TOPIC #1: WATER SUPPLY

WATER MAINS

In the City of Cincinnati, major water transmission mains are of various sizes ranging from sixty (60) inches down to sixteen (16) inches. Mains are largely cast iron with concrete in the larger sizes. Distribution mains may vary, from a very small amount of three (3) inch pipes still in use, up to twelve (12) inch pipes, with the six (6) inch size accounting for nearly 55% of the total.

Water mains are installed in a crisscrossed or grid pattern to facilitate a more even distribution and better over all pressure. There are, however, locations too numerous to list where the system is not in a grid pattern and fire hydrants are installed on spur or dead end mains. This situation is always a potential source of trouble in case of a major fire in the vicinity. These areas must be recognized by all company officers in their respective response areas.

All companies should keep a record and have a general working knowledge as to the size main of each of their respective hydrants, as well as it's static pressure, flow pressure, and gallons per minute.

The table below will give a general idea of the static pressure of the fire hydrants in the various areas of the city.

SERVICE	STATIC PRESSURE		
	Average	Maximum	Minimum
Entire City	87	230	35
Central Service	59	72	43
Principal Business District	50	63	43
Eastern Hills	118	192	35
Western Hills	76	230	36
California	78	80	77
Mt. Washington	78	88	63

HIGH PRESSURE DOESN"T ALWAYS EQUAL HIGH GPM FLOW. This will be discussed in detail in "Hydraulics".