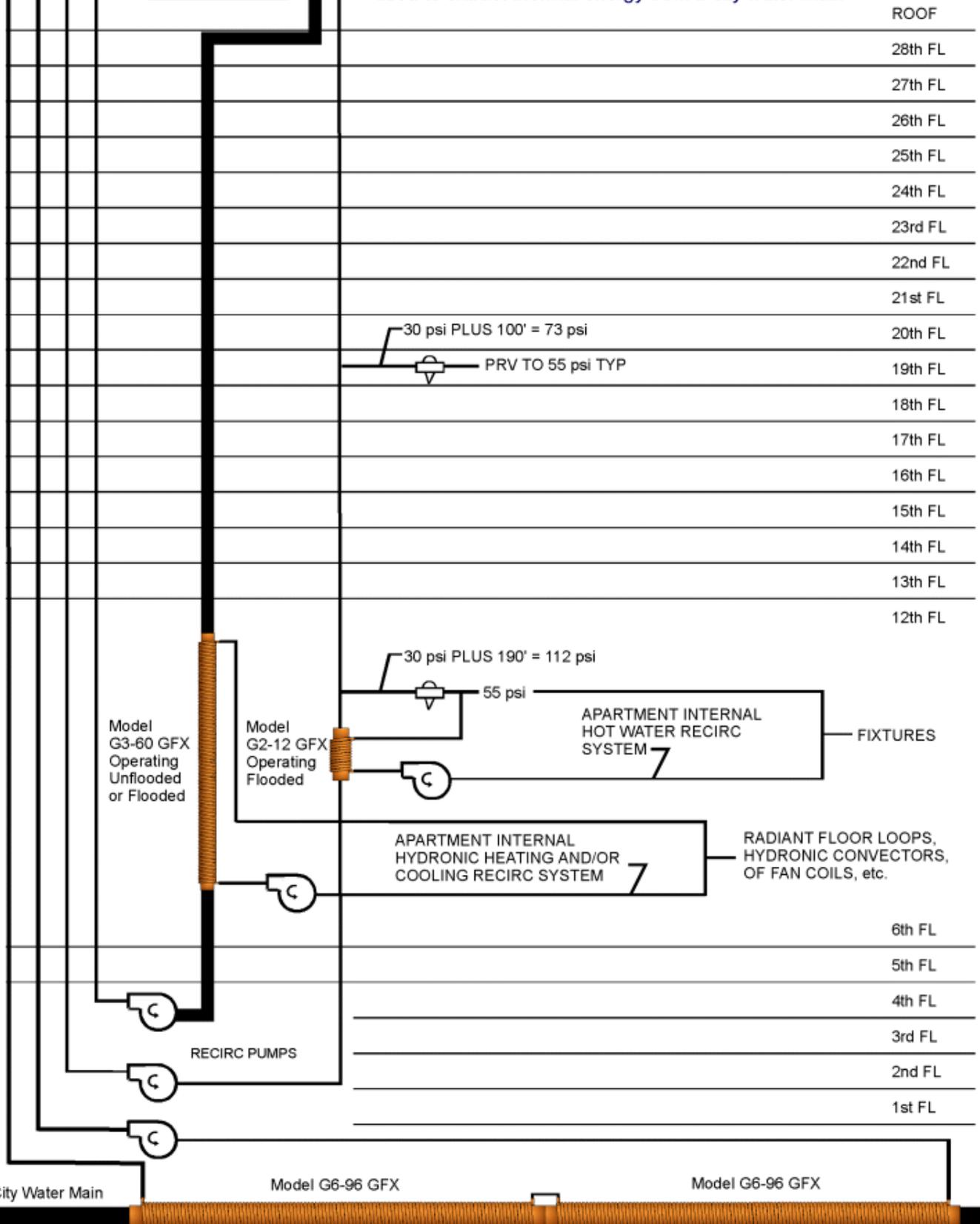


COLD WATER SUPPLY AT 30 psi

POTABLE HOT WATER & HVAC GEOTHERMAL SYSTEM

Combined Space & Water Heating

Model G2-12, G3-60 & G6-96 GFX's can provide space heating/cooling & instant hot water while conserving water & energy wasted in conventional recirc loops having inline heaters --- with a Geothermal Heat Pump used to extract thermal energy from a city water main



- ROOF
- 28th FL
- 27th FL
- 26th FL
- 25th FL
- 24th FL
- 23rd FL
- 22nd FL
- 21st FL
- 20th FL
- 19th FL
- 18th FL
- 17th FL
- 16th FL
- 15th FL
- 14th FL
- 13th FL
- 12th FL
- 6th FL
- 5th FL
- 4th FL
- 3rd FL
- 2nd FL
- 1st FL

City Water Main

Model G6-96 GFX

Model G6-96 GFX

Water+® Geothermal HVAC Systems

Water+ is an alternative energy system that dramatically lowers energy bills while helping protect the environment. An “exciting” innovation in geothermal technology, **Water+**, uses a city utility’s water main as an earth loop to transport thermal energy stored in the ground to geothermal heat pumps within a home or commercial building. (See www.waterplus.com/ & the following Q&A’s below from www.waterplus.com/faq.html)

Problems Affecting Public Safety

Q: Is there a need for double wall heat exchanger?

A: We do not recommend double wall heat exchangers to be used in conjunction with the water+ system. The only installations currently using double wall heat exchanges are the direct return systems. **They reduce operating efficiency enough to put added load on the water plant.** It is an option but should be a last resort due to the increased cost and reduced efficiency.

Q: What happens if the heat exchanger is breached?

A: A typical water+ system has two completely separate loops: the municipal water loop and the building loop. **Ninety-nine percent of the time** if a heat exchanger fails, both fluids would leak to the floor, indicating the need for repair. In the extremely rare event of a breach, the building loop is designed to run at a much lower operating pressure than the municipal water loop. The breach would cause the building loop to over pressurize. A pressure relief valve would immediately open allowing the building loop water to dump down the sanitary sewer and once again indicating the need for repair. The heat exchangers used in this system are designed to handle over 400 PSI. Most water systems operate at much lower pressures, 40-70 PSI. It is conceivable that several ounces of mineral oil could get into the water stream. In addition, there can be some freon entry. The mineral oil is of low volume, while not certified as food grade, it is **relatively safe**. The freon is one of advanced materials and will outgas leaving no residue.

WaterFilm Energy’s Innovative Solution Eliminates Need to Compromise Public Safety



Figure 1. S3-60 GFX

A self-vented, double wall GFX will protect against even a “**relatively safe**” threat to Public Safety 100% “**of the time**”; without reducing “**operating efficiency enough to put added load on the water plant.**” Figure 1 shows why. Since a GFX’s central tube wall is smooth, if its I.D. is matched to a water main’s at the point-of-use, there’s nothing to restrict flow. Therefore, a water plant will see no increase in back pressure, even if many GFX’s were to be inserted into a single main; be it a water main, sewer main or hot water recirc-loop.

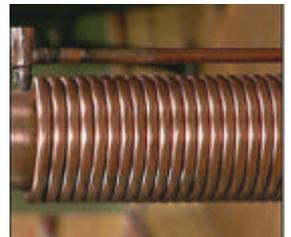


Figure 2. S3-60 GFX