Fire protection hydraulics and water supply



Primary feeders, Secondary feeders, and the Distributors are three classes of mains that are associated with a water distribution system.

Primary feeders are water distribution systems that are made up of large pipes that are widely spaced relative to each other. They are majorly used in conveying water to different parts of a building and for local distribution to the miniature network of pipes in the building and they convey water to these respective regions in large quantities. They are more reliable when two or more primary feeder systems are extended by independent means from the supply source to the most important regions of the municipality (Brannigan & Corbett, 2008).

Secondary feeders are water distribution systems that are made up of a network of pipes that are quite smaller in size to the Primary feeder system. They strengthen the water distribution system and are surrounded by different sections of the primary feeder system. The Secondary feeder system helps in the full concentration of water and control the rate of fire flow that is required at a particular region in a building. It is necessary to give two water delivery directions to any spot; hence the secondary feeder system must be arranged in loops (Brannigan & Corbett, 2008).

Distributors are the smallest class of the water distribution system as they consist of much smaller mains when compared to the primary and secondary feeder system. The distributor system is mainly used for specific fire hydrants and individual units of users(Brannigan & Corbett, 2008).