0	3%	0.6	34%
Arm B - Loughbeg Road (Right-Turn)	0.0	0%	0.0	0%
Arm C - N28 to/from Cork (Right-Turn to Loughbeg Road)	0.5	35%	0.4	26%
Arm D - Ferry Port (Left-Turn)	0.0	0%	0.0	0%
Arm D - Ferry Port (Right-Turn)	0.2	10%	0.1	12%

2020 Opening Year, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to/from Ringaskiddy (Right-Turn to Port)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm B - Loughbeg Road (Left-Turn)	0	3%	0	5%	0.1	7%	0.7	42%	0.5	33%
Arm B - Loughbeg Road (Right-Turn)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm C - N28 to/from Cork (Right-Turn to Loughbeg Road)	0.5	34%	2.2	69%	0.1	6%	0	3%	0.3	25%
Arm D - Ferry Port (Left-Turn)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm D - Ferry Port (Right-Turn)	0.2	8%	0.1	4%	0	2%	0	3%	0.2	11%

2020 Opening Year, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to/from Ringaskiddy (Right-Turn to Port)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm B - Loughbeg Road (Left-Turn)	0	3%	0	5%	0.1	7%	0.7	42%	0.5	34%
Arm B - Loughbeg Road (Right-Turn)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm C - N28 to/from Cork (Right-Turn to Loughbeg Road)	0.5	35%	2.2	69%	0.1	6%	0	3%	0.3	25%
Arm D - Ferry Port (Left-Turn)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm D - Ferry Port (Right-Turn)	0.2	9%	0.1	4%	0	2%	0	3%	0.2	11%

2025 Opening Year + 5, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to/from Ringaskiddy (Right-Turn to Port)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm B - Loughbeg Road (Left-Turn)	0	3%	0.1	5%	0.1	7%	0.8	45%	0.6	36%
Arm B - Loughbeg Road (Right-Turn)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm C - N28 to/from Cork (Right-Turn to Loughbeg Road)	0.6	36%	2.7	74%	0.1	6%	0	3%	0.4	27%
Arm D - Ferry Port (Left-Turn)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm D - Ferry Port (Right-Turn)	0.2	9%	0.1	4%	0	3%	0	3%	0.2	11%

2025 Opening Year + 5, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to/from Ringaskiddy (Right-Turn to Port)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm B - Loughbeg Road (Left-Turn)	0	3%	0.1	5%	0.1	8%	0.8	45%	0.6	36%
Arm B - Loughbeg Road (Right-Turn)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm C - N28 to/from Cork (Right-Turn to Loughbeg Road)	0.6	37%	2.7	74%	0.1	7%	0	3%	0.4	27%
Arm D - Ferry Port (Left-Turn)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm D - Ferry Port (Right-Turn)	0.2	9%	0.1	4%	0	3%	0	3%	0.2	11%

2035 Opening Year + 15, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to/from Ringaskiddy (Right-Turn to Port)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm B - Loughbeg Road (Left-Turn)	0	3%	0.1	6%	0.1	8%	1	51%	0.7	40%
Arm B - Loughbeg Road (Right-Turn)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm C - N28 to/from Cork (Right-Turn to Loughbeg Road)	0.7	41%	4.3	82%	0.1	7%	0	4%	0.4	30%
Arm D - Ferry Port (Left-Turn)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm D - Ferry Port (Right-Turn)	0.2	9%	0.1	0%	0	3%	0.1	4%	0.2	12%

2035 Opening Year + 15, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm A - N28 to/from Ringaskiddy (Right-Turn to Port)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm B - Loughbeg Road (Left-Turn)	0	3%	0.1	6%	0.1	8%	1	51%	0.7	40%
Arm B - Loughbeg Road (Right-Turn)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm C - N28 to/from Cork (Right-Turn to Loughbeg Road)	0.7	41%	4.3	82%	0.1	7%	0	4%	0.4	30%
Arm D - Ferry Port (Left-Turn)	0	0%	0	0%	0	0%	0	0%	0	0%
Arm D - Ferry Port (Right-Turn)	0.2	9%	0.1	0%	0	3%	0.1	4%	0.2	12%

Appendix 7.1

Junction Performance

Resource Recovery Centre Site Access

Note – In all ‘without scenarios’ the results are zero because the junction is not in place

2019 Construction Year, without Development	0600-0700		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - Indaver Entrance	0.0	0%	0.0	0%
Arm C - N28 to/from Ringaskiddy (Right-Turn to Indaver)	0.0	0%	0.0	0%

2019 Construction Year, with Development	0600-0700		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - Indaver Entrance	0.3	15%	0.5	19%
Arm C - N28 to/from Ringaskiddy (Right-Turn to Indaver)	1.5	43%	0.4	17%

2020 Opening Year, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - Indaver Entrance	0.0	0%	0.0	0%	0.0	0%	0.0	0%	0.0	0%
Arm C - N28 to/from Ringaskiddy (Right-Turn to Indaver)	0.0	0%	0.0	0%	0.0	0%	0.0	0%	0.0	0%

2020 Opening Year, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - Indaver Entrance	0.1	5%	0.0	1%	0.1	6%	0.0	1%	0.1	5%
Arm C - N28 to/from Ringaskiddy (Right-Turn to Indaver)	0.1	8%	0.0	1%	0.0	3%	0.0	2%	0.0	1%

2025 Opening Year +5, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - Indaver Entrance	0.0	0%	0.0	0%	0.0	0%	0.0	0%	0.0	0%
Arm C - N28 to/from Ringaskiddy (Right-Turn to Indaver)	0.0	0%	0.0	0%	0.0	0%	0.0	0%	0.0	0%

2025 Opening Year +5, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - Indaver Entrance	0.1	5%	0.00	1%	0.1	6%	0.00	1%	0.1	5%
Arm C - N28 to/from Ringaskiddy (Right-Turn to Indaver)	0.1	8%	0.0	1%	0.00	3%	0.00	2%	0.00	1%

2035 Opening Year +15, without Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - Indaver Entrance	0.0	0%	0.0	0%	0.0	0%	0.0	0%	0.0	0%
Arm C - N28 to/from Ringaskiddy (Right-Turn to Indaver)	0.0	0%	0.0	0%	0.0	0%	0.0	0%	0.0	0%

2035 Opening Year +15, with Development	0600-0700		0730-0830		1400-1500		1630-1730		1800-1900	
<i>Parameter</i>	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)	Queue (PCU)	RFC (%)
Arm B - Indaver Entrance	0.1	5%	0.0	1%	0.1	6%	0.0	1%	0.1	5%
Arm C - N28 to/from Ringaskiddy (Right-Turn to Indaver)	0.1	8%	0.0	1%	0.0	3%	0.0	2%	0.0	1%