**CE 34500: Transportation Engineering**

**Homework 3**

1. Determine Level of Service an urban freeway section, if the BFFS = 70 mph. The data are as follows:

Demand Volume: 4000 veh/h

Number of lanes: 4 (one direction)

Lane width = 12 ft.

Lateral clearance =5 ft. (right side)

Interchange density = 1 per mile

Percent trucks = 14

Percent RVs = 4

PHF = 0.95

Commuter traffic

1. Determine Level of Service a two-lane two-way highway for a 2 mile segment if the BFFS = 60 mph. The data are as follows:

Volume = 1600 veh/h (two-way)

Percent trucks = 5

Percent RVs = 1

Peak hour factor = 0.95

Percent directional split = 50-50

Percent no-passing zones = 50

Lane width = 12 ft.

Shoulder width = 4 ft.

Access points per mile = 20

Highway: Class I

Terrain: Rolling