

Homework Assignment #5

The following penalties will be levied for late submissions: - 10 points for the first day and -5 point for each additional day of lateness up to the return date.

- 1) **(6pts)** List and explain the 3 types of foundation available for a house.
- 2) **(6pts)** Explain what is needed in a vented crawl space.
- 3) **(4pts)** Why would coarse sand, gravel or crushed rock be placed under a foundation or footing?
- 4) **(5pts)** What is frost heaving? What makes it occur? How can you not make it occur?
- 5) **(6pts)** List the six characteristics of a drainage system.
- 6) **(5pts)** Describe the design criteria for a sump pump for a basement?
- 7) **(5pts)** Explain what is needed for a pressure system to control soil gases (i.e. radon)?
- 8) **(4pts)** List and explain the differences between an exterior door and an interior door?
- 9) **(5 pts)** List and describe the 9 different types of interior doors.
- 10) **(5 pts)** List and describe the different types of windows.
- 11) **(9pts)** Design a stairway with a total rise of $9' - \frac{1}{2}"$. Follow all rules of design for a stairway. Show calculations and elevation plan view of stairway. On the elevation plan view, be sure to include handrail and stair data chart showing
 - 1) total rise
 - 2) total run
 - 3) stair rise
 - 4) stair run
 - 5) stair angle
 - 6) other pertinent information