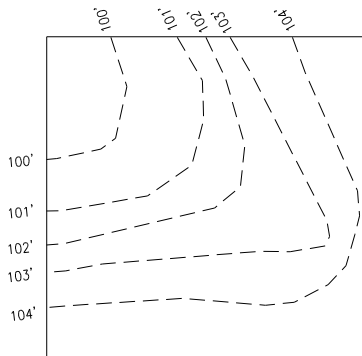


Site Grading Exercise

Calculate distance between contours in plan that will need to be used for the following conditions:

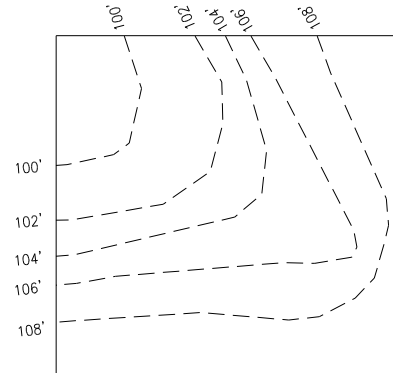
Plan A



2% slope =
8% slope =
20% slope =

5% slope =
10% slope =

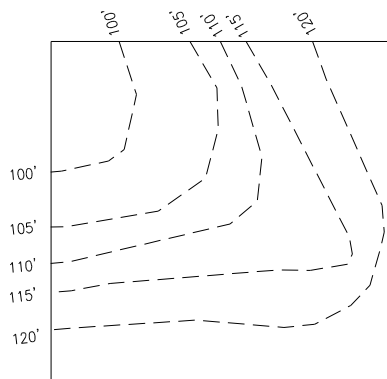
Plan B



2% slope =
8% slope =
20% slope =

5% slope =
10% slope =

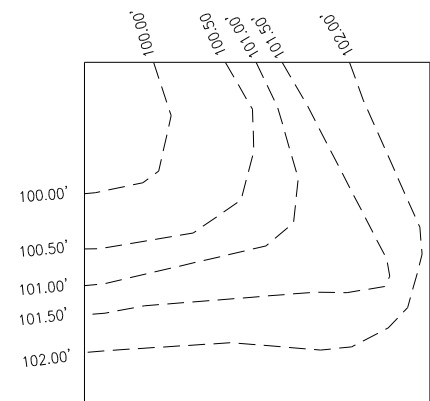
Plan C



2% slope =
8% slope =
20% slope =

5% slope =
10% slope =

Plan D



2% slope =
8% slope =
20% slope =

5% slope =
10% slope =

Alternative Practice Problem SG90509

This practice problem is not exactly what you find on real exam, this is an exercise for practicing grading for the roads only.

First part of the exercise is about calculating different distances between contours for a variety of situations. Keep this sheet to continue doing exercises in NCARB software by replacing background files one at a time.

In a zip file AASG90509.zip you will find the following files:

SG90509.pdf – print the program and do exercise on a first page

B3tut2W1_01.dwg – rename files by deleting _01 and replace in NCARB 3.1 software

B3tut2W1_02.dwg – rename files by deleting _02 and replace in NCARB 3.1 software

B3tut2W1_03.dwg – rename files by deleting _03 and replace in NCARB 3.1 software

Review the following screens in NCARB software prior to beginning your solution:

Vignette directions
Tips

Program 1

Corresponding file is B3tut2W1_01.dwg

Design drainage for a pedestrian walkway in the city park.
The walkway shall be uniformly sloped, with positive drainage to the side.
Provide swales where indicated.
Soil disturbance on the slope shall not exceed 10%.

Program 2

Corresponding file is B3tut2W1_02.dwg

Design drainage for a roadway.
Regrade the site to provide positive drainage to the sides.
Maximum slope for all elements (swale, roadway and site re-grading) is 8%.

Program 3

Corresponding file is B3tut2W1_03.dwg

Design drainage for a roadway per profile below.

The walkway is 6" higher than roadway. Water shall be carried away in a swale where indicated on the plan.

Maximum slope for roadway and walkway is 5%.

Maximum slope for ditch is 20%.

Soil disturbance outside R.O.W (Right Of Way) is not allowed.

