Practice Exercise 2
Create a Grading Group and TIN Volume Surface

This exercise provides you with practice for creating a grading group and a TIN volume surface. You'll use the concepts you learned in Lesson 2: Surfaces and Grading.

Instructions:

1. Open the file **Practice Exercise 002.dwg**.
2. Create a point group for points with raw desc matching GS*.
3. Create a surface from the point group with the raw desc matching GS* (Name Surface EG).
4. Create a grading group using the following criteria and beginning with the feature line provided:

   Grading Group – Automatic surface creation

   Tessellation spacing: 10

   Tessellation angle: 3

   Volume base surface: EG

   Inside: Grade to relative elevation –3' at 3:1 slope.

   Infill inside relative elevation criteria.

   Outside: Grade to surface at 5:1 slope for both cut and fill.
5. Create a Tin Volume surface with the EG surface as the base surface and the grading surface as the comparison surface.

Once you have completed these steps, please answer the following questions (Precision 0.01):

- What is the 2D surface area of the EG surface?
- With cut and fill factors of 1, what is the fill (adjusted) in cubic yards of the volume surface?
- What is the spot elevation on the EG surface at the center of circle A?
- What is the percent slope along line B on the EG surface from 1 to 2?