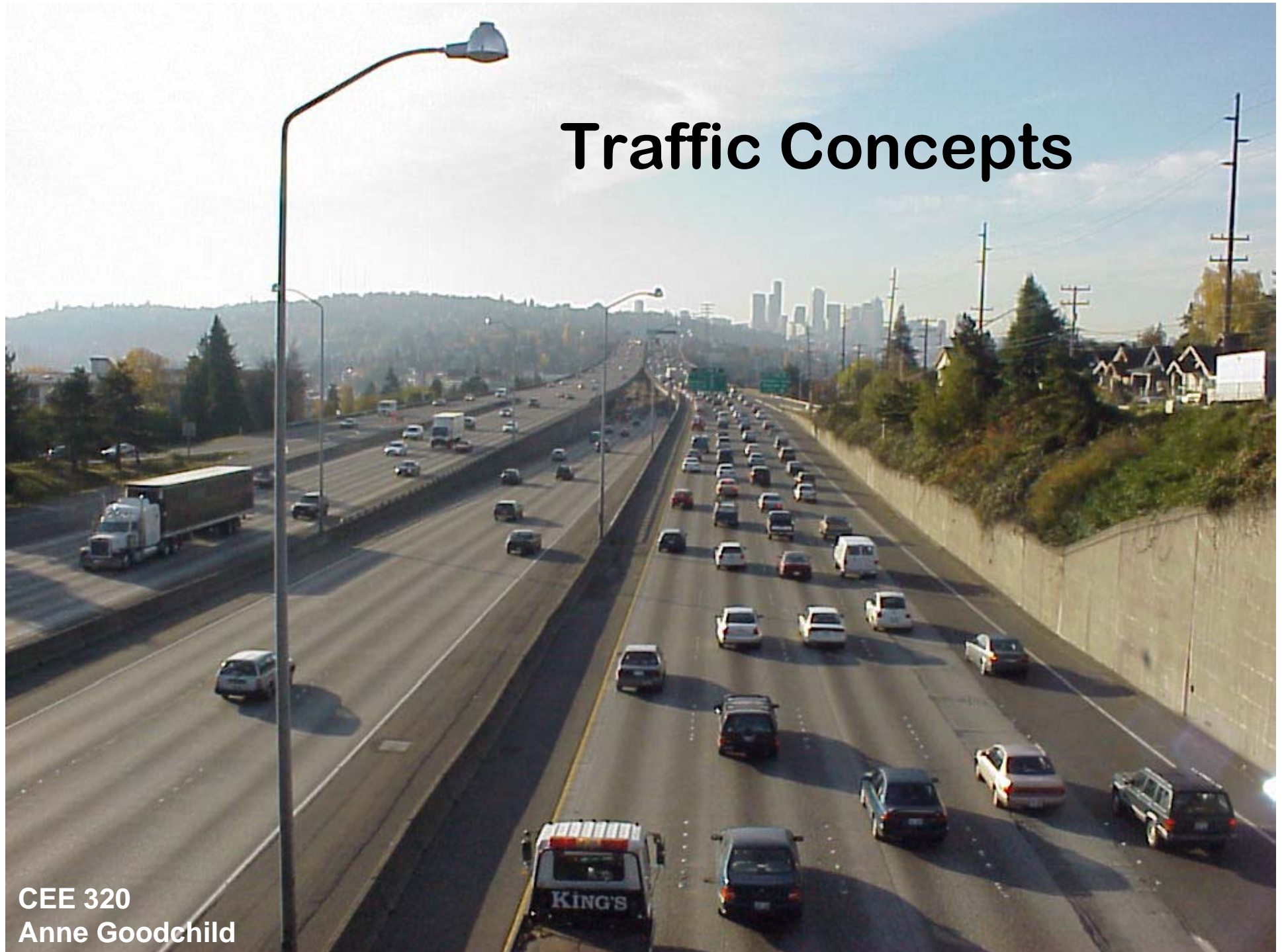


Traffic Concepts



CEE 320
Anne Goodchild

Flow (q)

- The number of vehicles (n) passing some designated roadway point in a given time interval (t)

$$q = \frac{n}{t}$$

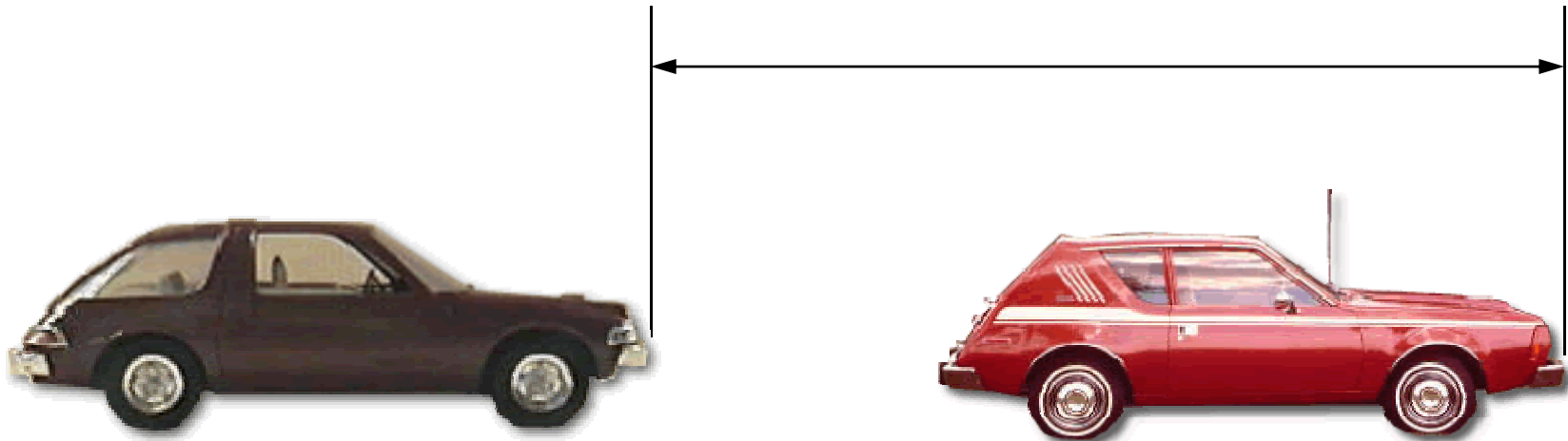
- Units typically vehicles/hour
- Volume typically refers to flow in an hour

Flow

- **Text also uses flow rate**
- **Flow is constantly varying!**
- **Analysis flow rate is peak 15-minute flow within the hour of interest.**

Spacing

- **The distance (ft) between successive vehicles in a traffic stream, as measured from front bumper to front bumper**



Spacing

- **Density**
 - the number of vehicles over a length of freeway
- **Occupancy**
 - Measured by loop detectors
 - The percent of time the loop is covered by a vehicle

Headway (h)

- **The time (in seconds) between successive vehicles, as their front bumpers pass a given point.**

$$q = \frac{n}{\sum_{i=1}^n h_i} = \frac{1}{\bar{h}}$$