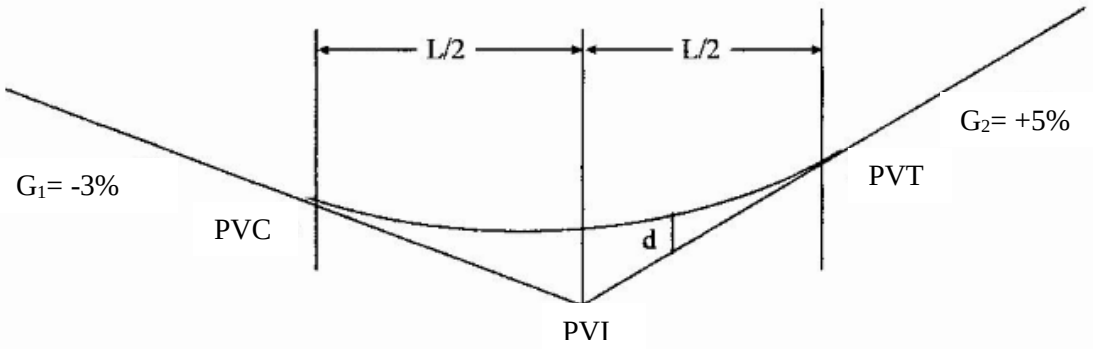
CE353 PRINCIPLES OF TRANSPORTATION AND TRAFFIC ENGINEERING

RECITATION 5

1) In a sag type of vertical curve as shown below, the offset distance (d) is given as 1 meter at station kilometer 3+600.00. What would be the length of vertical sag curve to satisfy these conditions?



St KmPVI = 3+500.00
Elv. PVI = 625.00m

2) On a section of highway, where there is a horizontal curve-vertical curve combination with P1's coinciding, the outer edge elevation of roadway at 3 + 616.2 is 163.10m.

With the given data and cross-section, determine whether the existing design fits to Turkish Standards for superelevation application.

Stopping Sight Distance = 110.79 m
G_1 = + 2.8 %
G_2 = - 1.4%
Elevation PVI (PI_v) = 164.2 m
St.Km. PVI ($P1_v$) =3+640.00