Structured Plumbing with Hot Water Loop

The structured plumbing system for our house is too long



Water pipe layout under floor

for LEED points but it is based on the Gary Klein design for a looped trunk water supply and short delivery pipes from the main trunk. The hot water pipe returns to the water heater so that the entire pipe can fill with warm

water, wasting less water while waiting for the hot water to flow. An extra pump moves the hot water around the loop and it is triggered by remote control. The wait is two or three minutes to deliver hot water at the faucets without the water running down the drain.

Return
(¾ inch minimum)

Pump, Controls and
Thermo-sensor (in one
of these two locations)

Twig

Hot Water Piping

½ inch

Wide Radius Elbows

Figure 1 Structured Plumbing with a Dedicated Return line

Gary Klein design