

9.4 Link Capacity and Road Categories

9.4.1 A link capacity analysis is required for all links within the study area. Lane capacities for each link type in Abu Dhabi are given in Table 9-7 below. This includes all links excluding local roads.

Table 9-7 Typical Lane Capacities in Abu Dhabi per Link Type

Link Type	Lane Capacity (vehicles/ hour)
Freeway	2000
Expressway	1900
Urban overpass, underpass	1700
Arterial road, signalized, non-CBD	1000
Arterial road, signalized, CBD	700
Collector road	700
Ramp	1500
Rural 2-lane highway (without median)	1100
Local road	600

9.4.2 *Freeway* – divided highway designed for safer high-speed operation with at least 2 lanes in each direction and full access control. This means grade separation and interchanges throughout, and the elimination of at-grade or right-in/right-out intersections.

9.4.3 *Expressway* – divided highway with at least 2 lanes in each direction, designed for high-speed through traffic with at least partial control of access.

9.4.4 *Arterial* – serves the major centers of activity of an urban area. Arterial roads serve the longest trip desires and represent highest traffic volume corridors. They carry a high proportion of the total urban area travel on a minimum of mileage. In reference to the Abu Dhabi Urban Street Design Manual arterial roads would typically be categorized as Boulevard.

9.4.5 *Urban underpass/ overpass* – multilane grade-separation facility built under or over intersections in urban areas to serve free-flow through movements, typically on arterials.

9.4.6 *Collector* – collects traffic from local subdivision areas and channels it into the arterial system. Collector roads provide both, land access and traffic circulations, within residential neighborhoods, commercial and industrial areas. In reverse they distribute trips from the arterial roads through these areas to their ultimate destination. In reference to the Abu Dhabi Urban Street Design Manual collector roads would typically be categorized as Avenue, however in some cases a categorization as Boulevard may be appropriate.