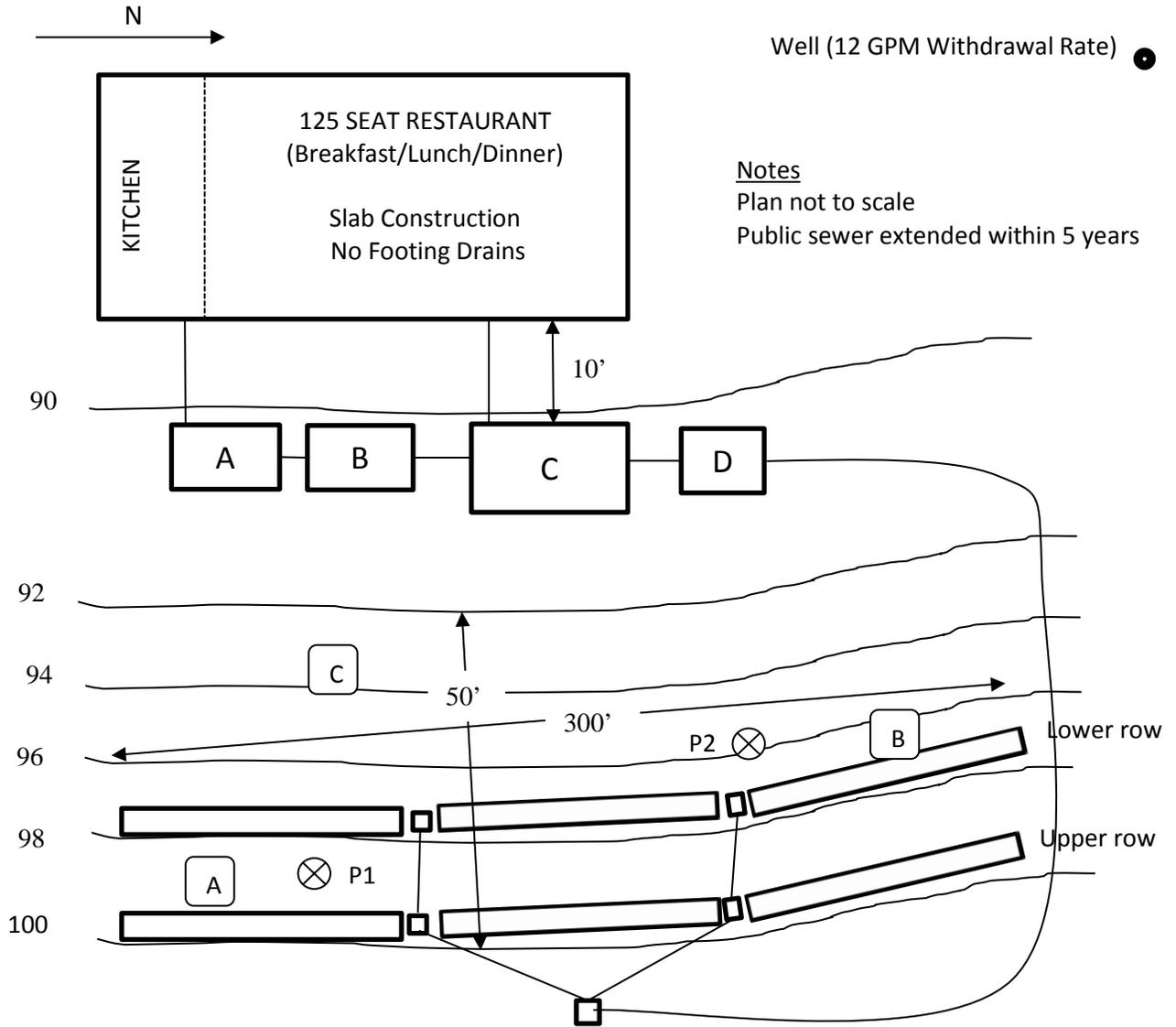


**SUBSURFACE SEWAGE PROGRAM**  
**CLASSROOM EXERCISE #3 (PHASE 1)**

The plan attached includes a septic system design for 125 seat restaurant (with public bathrooms). The building is new construction. Answer the following questions below based on your review of the plan.

1. What is the daily design flow? \_\_\_\_\_(gpd)
2. How much effective leaching area (ELA) is required? \_\_\_\_\_(sq ft)
3. How much effective leaching area (ELA) is provided? \_\_\_\_\_(sq ft)
4. Determine the average slope (gradient) of the ground in the leaching system area. \_\_\_\_\_(%)
5. What is the general direction of the downhill slope (gradient) of the property? north south east west
6. Based on the deep-hole test pit data, what is the maximum depth the bottom of the leaching system can be located below original grade? \_\_\_\_\_(inches)
7. Is the proposed bottom of system depth acceptable? \_\_\_\_\_(yes/no)
8. Determine the minimum leaching system spread (MLSS) for the system:  
$$\text{MLSS} = \text{HF} \text{_____} \times \text{FF} \text{_____} \times \text{PF} \text{_____} = \text{_____} \text{ (feet)}$$
9. Does the design meet the MLSS requirement for the proposed restaurant? \_\_\_\_\_(yes/no)
10. List the type of tank and minimum size required for each of the four (4) tanks shown on the plan.  
Tank A \_\_\_\_\_ Tank B \_\_\_\_\_  
Tank C \_\_\_\_\_ Tank D \_\_\_\_\_
11. Are the tanks located at an acceptable distance from the restaurant building? \_\_\_\_\_(yes/no)
12. Determine the minimum drop required for the 6-inch diameter building sewer pipe from the building foundation to the Tank C inlet.  
\_\_\_\_\_ (inches) \_\_\_\_\_ (feet)
13. What is the minimum separation distance required between the private well and the following:  
Leaching system \_\_\_\_\_(ft) Septic Tanks \_\_\_\_\_(ft) Building Sewer \_\_\_\_\_(ft)
14. Is a reserve septic system area required to be shown for this plan? \_\_\_\_\_(yes/no)
15. Based on the layout and bottom elevations of the proposed leaching system, what type of distribution is being provided? \_\_\_\_\_

# CLASSROOM EXERCISE #3 (PLAN)



<p><u>TEST PIT A</u> 0-22" FINE SANDY LOAM 22-76" MEDIUM SAND NO LEDGE MOTTLING @ 38"</p>	<p><u>TEST PIT B</u> 0-21" FINE SANDY LOAM 21-70" MEDIUM SAND NO LEDGE MOTTLING @ 36"</p>	<p><u>PERC RATES</u> P1 = 9 MIN/INCH @ 16" DEEP P2 = 3 MIN/INCH @ 32" DEEP  DATE 5/1/2018</p>
<p><u>TEST PIT C</u> 0-21" FINE SANDY LOAM 21-82" MEDIUM SAND LEDGE @ 82" MOTTLING @ 39"</p>	<p><u>PROPOSED LEACHING SYSTEM:</u> TWO (2) ROWS OF ELJEN MANTIS 536-8. EACH ROW HAS A TOTAL OF 300 LINEAR FEET <u>OR</u> THREE (3) 100 FT ROW SEGMENTS.  UPPER ROW: BOTTOM OF SYSTEM ELEVATION @ 98.5' LOWER ROW: BOTTOM OF SYSTEM ELEVATION @ 96.5'</p>	