

4.0 TRAFFIC FLOW PREDICTIONS

4.1 Model Structure

A traffic model forecast has been carried out and was reported in Working Paper (No. 1). The Study Brief required producing traffic forecasts for the year 2006 covering the Area of Influence in Shatin and Ma On Shan District.

In order to assess the traffic impact during the construction and operation of the Project for the EIA, traffic forecasts for the year 2003 and 2021 were also produced and these are described in the following sections. The following section also describes the traffic input assumptions for the EIA Study that were used in the noise and air quality impact assessment.

The traffic model inputs and base year information are provided in Working Paper No.1, Traffic Forecast and should be referenced for full details of the traffic assessment. All traffic figures have been approved for use by Transport Department.

4.2 Baseline Traffic Conditions

To assess the existing traffic conditions and provide a basis for the future year predictions, the flows were modelled for the base year of 2003, the year of construction works commencement. The a.m. and p.m. peak traffic flows in vehicles/hr for the year 2003 are depicted with the traffic breakdown into type and number of vehicles in Figure 4.1.

4.3 Future Year (Worst Case) Traffic Volumes

To assess the worst case traffic conditions with a 15 years time period after opening of the road as identified in the Study Brief, the year 2021 has been assessed, 15 years after completion of the project. The traffic studies have confirmed that the year 2021 will have the highest traffic flows and will therefore be the worst case. The a.m. and p.m. peak traffic flows in vehicles/hr and the traffic breakdown into type and number of vehicles are provided in Figure 4.2 and Table 4.1.

4.4 Other Traffic Schemes in the Area

As described in the Study Brief (Clause 2.4) the Trunk Road T4 which is planned to be implemented in the year 2006 will connect Trunk Road T3, to be completed in 2003, to the Sha Tin Road. This Trunk Road will divert part of the traffic away from Tai Po Road and thus reduce some of the traffic impacts along this roadway in 2006. However, the 2021 traffic flows are still the highest within 15 years of opening the road and these have been used for the EIA.

Table 4.1 2021 Forecast Traffic Flows (a.m.) in Vehicles per Hour

Road	Direction	Car & Taxi	Heavy Vehicles	Total	% of heavy	Flow number in Figure 4.2a
Shing Mun Tunnel Road	S - N	2425	2379	4804	50%	70
	N - S	947	901	1848	49%	69
	N - S	898	854	1752	49%	71
Tai Po Road - Tai Wai (up to Lion Rock Tunnel Road)	S - N	362	216	578	37%	3
	N - S	527	315	842	37%	4
Lion Rock Tunnel Road (up to Tai Po Road interchange)	S - N	551	330	881	37%	7
	N - S	585	350	935	37%	8
Tai Po Road - Sha Tin (Scenery Court - New Town Plaza)	N - S	2428	2381	4809	50%	17
	S - N	2509	2387	4896	49%	18
Slip road from Tai Po Road - Bus Terminus & Rural Committee Road	S - N	237	134	371	36%	19
Shatin Rural Committee Road (from KCR Station - Interchange)	W - E	1869	796	2665	30%	47 & 48
	S - N	765	430	1195	36%	23
	N - S	759	350	1109	32%	26
	S - N	650	424	1074	39%	27
	N - S	596	389	985	39%	28
	S - N	1136	741	1877	39%	33
Tai Po Road - Slip Road (Rural Committee Road - Tai Po Road, Lek Yuen)	S - N	275	221	496	45%	20
	N - S	515	312	827	38%	21
Tai Po Road - Lek Yuen - Wo che	S - N	2335	2399	4734	51%	45
	N - S	2727	2438	5165	47%	46
Tai Po Road - Slip Road (Wo Che - Fo Tan Road)	S - N	947	699	1646	42%	50
	N - S	503	372	875	43%	51
Tai Po Road - Wo che - Fo Tan Station	S - N	2016	1271	3287	39%	53
	N - S	3037	1405	4442	32%	54
Tai Po Road - Fo Tan Station -	S - N	3142	1981	5123	39%	59
	N - S	4657	2155	6812	32%	60
Fo Tan Road (Yuen Wo Road - Shun Mun River)	S - N	1174	729	1903	38%	39
	N - S	937	581	1518	38%	40
Fo Tan Road (Yuen Wo Road - Ti interchange)	S - N	1413	877	2290	38%	43
	N - S	1080	670	1750	38%	44
Fo Tan Road (between interchange)	S - N	1240	770	2010	38%	61
	N - S	1465	909	2374	38%	62
Fo Tan Road (north interchange - north)	S - N	1653	1025	2678	38%	55
	N - S	1166	724	1890	38%	56
Sui Wo Road Flyover	S - N	241	134	375	36%	49
	N - S	386	215	601	36%	52
Truck Road T3	W - E	549	539	1088	50%	1
	E - W	651	620	1271	49%	2

* Heavy Vehicles: LGV, MGV, HGV, Coach and Bus