1.3 Instructions on use of the Manual

Step 1: Selection of the Appropriate Land use Class

The sample summary sheet contains details of the various land uses broken down by 'Group', 'Category' and 'Class'. Each Land use Class is assigned a specific code which should be referenced when undertaking transportation assessments.

A description of each Land use Class is provided below the land use codes. This should be examined to help identify the appropriate Land use Class for a development.

Step 2: Check Land use Sub-Classification

As detailed in the Manual Development Process Section, the trip generation and parking demand rates for certain Land use Classes have been sub classified depending on their location within the Emirate. In total, five regional sub-classifications have been adopted for the manual.

In cases where the Land use Class has been regionally sub-classified, users of the manual shall liaise with the DoT engineers to identify the spatial sub-classification areas.

Step 3: Check the Independent Variable

The independent variable of a Land use Class is the unit by which a development is measured. In this manual, typical independent variables include Gross Floor Area (GFA), Gross Leasable Area (GLA), number of Bedrooms, number of Employees, number of Seats etc.

A land use is typically allocated an independent variable based on its representativeness of the Land use Class and the availability of information for the surveyed sites. For example, the independent variable for a local shopping centre is '100 sqm of GFA' and the independent variable for a school is the number of students.

To ensure consistency in the calculation of trip generation and parking demand rates, only one variable has been selected for each Land use Class within this manual. It is important that the independent variable is accurately measured for a Land use Class. Guidance on the definitions and measurements of each independent variable is contained in the Terminology section of this manual.

Step 4: Select the Relevant Analysis Period

Within the manual, trip generation rates have been provided to coincide with the network peak hour flows. These have been provided for the morning (AM), Midday (Noon), and evening (PM) peak hour of the transport network. In most cases the peak traffic volumes generated for a site coincide with the network peak hours, however some Land use Classes have peak traffic periods which fall outside of the normal peak network periods. The highest traffic generation figure throughout the day is given by the Peak Hour Generator (PHG).

In addition to the selection of an appropriate time period, some Land use Classes contain trip generation values for a typical weekday and a typical weekend. The selection of an appropriate day and time period for determining the number of trips from a development is dependent on the type of land use and the peak traffic period of the adjacent road network. When undertaking a Transportation Impact Study, the appropriate analysis scenarios should be agreed with the DoT Liaison Engineer during the Methodology Stage of the study.

Step 5: Calculate the trip generation rate

The overall trip generation for a given time period is calculated by multiplying the independent variable identified in Step 3 by the trip generation rate identified in Step 4.