

CMGT 235 – Electrical and Mechanical Systems

In Class Activity #4 – Plumbing Plans and Specifications

Points: 50 [2 points each properly formatted answer]

Due: At the End of Class Today

WRITE NEATLY

Check One: Worked with a: ☐ Partner ☐ INDIVIDUAL

| | |
|------|--|
| Name | |
| Name | |
| Name | |

- To answer the following questions, you will need to access electronically the HomeGoods Distribution Plumbing Plans (P-101, P-102, P-103, P-104, P-202, P-203, P-204, P-205, P-206, P-207, P-208, P-209, P-210) and HomeGoods Distribution Specifications. See: <https://lorisweb.com/cmgt235.html>
- Format for answers. Write answer and directly below clearly indicate the location it was found (be specific).
Example Answer:
Sanitary Waste Piping
P-102 Plumbing Schedules – Plumbing symbol legend

Plan Questions

1. What size is the cold-water supply pipe for the water closet in the Guardhouse?
2. What is the storage capacity for EWH-2?
3. What is the required minimum slope for sanitary and drainage piping 3" and larger?
4. What is the GPF for WC-1H?
5. What is the Horsepower (HP) for the HWR Pump?

6. What is the outlet pressure for the RTU pressure regulator?
7. What is the point of discharge for the 10" Emergency Rain Leaders on the main office roof?
8. What size gas supply pipe is shown for RTU-B34?
9. Where is EWH-1 located?
10. Where must the Water Hammer Arrestors (WHA-D, WHA-E, and WHA-F) be installed?
11. What supplies the emergency shower (ES-1) with hot water?
12. What size waste pipe is shown for the shipping office LAV-2?
13. What is the total number of urinals installed in the men's restroom A51?

14. What size are the CW and HW supply pipes for the Kitchen Sink (KS-1) in the Coffee Room (A19)?

15. What is the minimum size waste line for water closets?

16. What is an FD - "AR"?

17. What size aerator must be installed on the faucet for the Kitchen Sink (KS-1)?

18. What is the total DFU for the Waste & Vent Riser 1/P-209?

| Fixture | QTY | DFU (Each) | DFU (Total) |
|---------|-----|------------|-------------|
| WF-1 | | | |
| 2" FD | | | |
| MS-1 | | | |
| WC-1 | | | |
| WC-1H | | | |
| UR-1 | | | |
| UR-2 | | | |
| DF-1 | | | |
| TOTAL | | | |

Specification Questions

19. Who are the acceptable manufactures for plumbing fixtures?

20. What is required for testing the entire gas piping system?

21. What shall be the minimum spacing between pipe hangers for $\frac{3}{4}$ " – 1" gas pipe?
22. What shall the sleeves for pipe penetrations be?
23. For plastic pipe installed in soil what is the minimum depth for the layer of sand?
24. For domestic hot water what is the required insulation thickness for pipe sizes 2-1/2 to 4 in.?
25. What type of pipe is the basis of design for domestic cold water and hot water systems above ground?