

**Table 1**  
**Weighting Factors**

Value	Policy Range	Value
5.95m	Less than or equal to 7.3m	1.00
30 mph	A 30mph Speed Limit	1.00
0	Pedestrian accidents within last 3 years	0.10
<b>Policy Total</b>		2.10
Average value of difficulty to cross (Q)		1.05

**Weighting Factors Justification (taken from HCC TM6 Guidance)**

**Speed**

An assessment of vehicle speed shall be based on the speed limit in place as follows:

30 mph = 1.0  
 40 mph = 1.5  
 50 mph = 2.0

Controlled crossings will not be installed on roads with speed limits in excess of 50 mph (30 mph for zebra crossings).

**Width**

The carriageway width (excluding any islands) shall be measured and a figure obtained as follows:

Less than or equal to 7.3 metres = 1.00  
 Greater than 7.4 metres and less than 10.2 metres = 1.50  
 Greater than 10.3 metres and less than 14.9 metres = 1.75  
 Greater than 15 metres = 2.00

(c) Injury accidents involving pedestrians

$$A = \frac{1+N}{10}$$

Where N = the number of pedestrian injury accidents in last three years

**Assumptions**

Vehicle trip rates used from TA - distributed 70% south from site access  
 Population data taken for local ward which includes site (see image in tab)  
 2016 traffic data used to be consistent with LinSig model.  
 Traffic growth rates consistent with modelling in TA

**Pedestrian / Cyclist Flows - i-Transport Case**  
 Predicted pedestrian flows taken from flow profile in 'Pedestrian Demand - Assignment Centre Site' spreadsheet (Appendix O of TA). Cyclist trips taken from Appendix O and distributed on a cyclist trip rate profile obtained from TRICS.

**Pedestrian / Cyclist Flows - Sensitivity Test - FBC Case**  
 Predicted pedestrian flows taken from FBC Rebuttal in 2019 Appeal. Using the profile set out for the bridge in SOC, proportions have been taken and applied to all DR movements  
 Downend Road subject to 30mph speed limit, changing to 40mph north of bridge - Scheme includes relocation of speed limit to the north of the scheme

**5 Year Accident Analysis (Data only requires last 3 years)**



Accident ID	Location	Date	Description	Severity
459666	Down End Road Railway Bridge	04/05/2016	VEH 1 (CAR) TRAVELLING SW ALONG DOWNEND ROAD VEERED ONTO THE WRONG SIDE OF THE ROAD WHEN TRAVELLING OVER THE RAILWAY BRIDGE AND COLLIDED WITH ONCOMING VEH 2 (CAR).	Serious
459786	Down End Road	11/07/2018	VEH1 (CAR) TRAVELLING SW ALONG DOWNEND ROAD WHEN DRIVER LOSES CONTROL OF THE VEH, POSSIBLY BY STRIKING THE NEARSIDEVERGE. VEH1 SLIDES AND ROTATES CLOCKWISE AND COLLIDES WITH A TREE.	Serious

The fatal accident which occurred at Downend Road Railway Bridge on Thursday 25 June 2020 (which due to the date was not included in the accident report) did not involve any pedestrians.

**Table 2**  
**i-Transport Case**

Hour	Ped&Cyclist Count	Weighting Factor	Pm
0700-0800	9	1.05	9.15
0800-0900	19	1.05	19.96
0900-1000	11	1.05	11.05
1000-1100	8	1.05	8.73
1100-1200	8	1.05	8.51
1200-1300	9	1.05	9.15
1300-1400	9	1.05	9.42
1400-1500	11	1.05	11.84
1500-1600	20	1.05	20.67
1600-1700	15	1.05	15.85
1700-1800	15	1.05	15.55
1800-1900	13	1.05	13.17

**Table 3**  
**Sensitivity Test - FBC Case**

Hour	Ped&Cyclist Count	Weighting Factor	Pm
0700-0800	10	1.05	10.84
0800-0900	94	1.05	99.05
0900-1000	13	1.05	14.04
1000-1100	10	1.05	10.99
1100-1200	10	1.05	10.80
1200-1300	11	1.05	11.56
1300-1400	11	1.05	11.89
1400-1500	14	1.05	15.05
1500-1600	72	1.05	75.34
1600-1700	42	1.05	44.60
1700-1800	19	1.05	19.51
1800-1900	16	1.05	16.51

**Table 4**  
**Two-Way Traffic Flows**

Hour	Observed Flows
0700-0800	786
0800-0900	786
0900-1000	503
1000-1100	466
1100-1200	466
1200-1300	498
1300-1400	487
1400-1500	524
1500-1600	618
1600-1700	686
1700-1800	696
1800-1900	526

**Table 5**  
**i-Transport Ped & Cyclist Flow Profile**

Hour	Pm	V2	PmV2	10^8
0700-0800	9	617523	5650612	0.06
0800-0900	20	617298	12318834	0.12 *
0900-1000	11	252558	2791777	0.03
1000-1100	9	216773	1891955	0.02
1100-1200	9	217247	1849807	0.02
1200-1300	9	248145	2270635	0.02
1300-1400	9	237343	2236891	0.02
1400-1500	12	274537	3249983	0.03
1500-1600	21	382516	7905040	0.08 *
1600-1700	16	470296	7453618	0.07 *
1700-1800	16	484287	7531677	0.08 *
1800-1900	13	276448	3641957	0.04

- >1.0 crossing considered to be justified
- 0.5-1.0 crossing would be added to a secondary list
- 0.2-0.5 controlled crossing not normally recommended
- <0.2 crossing facility not justified

**i-Transport Case**

**Average PMV2** 0.09

**Table 6**  
**Sensitivity Test - FBC Ped & Cyclist Flow Profile**

Hour	Pm	V2	PmV2	10^8
0700-0800	11	617523	6696998	0.07
0800-0900	99	617298	61142921	0.61 *
0900-1000	14	252558	3546107	0.04
1000-1100	11	216773	2382937	0.02
1100-1200	11	217247	2347271	0.02
1200-1300	12	248145	2869731	0.03
1300-1400	12	237343	2821722	0.03
1400-1500	15	274537	4131459	0.04
1500-1600	75	382516	28817265	0.29 *
1600-1700	45	470296	20976440	0.21 *
1700-1800	20	484287	9448226	0.09 *
1800-1900	17	276448	4563972	0.05

**Sensitivity Test - FBC Case**

**Average PMV2** 0.30

**Crossing Justification Extract (Pv2 Guidance / HCC TM6 Policy)**

- (a) Sites exceeding  $1.0 \times 10^8$   
 Where the revised value of  $P_m V^2$  equals or exceeds  $1 \times 10^8$ , then a crossing is considered to be justified, and subject to physical constraints on site, be added to a primary list for consideration as part of the works programme.
- (b) Sites between  $P_m V^2$  0.5 and  $1.0 \times 10^8$   
 Where this value is between 0.5 and  $1.0 \times 10^8$ , then the crossing would be added to a secondary list for review and monitoring as part of a forward programme.
- As under the previous policy, dual carriageway sites will require double the level of justification, i.e.  $P_m V^2$  to equal or exceed  $2.0 \times 10^8$  for consideration on the primary list, and  $1.0 \times 10^8$  for adding to the secondary list.
- (c) Sites between 0.2 and  $0.5 \times 10^8$   
 Where the value of  $P_m V^2$  is between 0.2 and  $0.5 \times 10^8$ , then a controlled crossing would not normally be recommended, and alternatives such as a pedestrian refuge or zebra crossing should be considered.
- (d) Sites below  $0.2 \times 10^8$   
 Where the value of  $P_m V^2$  is below  $0.2 \times 10^8$ , then a crossing facility would not normally be justified, but the site may be reviewed on its merits with regard to local and/or special needs and may be considered subject to funding.

**Vehicle Traffic Generation**

**Development Vehicle Trip Rates**

**Table 7**

Time	Arrivals	Departures	Two-Way
0700-0800	0.076	0.270	0.346
0800-0900	0.155	0.376	0.531
0900-1000	0.163	0.204	0.367
1000-1100	0.145	0.178	0.323
1100-1200	0.177	0.178	0.355
1200-1300	0.179	0.170	0.349
1300-1400	0.180	0.167	0.347
1400-1500	0.186	0.200	0.386
1500-1600	0.266	0.198	0.464
1600-1700	0.281	0.177	0.458
1700-1800	0.370	0.214	0.584
1800-1900	0.248	0.201	0.449

Trip Rates presented within Transport Assessment (ITB12212-053b)

**Total Development Traffic (350 Dwellings)**

**Table 8**

Time	Arrivals	Departures	Two-Way
0700-0800	27	95	121
0800-0900	54	132	186
0900-1000	57	71	128
1000-1100	51	62	113
1100-1200	62	62	124
1200-1300	63	60	122
1300-1400	63	58	121
1400-1500	65	70	135
1500-1600	93	69	162
1600-1700	98	62	160
1700-1800	130	75	204
1800-1900	87	70	157

Number of Proposed Dwellings  
**350**

**DE Road - Development Trips Over Railway Bridge**

**Table 9**

Time	Arrivals	Departures	Two-Way
0700-0800	19	66	85
0800-0900	38	92	130
0900-1000	40	50	90
1000-1100	36	44	79
1100-1200	43	44	87
1200-1300	44	42	86
1300-1400	44	41	85
1400-1500	46	49	95
1500-1600	65	49	114
1600-1700	69	43	112
1700-1800	91	52	143
1800-1900	61	49	110

Proportion of development trips which route south from the proposed site access over the bridge  
**70%**

**Observed and Future Traffic Flows**

**2016 Observed Traffic Flows**

**Table 10**

Time	Two-Way
0700-0800	663
0800-0900	620
0900-1000	394
1000-1100	369
1100-1200	362
1200-1300	394
1300-1400	384
1400-1500	410
1500-1600	482
1600-1700	553
1700-1800	533
1800-1900	397

**2026 Traffic Flows**

**Table 11**

Time	Two-Way
0700-0800	701
0800-0900	656
0900-1000	413
1000-1100	386
1100-1200	379
1200-1300	413
1300-1400	402
1400-1500	429
1500-1600	505
1600-1700	574
1700-1800	553
1800-1900	416

**2026 Traffic Flows + Development**

**Table 13**

Time	Two-Way
0700-0800	786
0800-0900	786
0900-1000	503
1000-1100	466
1100-1200	466
1200-1300	498
1300-1400	487
1400-1500	524
1500-1600	618
1600-1700	686
1700-1800	696
1800-1900	526

**Tempo Growth Rates**

**Table 12**

2016-2026	
AM	1.0574
PM	1.0372
Combined	1.0473

*AM Growth Rate Applied 0700 - 0800*

*PM Growth Rate Applied 1600-1800*

*Combined Rate Applied to non-peak periods*

**Population Data - Portchester West**

**QS103EW - Age by single year**

ONS Crown Copyright Reserved [from Nomis on 18 December 2020]

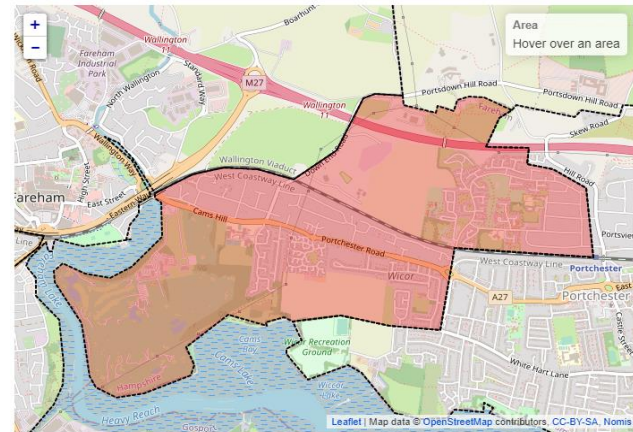
population All usual residents  
 units Persons  
 area type 2011 wards  
 area name E05004525 : Portchester West  
 rural urban Total

Age	2011	Age	2011	Age	2011	Age	2011
All categories: Age	6,907	Age 31	69	Age 63	130	Age 95	7
Age under 1	60	Age 32	77	Age 64	133	Age 96	4
Age 1	45	Age 33	66	Age 65	82	Age 97	3
Age 2	61	Age 34	71	Age 66	99	Age 98	3
Age 3	56	Age 35	73	Age 67	98	Age 99	1
Age 4	41	Age 36	80	Age 68	85	Age 100 and over	2
Age 5	58	Age 37	71	Age 69	77		
Age 6	72	Age 38	95	Age 70	79		
Age 7	57	Age 39	84	Age 71	82		
Age 8	69	Age 40	93	Age 72	54		
Age 9	74	Age 41	97	Age 73	73		
Age 10	65	Age 42	113	Age 74	67		
Age 11	74	Age 43	103	Age 75	67		
Age 12	74	Age 44	102	Age 76	54		
Age 13	76	Age 45	87	Age 77	58		
Age 14	80	Age 46	104	Age 78	60		
Age 15	74	Age 47	106	Age 79	61		
Age 16	80	Age 48	100	Age 80	45		
Age 17	98	Age 49	118	Age 81	44		
Age 18	70	Age 50	105	Age 82	30		
Age 19	69	Age 51	113	Age 83	38		
Age 20	73	Age 52	104	Age 84	32		
Age 21	69	Age 53	105	Age 85	35		
Age 22	58	Age 54	85	Age 86	35		
Age 23	101	Age 55	94	Age 87	22		
Age 24	64	Age 56	97	Age 88	20		
Age 25	76	Age 57	94	Age 89	30		
Age 26	66	Age 58	71	Age 90	20		
Age 27	71	Age 59	101	Age 91	11		
Age 28	76	Age 60	114	Age 92	10		
Age 29	68	Age 61	110	Age 93	7		
Age 30	58	Age 62	112	Age 94	2		

Table 14

Age Category	Population	Proportion of the Population
Under 16	1,036	15%
Aged 65 and above	1,497	22%
Rest of Population	4,374	63%
Total Population	6,907	100%

**Portchester West Ward**



**Disability Data - Portchester West**

**QS303EW - Long-term health problem or disability**

ONS Crown Copyright Reserved [from Nomis on 23 December 2020]

population All usual residents  
 units Persons  
 area type 2011 wards  
 area name E05004525 : Portchester West  
 rural urban Total

Table 15

Disability	2011 Census	Proportion of the Population
Day-to-day activities limited a lot	458	7%
Day-to-day activities limited a little	706	10%
Day-to-day activities not limited	5,743	83%
All categories: Long-term health problem or disability	6,907	100%

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

**Pedestrian and Cyclist Flows - i-T Case**

**Table 16**

Time	Development Trips - Pedestrians	Development Trips - Cyclists	Proportion of Trips - Disabled (7%)	Remainder of Development Trips	Proportion of Trips - U16 (15%)	Proportion of Trips - O65 (22%)	Remainder of Development Trips	Total
0700-0800	3	0	0	3	1	1	2	9
0800-0900	7	1	1	7	1	2	5	19
0900-1000	4	0	0	4	1	1	3	11
1000-1100	3	0	0	3	0	1	2	8
1100-1200	3	0	0	3	0	1	2	8
1200-1300	3	0	0	3	1	1	2	9
1300-1400	3	0	0	4	1	1	2	9
1400-1500	4	0	0	4	1	1	3	11
1500-1600	8	1	1	8	1	2	5	20
1600-1700	6	1	0	6	1	1	4	15
1700-1800	6	1	0	6	1	1	4	15
1800-1900	5	1	0	5	1	1	3	13

**Notes**

Factor Extract from Guidance - Factors applied to total number of development trips depending on user

- Children (under 16 years) on foot or cycling, weighted by a factor of 4
- Older people (aged 65 years or above) on foot or cycling, weighted by a factor of 4
- Equestrians weighted by a factor of 4
- Pedestrians with a disability weighted by a factor of 6

**Pedestrian and Cyclist Generation - Assumptions (i-Transport Case)**

Transport Assessment - Appendix O

**Table 16 - Total Trip Demand Using NTS Data**

	Route A - Downend Road	Route B - Cams Bridge	Route C - Upper Cornaway Lane	Total Trips
Walking Trips (incl Walk to Public Transport)	56	309	332	697
Cycle Trips	5	14	18	37
<b>Total Trips</b>	<b>61</b>	<b>323</b>	<b>350</b>	<b>734</b>
<b>% Trips</b>	<b>8.3%</b>	<b>44.0%</b>	<b>47.7%</b>	<b>100.0%</b>

**Pedestrian Trip Profile**

Pedestrian Trip Rates (Two-Way)

**Table 17**

Time	Trip Rate	Profile (%)	Distribution of 56 trips
0700-0800	0.087	5%	3
0800-0900	0.213	13%	7
0900-1000	0.12	7%	4
1000-1100	0.091	6%	3
1100-1200	0.092	6%	3
1200-1300	0.097	6%	3
1300-1400	0.099	6%	3
1400-1500	0.129	8%	4
1500-1600	0.22	14%	8
1600-1700	0.167	10%	6
1700-1800	0.159	10%	6
1800-1900	0.134	8%	5
<b>Total</b>	<b>1.608</b>	<b>100%</b>	<b>56</b>

**Cyclist Trip Profile**

Cyclist Trip Rates (Two-Way)

**Table 18**

Time	Trip Rate	Profile (%)	Distribution of 5 trips
0700-0800	0.011	9%	0
0800-0900	0.014	11%	1
0900-1000	0.006	5%	0
1000-1100	0.008	6%	0
1100-1200	0.005	4%	0
1200-1300	0.007	6%	0
1300-1400	0.008	6%	0
1400-1500	0.006	5%	0
1500-1600	0.015	12%	1
1600-1700	0.013	10%	1
1700-1800	0.017	14%	1
1800-1900	0.015	12%	1
<b>Total</b>	<b>0.125</b>	<b>100%</b>	<b>5</b>

**Sensitivity Test - Pedestrian and Cyclist Flows - FBC Case**

Table 19

Time	Development Trips - Pedestrians	Development Trips - Cyclists	Proportion of Trips - Disabled (7%)	Remainder of Development Trips	Proportion of Trips - U16 (15%)	Proportion of Trips - O65 (22%)	Remainder of Development Trips	Total
0700-0800	4	0	0	4	1	1	3	10
0800-0900	39	1	3	37	6	8	23	94
0900-1000	5	0	0	5	1	1	3	13
1000-1100	4	0	0	4	1	1	3	10
1100-1200	4	0	0	4	1	1	3	10
1200-1300	4	0	0	4	1	1	3	11
1300-1400	4	0	0	4	1	1	3	11
1400-1500	6	0	0	6	1	1	4	14
1500-1600	30	1	2	28	4	6	18	72
1600-1700	17	1	1	17	2	4	10	42
1700-1800	7	1	1	7	1	2	5	19
1800-1900	6	1	0	6	1	1	4	16

**Notes**

Factor Extract from Guidance - Factors applied to total number of development trips depending on user

- Children (under 16 years) on foot or cycling, weighted by a factor of 4
- Older people (aged 65 years or above) on foot or cycling, weighted by a factor of 4
- Equestrians weighted by a factor of 4
- Pedestrians with a disability weighted by a factor of 6

**Pedestrian and Cyclist Generation - Assumptions (FBC Case)**

FBC Rebuttal

Pedestrian Distribution

Purpose	Downend Road		Cams Bridge		Upper Cornaway		Total Walk Trips
	%	Number (based on 578 trips)	%	Number (based on 578 trips)	%	Number (based on 578 trips)	
Commuting+Business	75%	35	25%	12	0	0	47
Education Primary	0%		25%	17	0.75	52	69
Education / secondary	50%	24	50%	24	0%	0	48
Shopping	Not considered as no facilities within maximum walking distance						
Other escort+ Personal Business	Not considered as no facilities within maximum walking distance						
Leisure + other leisure	60%	72	20%	24	20%	24	120
Total (based on 578 trips/day)		131		77		76	284
Proportion of total pedestrian trips	46%		27%		27%		100%

**Pedestrian Trip Profile**

Initial pedestrian profile was presented within SOCG for 2019 Appeal

Education / Commuting pedestrian trips and profile were presented in the 2019 rebuttal

Other purpose trips uses TRICS profile (i-Transport Case)

Table 20

Time	Commuting and Education Trips (59 Trips)		Other Purpose Trips (72 Trips)		Total Distribution of 131 trips
	Profile (%)	Two-Way Trips	Profile (%)	Two-Way Trips	
0700-0800	0%	0	5%	4	4
0800-0900	50%	30	13%	10	39
0900-1000	0%	0	7%	5	5
1000-1100	0%	0	6%	4	4
1100-1200	0%	0	6%	4	4
1200-1300	0%	0	6%	4	4
1300-1400	0%	0	6%	4	4
1400-1500	0%	0	8%	6	6
1500-1600	33%	20	14%	10	30
1600-1700	17%	10	10%	7	17
1700-1800	0%	0	10%	7	7
1800-1900	0%	0	8%	6	6
<b>Total</b>	<b>100%</b>	<b>59</b>	<b>100%</b>	<b>72</b>	<b>131</b>

**Cyclist Trip Profile**

Cyclist Trips taken from i-T work as no data was presented

i-T work presented that 5 cyclist trips would route from Downend Road

Table 21

Time	Trip Rate	Profile (%)	Distribution of 5 trips
0700-0800	0.011	9%	0
0800-0900	0.014	11%	1
0900-1000	0.006	5%	0
1000-1100	0.008	6%	0
1100-1200	0.005	4%	0
1200-1300	0.007	6%	0
1300-1400	0.008	6%	0
1400-1500	0.006	5%	0
1500-1600	0.015	12%	1
1600-1700	0.013	10%	1
1700-1800	0.017	14%	1
1800-1900	0.015	12%	1
<b>Total</b>	<b>0.125</b>	<b>100%</b>	<b>5</b>