BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY



Course No: CE 452

Course Title: Transportation Engineering Sessional-1

Experiment Name: Determination of Roadway Capacity

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Date of Performance: 05-04-2021

Date of Submission: 05-04-2021

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Roadway Capacity Calculation:

Roadway pattern: 2 Lane 2 Way Rural Highway

Given, Level of service, LOS = C

% of passing sight distances = 80

Lane width = 10 feet

Shoulder width = 2 feet

Capacity = 2000 passenger vehicle/hr (Total both direction)

For LOS C and 80% passing sight distance,

Reduction factor = 0.68 ;

Capacity reduction factor for 10 feet lane width = 0.81
(Two Lane Roadway)

Capacity reduction factor for 2 feet shoulder = 0.83

So, Actual roadway capacity = $2000 \times 0.68 \times 0.81 \times 0.83$
= 914 passenger vehicle/hr
(Total in both direction)

Result:

Actual Roadway Capacity = 914 passenger veh/hr