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Highway & Traffic Engineering

Learning Activities: Traffic Volume Studies

by

Pn. Azlina binti Ismail

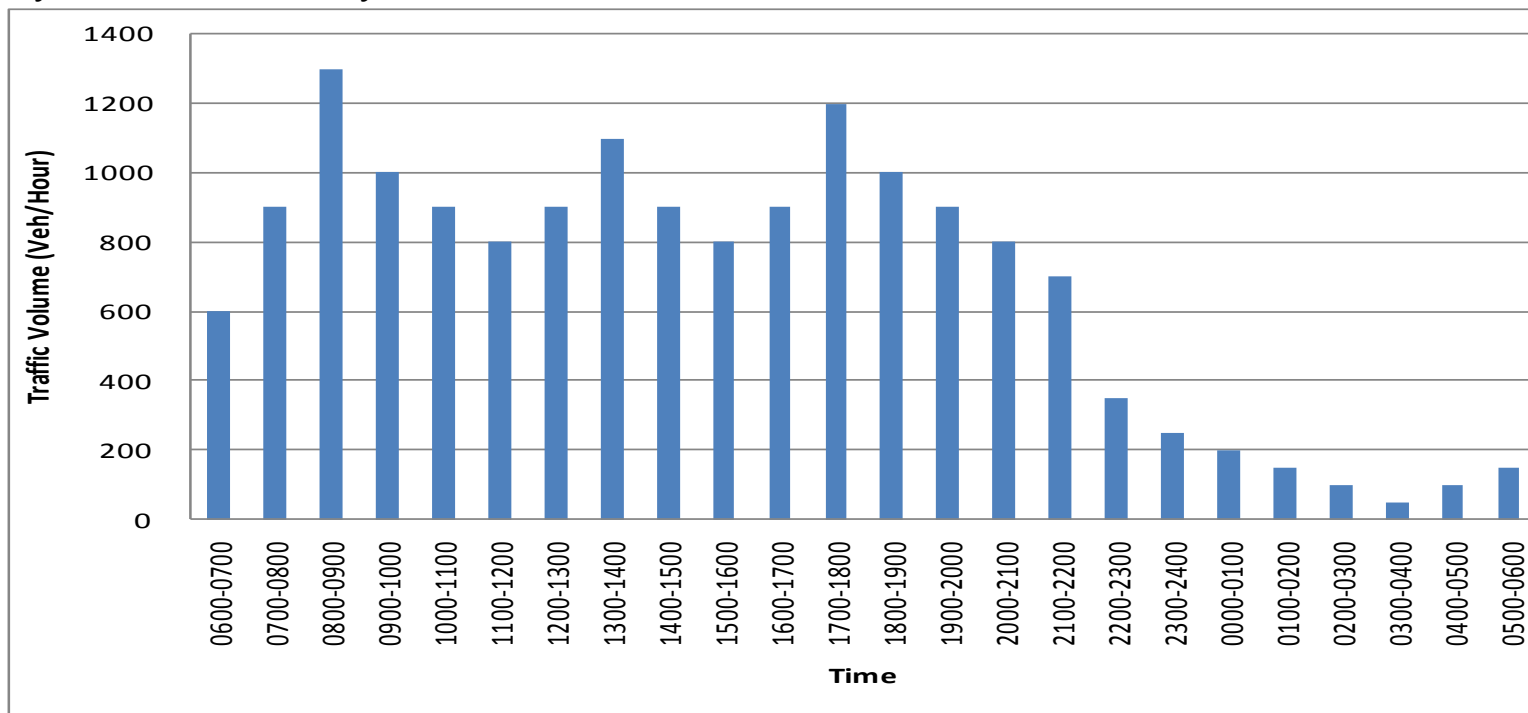
Dr.Intan Suhana binti Mohd Razlan

Faculty of Civil Engineering & Earth Resources
azlainai@ump.edu.my

QUESTION 1

Figure below presents the result of traffic volume counting at a survey station along a Federal Road of JKR Standard U5.

1. Compute the Peak Hour Volume for both peak hours.
2. If the highest 15 minutes AM peak hour traffic is 350 veh, determine PHF.
3. Determine ADT.
4. Determine the DHV based on the ADT.
5. Given that the predicted traffic growth rates in the next 10 years period will be 5% per year, determine year 2024 DHV for the road section.



QUESTION 2

Traffic surveys have been conducted on a road segment of JKR R5 standard that link two towns. At present it functions as a single 1-lane carriageway road. The summary of the traffic data is shown in **below**:

- i. Determine the peak hour volume (PHV) and Peak Hour Factor (PHF).
- ii. Compute the traffic composition in the peak hour period in terms of pcu/hr.

Time		15 minutes Traffic by Vehicle Class				
From	To	Class 1	Class 2	Class 3	Class 4	Class 5
7:00	7:15	300	50	5	2	100
7:15	7:30	330	55	10	4	110
7:30	7:45	360	60	15	6	120
7:45	8:00	400	65	20	8	130
8:00	8:15	440	70	25	10	140
8:15	8:30	480	75	30	12	150
8:30	8:45	530	80	35	14	160
8:45	9:00	583	85	40	16	170
9:00	9:15	520	90	45	14	150
9:15	9:30	460	95	50	12	140
9:30	9:45	410	100	55	10	130
9:45	10:00	350	105	60	8	110

END OF QUESTION