

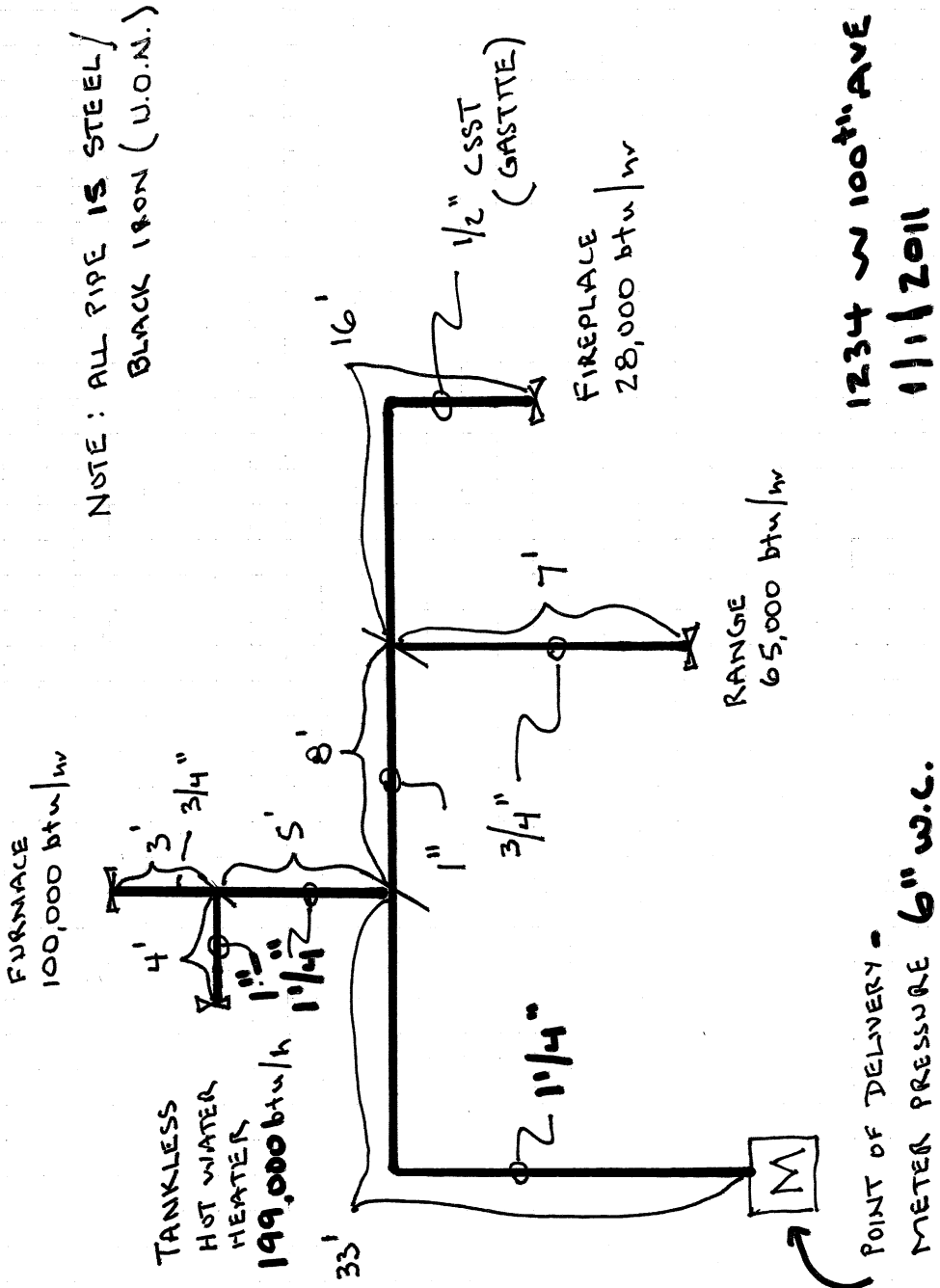


## GAS PIPE PLAN SUBMITTAL REQUIREMENTS

- The City of Westminster requires a gas pipe plan to be submitted for any new gas line work or when the input btu/hr of a replacement appliance is larger than the appliance it is replacing. A copy of the City approved stamped plan must be onsite prior to the inspection.
  - For counter permits (new lines for stoves, fireplaces), the City requires the gas pipe plan to be uploaded at the same time the application is submitted.
  - For new builds (new homes, etc.), the City requires that the gas pipe plan be uploaded for review and approval a minimum of two weeks prior to requesting an inspection of the work.
- If calculations are not provided with the online permit application, gas pipe sizing will be evaluated by the City in accordance with the capacity tables and longest-branch/branch-length methodologies. These methodologies are defined in Appendix A of the 2015 IRC or 2015 IFGC.
- The conversion factor for btu/hr to cfh is per 2009 I-Codes section A.2.1, which reads “*To obtain the cubic feet per hour of gas required, divide the total BTU/h input of all appliances by the average btu heating value per cubic foot of the gas*”. Per Xcel Energy, the average btu/hr heating value per cubic feet of gas for Westminster is 831 btu/h per cfh. The City is currently under the 2015 I-Codes which do not incorporate the use of an altitude derate factor.
- Appendix A of the IRC and IFGC provide numerous examples of gas pipe plans and examples of how to size gas pipe. At a minimum, the gas pipe plan must provide the following information:
  - Indicate the meter delivery pressure. Xcel Energy provides three pressures in Westminster, 6" w.c., 12" w.c, and 2 psi.
  - Provide a drawing of the gas system. The drawing does not need to be an isometric nor does it have to be computer drawn.
    - If connecting onto an existing system, show the entire tree structure of the existing system.
    - If run as a separate feed from the meter (connection within 1 ft of meter), only the new line needs to be shown in its entirety. Do indicate where the branch to the existing portion of the gas pipe system ties in and indicate with a note “existing house system” or similar.
  - Provide the input btu/hr data of each appliance that is connected to the same distribution system as the new appliance, and note this value on the plan adjacent to each appliance location. Do NOT show input values as cfh; do not convert btu/h to cfh on the gas plan.
  - Identify all pipe as to type (i.e. steel/ black iron, CSST, etc). If CSST, indicate the manufacturer.
  - Provide the lengths of each pipe segment. A pipe segment is the pipe that runs from the meter to the first branch point, or from branch point to branch point, or from branch point to appliance shut-off valve. As an alternative, identify the total developed length from the meter to each and every appliance.
  - Indicate the diameter of the pipe (ID).
  - Indicate the address of the project and indicate the date of the drawing.
  - If providing just the gas plan, provide a contact name and phone number on the gas plan.



# SAMPLE GAS PIPE PLAN



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