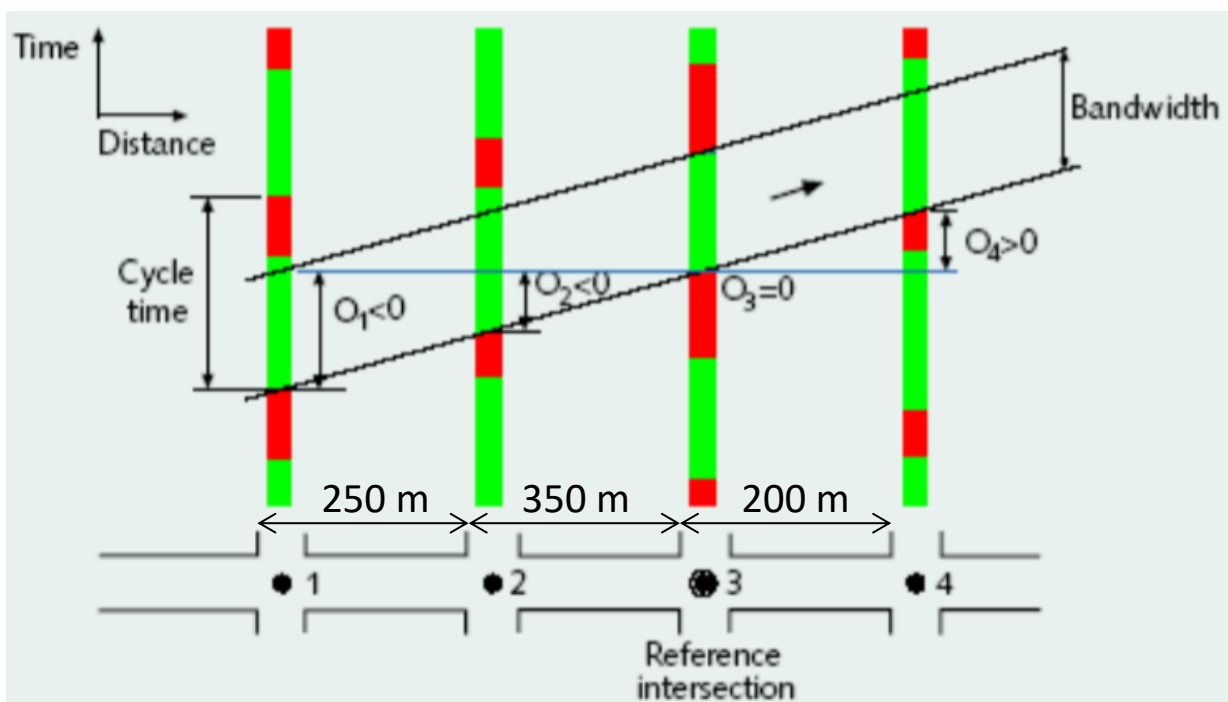


Signalised intersections – operations and control strategies

Question 1. Consider the signal operations of four successive intersections as in the figure below. The distances between the intersections are shown in the figure. If free flow speed is 60 km/h determine

- The offset O_1 , O_2 , and O_4 .
- The bandwidth.



Question 2. A common traffic signal practice in the city of Sydney is to ban the right turns at the intersections or at least forbid them during the peak traffic intervals. The signalized streets in those areas are mostly bi-directional with 2 lanes per direction. What are the advantages and disadvantages of this policy on the operations of traffic?

Question 3. Assume the green times of a 3-phase traffic signal are 25, 40 and 20 seconds. What is the cycle time? Note to consider the yellow and all-red times. Check Table 6.8 of Guide to Traffic Management Part 9: Transport Control Systems – Strategies and Operations, Austroads (2020).