

## APPLICATION S/1901/16/OL

### MARLEY ETERNIT WHADDON ROAD MELDRETH

### ATKINS REVIEW OF TRANSPORT ASSESSMENT

### ADDITIONAL INFORMATION/CLARIFICATION

## 1 INTRODUCTION

1.1 Following the review by Atkins of our Transport Assessment work in support of a Planning Application S/1901/16/OL they identified some additional information would assist in their review. The current conclusions of that report and the recommendations for further information is given below:

### Conclusion

In conclusion, based on the above review of the 'AMENDED\_transport\_statement\_Meldreth' (November 2016 v3) produced by Vectos, it is considered that the further transport assessment work undertaken by Vectos in support of the proposed Marley Eternit development is largely robust, and the proposed development is considered unlikely to have a major impact on the operation of local junctions and on the local highway network between the site and Meldreth village (i.e. Whaddon Road and Whitecroft Road). We would however make the following recommendations for further assessment work to be undertaken in support of the proposed development:

- **Multi-modal trip generation (residential development)** - It is recommended that the modal splits derived from the TRICS outputs are checked against 2011 Census Travel for Work modal splits for the local ward in order to confirm that they are an accurate representation of existing local travel patterns.
- **Multi-modal trip generation (industrial development)** - It is recommended that, as the employment aspect of the industrial site is existing, it would be appropriate to survey the existing employees to obtain more accurate details of existing modal splits, as this would serve to provide a check on the modal splits derived from TRICS.
- **Journey to Work Distribution** - Figures 7.1 and 7.2 cannot be found within Appendix C of the document as stated within the text, therefore further clarification is required on the AM and PM distribution for trips generated by the proposed development. The distribution of development trips outlined in the subsequent paragraphs cannot therefore be verified.
- **Forecast of Cycle Parking at Meldreth Station** - Clarification is required on the origin of the assumption that the residential site will give rise to a population of 360 persons (i.e. reference to 2011 Census data for local household composition).
- **Junction Capacities** - The results of the junction capacity modelling have shown that the Whaddon Gap/A1198 junction and the Whaddon Road/Fenny Lane crossroads are predicted to operate well within capacity with very little queuing or delay, therefore it is considered that the impact of the proposed Marley Eternit Site Development on the operation of these two junctions is likely to be minimal. It is recommended that traffic counts are undertaken at the modelled junctions during a neutral month and the junction models rerun with this updated baseline data as a further check on available capacity at these junctions, however it is considered that this is unlikely to have a material impact on the above conclusions.

1.2 That information request is considered and presented next.

## 2 MULTI-MODAL TRIP GENERATION (RESIDENTIAL DEVELOPMENT)

2.1 The modal splits were originally based on TRICS. However following a request from Cambridge County Council (CCC) the total person trips generated by the site (based on TRICS) were split according to census modal share. This information was presented in April 2017 and repeated below for both the residential and employment elements is shown below with **Table 2.1** showing the modal split percentages and **Table 2.2** showing the consequent trip generation.

Mode	Journey from Meldreth (%)	Journey to Meldreth (%)
Work mainly at or from home	0	0
Underground, metro, light rail or tram	0	0
Train	9	3
Bus, minibus or coach	2	1
Taxi	0	0
Motorcycle, scooter or moped	1	1
Driving a car or van	<b>71</b>	<b>75</b>
Passenger in a car or van	5	6
Bicycle	4	4
On foot	8	9
Other method of travel to work	0	0

**Table 2.1 – Census Travel to Work Modal Splits**

	Time Period	Residential Site			Employment Site			Total		
		Arr	Dep	2-Way	Arr	Dep	2-Way	Arr	Dep	2-Way
<b>TOTAL PEOPLE</b>	<b>AM</b>	24	94	118	35	4	39	<b>59</b>	<b>98</b>	<b>157</b>
	<b>PM</b>	74	38	112	2	40	42	<b>76</b>	<b>78</b>	<b>154</b>
	<b>Daily</b>	529	545	1074	123	107	230	<b>652</b>	<b>652</b>	<b>1304</b>
<b>TRAIN</b>	<b>AM</b>	2	8	11	1	0	1	<b>3</b>	<b>9</b>	<b>12</b>
	<b>PM</b>	7	3	10	0	1	1	<b>7</b>	<b>5</b>	<b>11</b>
	<b>Daily</b>	48	49	97	4	3	7	<b>51</b>	<b>52</b>	<b>104</b>
<b>BUS</b>	<b>AM</b>	0	2	2	0	0	0	<b>1</b>	<b>2</b>	<b>3</b>
	<b>PM</b>	2	1	2	0	0	0	<b>2</b>	<b>1</b>	<b>3</b>
	<b>Daily</b>	11	11	22	1	1	3	<b>12</b>	<b>13</b>	<b>25</b>
<b>MOTORCYCLE</b>	<b>AM</b>	0	1	1	0	0	0	<b>1</b>	<b>1</b>	<b>1</b>
	<b>PM</b>	1	0	1	0	0	0	<b>1</b>	<b>1</b>	<b>1</b>
	<b>Daily</b>	5	5	10	1	1	2	<b>6</b>	<b>6</b>	<b>12</b>
<b>CAR</b>	<b>AM</b>	17	67	84	26	3	29	<b>43</b>	<b>70</b>	<b>113</b>
	<b>PM</b>	52	27	79	2	30	32	<b>54</b>	<b>57</b>	<b>111</b>
	<b>Daily</b>	375	386	761	93	81	173	<b>467</b>	<b>467</b>	<b>934</b>
<b>PASSENGER</b>	<b>AM</b>	1	4	5	2	0	2	<b>3</b>	<b>4</b>	<b>8</b>
	<b>PM</b>	3	2	5	0	2	2	<b>3</b>	<b>4</b>	<b>7</b>
	<b>Daily</b>	24	25	49	7	6	13	<b>31</b>	<b>31</b>	<b>62</b>
<b>BICYCLE</b>	<b>AM</b>	1	4	5	2	0	2	<b>3</b>	<b>4</b>	<b>7</b>
	<b>PM</b>	3	2	5	0	2	2	<b>3</b>	<b>3</b>	<b>7</b>
	<b>Daily</b>	22	23	45	5	5	10	<b>28</b>	<b>28</b>	<b>56</b>
<b>ON FOOT</b>	<b>AM</b>	2	8	10	3	0	4	<b>5</b>	<b>8</b>	<b>13</b>
	<b>PM</b>	6	3	9	0	4	4	<b>6</b>	<b>7</b>	<b>13</b>
	<b>Daily</b>	43	44	87	11	10	21	<b>54</b>	<b>54</b>	<b>108</b>

Table 2.2 – Total Person Trips by Modal Share



### **3 MULTI-MODAL TRIP GENERATION (INDUSTRIAL DEVELOPMENT)**

3.1 Surveys have not been undertaken of existing staff. However, as detailed above, the initial TRICS modal share data for general industrial use has been adjusted like the residential trips to reflect local census data for employment trips and this data would partially include the Marley Eternit site.

3.2 These figures have been used for distribution and capacity assessment purposes.

### **4 JOURNEY TO WORK DISTRIBUTION**

4.1 Figures 7.1 and 7.2 are attached to this document showing the trip distribution across the network.

### **5 FORECAST OF CYCLE PARKING AT MELDRETH STATION**

5.1 The total population within MSOA E02003792: South Cambridgeshire 018 is 9367. This has been divided by the 3829 total number of households in the MSOA to get an average number of persons per house hold, which is 2.45.

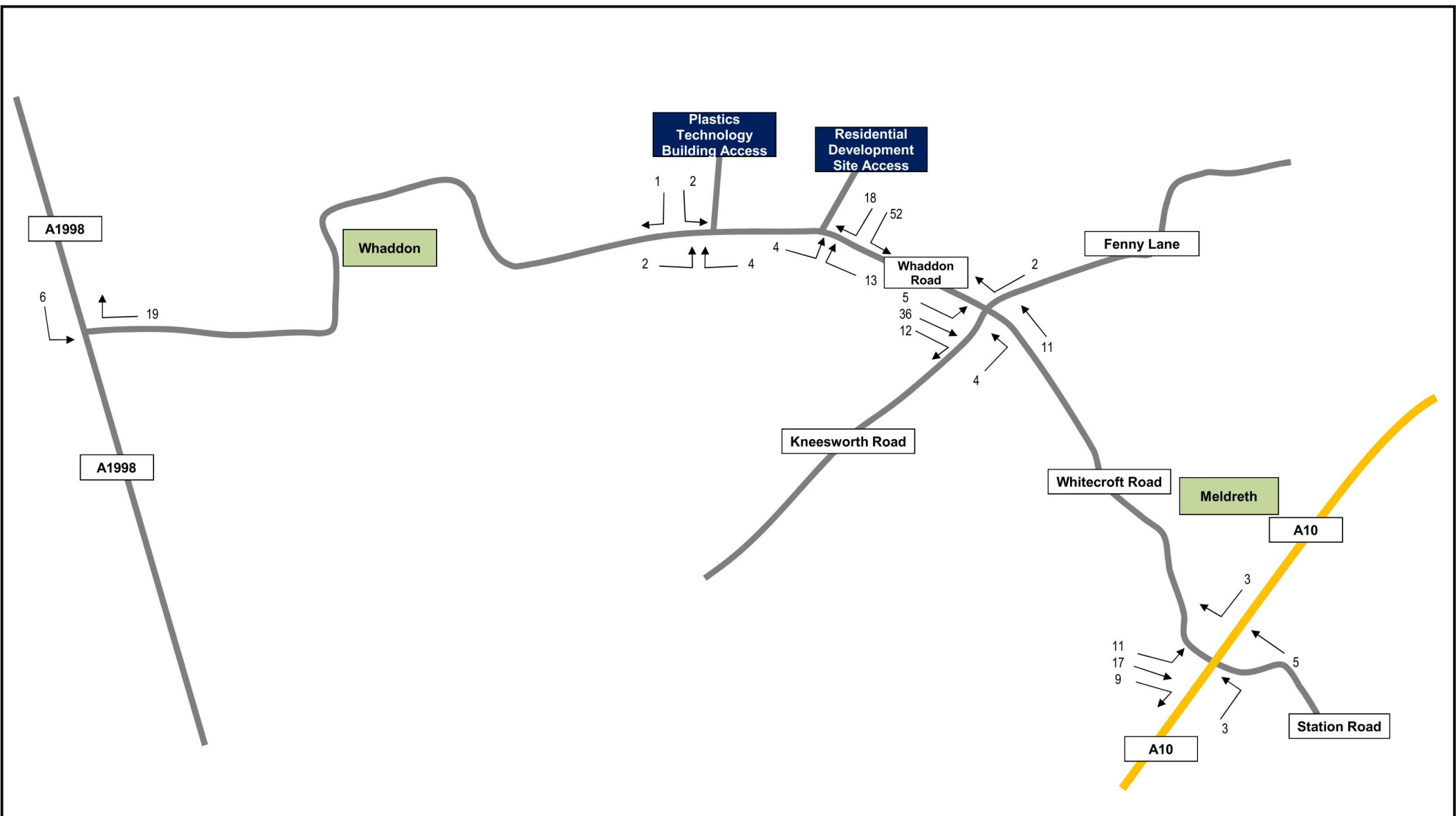
5.2 This number has been quantified against the proposed 150 houses to estimate the total population within the proposals, which is 367.5. The cycle parking calculation had assumed a population of 360. The difference is therefore only marginal and the forecast for cycle parking is considered an accurate reflection of local household occupancy.


### **6 JUNCTION CAPACITIES**

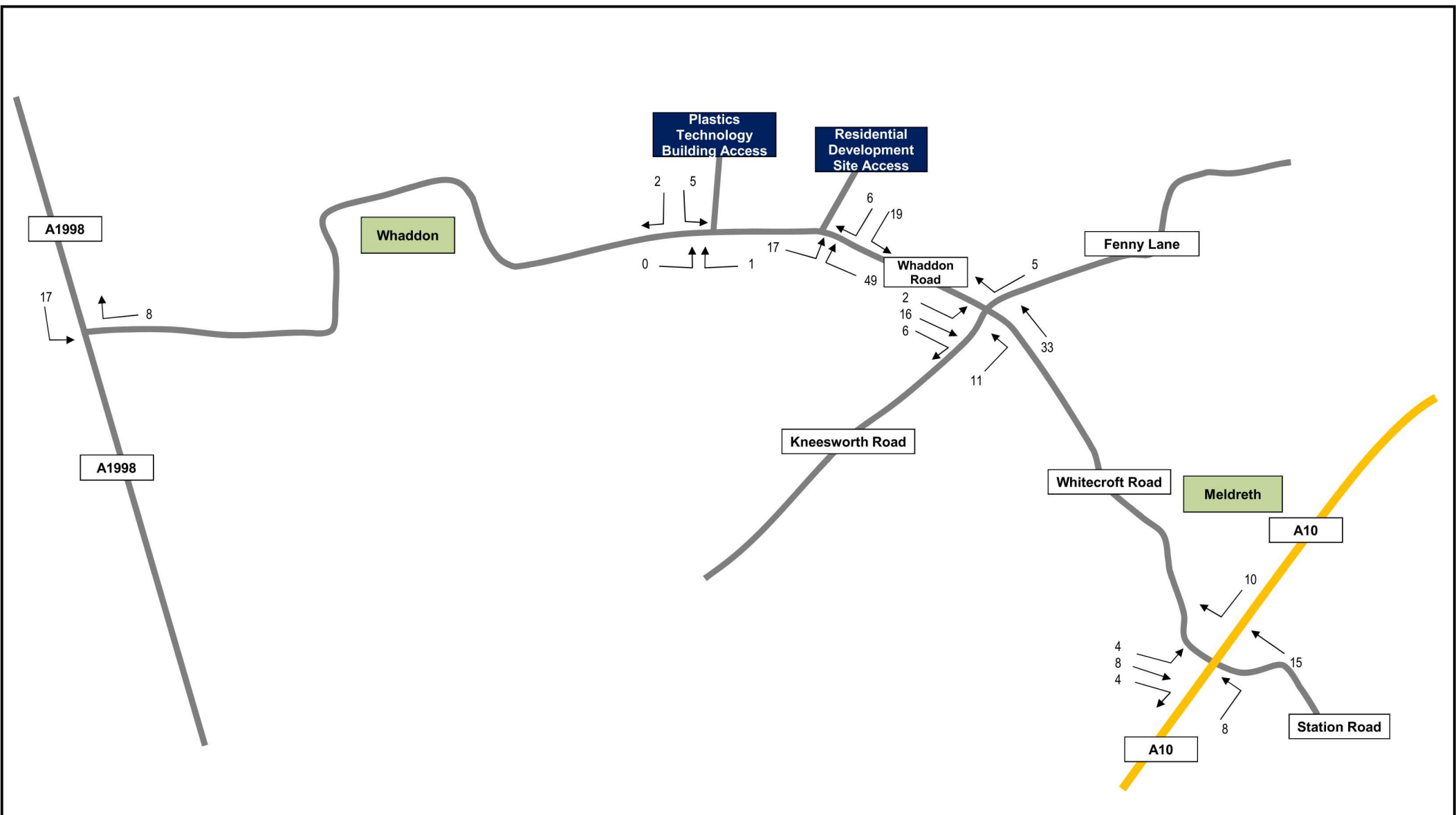
6.1 Due to the summer holiday it has not be possible to obtain traffic surveys that the junctions of Whaddon Road/A1198 or at the Fenny Lane/Whaddon Road cross roads. Atkins have undertaken a rough model of the junction operation using nearby count data to derive flows passing through the junctions. That approach provides a reasonable forecast of traffic flows. That modelling shows that the effect of development traffic on queues and delays is very limited. At Whaddon Gap the junction at 2023 operates at 43% of its capacity increasing to 46% with development, resulting in a one second increase in delay for the minor road traffic turning right and one extra vehicle queued. There is also a one extra vehicle queued turning right off the A1198. In summary, this junction operates well within capacity and the impact of development trips is only marginal.


6.2 At the Fenny Lane Crossroads at 2023 the Atkins model shows the operation at 29% of capacity rising to 30% with development. The increase in average delay is 0.5 seconds and one extra vehicle queued on the Kneesworth Road approach. Again this impact is marginal and for both junctions this would be barely perceptible by the road user.

- 6.3 While the modelling has not been based on the junction turning counts but derived from nearby count data the fact that the junctions operate so well within capacity means that there is considerable headroom and traffic flows would have to be significantly higher to show any perceptible effect. It should be re-iterated that the NPPF test to refuse development on traffic or highways grounds is only where development gives rise to a severe impact. Overwhelmingly it is evident that any further modelling will not give rise to that level of impact.



	Project:	<b>VN60622</b>
	Title:	<b>AM Traffic Flows</b>
	Figure No:	<b>Figure 7.1</b>



	Project:	<b>VN60622</b>
	Title:	<b>PM Traffic Flows</b>
	Figure No:	<b>Figure 7.2</b>