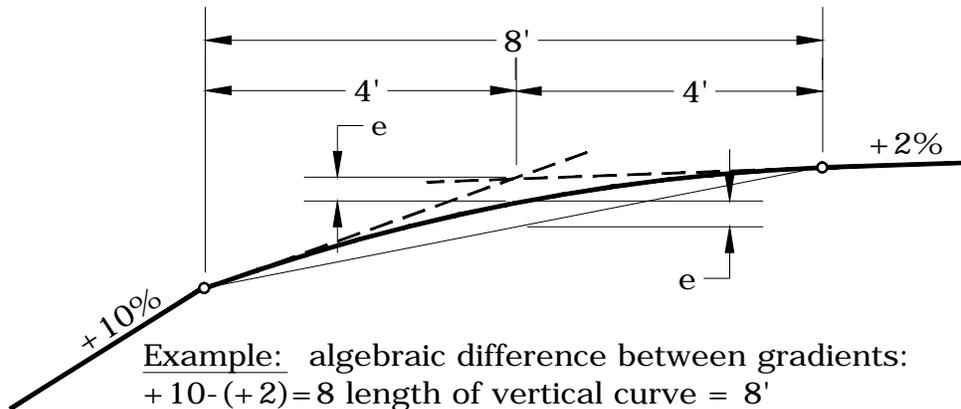
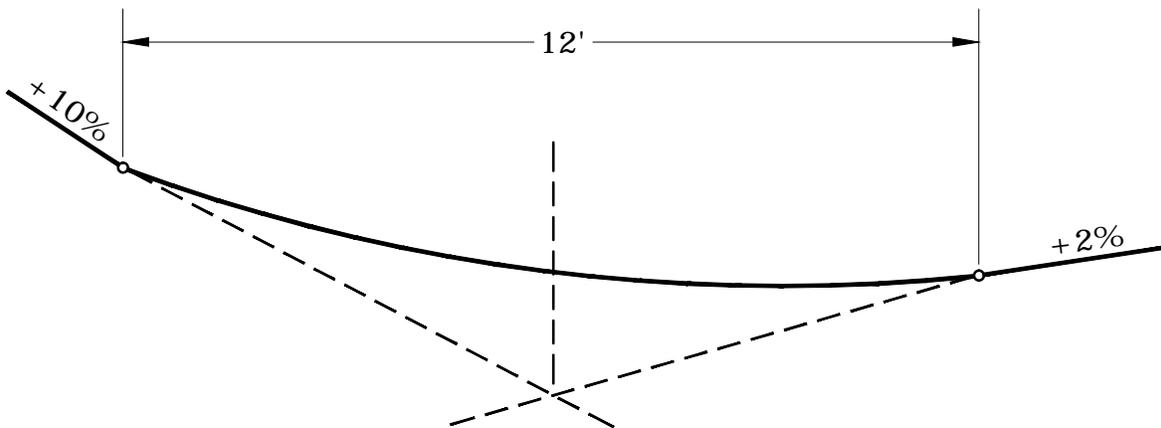


Example: algebraic difference between gradients:
 $+5 - (-6) = 11$ length of vertical curve = 11'



Example: algebraic difference between gradients:
 $+10 - (+2) = 8$ length of vertical curve = 8'



Example: algebraic difference between gradients:
 $-10 - (+2) = 12$ length of vertical curve = 12'

Notes: 1) to prevent contact between road surface and vehicle bumpers or under-carriage, crest or sag vertical curve must be used between tangents where the algebraic difference between gradients is greater than 9 percent. The minimum length of the curve must be 1 foot for each percentage point of difference between gradients, as shown above.



City of Lake Oswego
 Engineering Division

Guy Graham, P.E. Public Works Director
 City Engineer

VERTICAL CURVES FOR DRIVEWAYS (EXAMPLES)

DRAWING NUMBER: S4-04

Drawn: DB	Redrawn:
Design: JRB	Redesigned:
Checked: JRB	Update: KBK
Scale: N.T.S.	Update Check: DK
Date: 6/16/98	Date/Update: 11/08/12