

CIE-365 Spring 2022: Homework assignment 1

Due date: 01/24/2022 at 10:00 AM

Possible points: 30

Answer the following questions based on the presentation given by María Limas and the contents of Module 1.

1. [O1] (6 points) List three aspects of Maria's geotechnical engineering presentation that you found most interesting. Please elaborate on your response in 100-word paragraphs.
2. [O1] (8 points) Describe the soil transportation processes depicted in Figure 1. What can you expect from these soils in terms of grain shape and size distribution?

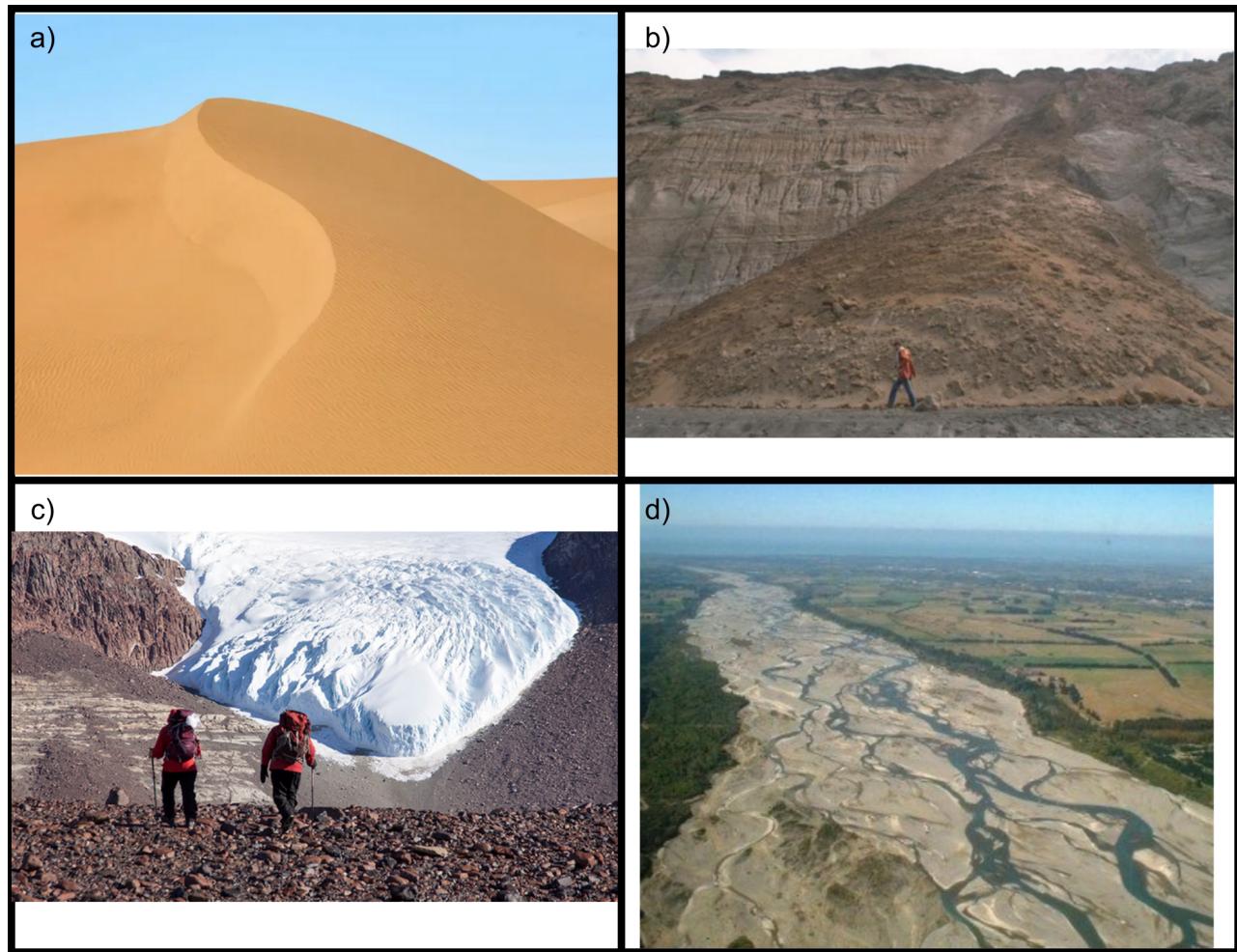


Figure 1: Figure depicting different soil deposits for question 2

3. [O1] (12 points) Make a conceptual map of the various forms of transported sediment, identifying key features discussed in class.

4. [O1] (4 points) You've been hired to determine the ideal location for a new hospital. Figure 2 depicts the areas preselected by the developers in order to maximize the value of the future project. Based on the soil deposits and possible geohazards shown in the illustration, what would be your recommended site? In a paragraph of roughly 100 words, justify your answer.

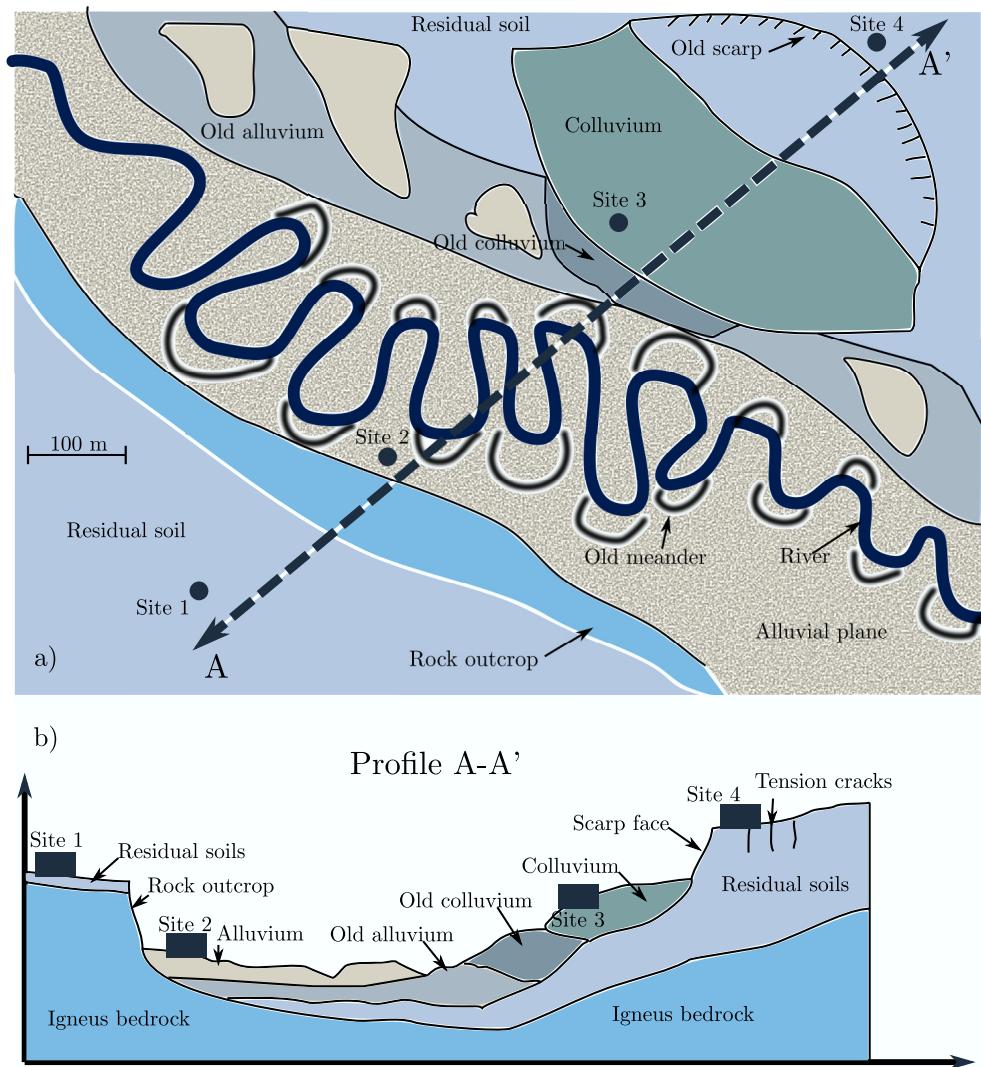


Figure 2: Schematic geological model showing the possible sites for construction for question 4. a) Local geological map, b) Geological profile. Note: Figures are not at scale.

Note: [O1] indicates the course objective that is partially covered by this assignment.