



Sump Pumps

Sump pump systems are designed to capture surface or ground water that enters basements or crawl spaces and pump it away from the house. The basic sump system includes an exterior (and optional interior) perimeter drain system, a sump pit, a sump pump with a float or switch and a drain line. The sump pit extends below the floor slab and collects surface water that enters the basement/crawl space or ground water that rises to the slab.

Most Chaska homes and businesses are built on heavy clay soils that do not allow for water infiltration. For that reason, most buildings have a sump pump system to direct the water collected from the soil around the building outside to their yard or city street. The trouble comes when a flexible hose from the sump pump discharges, what other wise is known as clear-water, to a laundry tub or basement floor drain; this is a called a cross connection. Wastewater that goes down drains in your house lead to the City's sanitary sewer system and eventually ends up at a wastewater treatment plant, where it is treated before being released back into the environment.

Discharging sump pump water, into a sanitary sewer system is illegal and can seriously overload the system. During March through October clear water increases the flow through the system one to two times the usual amount, primarily because of cross connections. During heavy rainstorms there have been peak events of 3 to 4 times the normal flow. The Metropolitan Council reports that a sump pump can contribute 7200 gallons of clear-water to the wastewater system in 24 hours, the equivalent of the normal flow from 26 houses. Sanitary sewer rates are based on the number of gallons that flow through the cities sanitary sewer collection system and into the Metropolitan Council Environmental Service (MCES) wastewater treatment facilities. Chaska pays a significant surcharge to treat clear-water and is reflected in the sewer bill of every Chaska resident.

Unchecked clear-water inflow and infiltration (termed I & I) can quickly consume the sewer system's capacity and ultimately be overwhelmed, causing among other things, sewer back-ups into houses. The system can eventually overflow from manholes causing flooding of raw sewage into the environment. This creates health and safety issues that would have significant costs associated with it.

Chaska is proposing to initiate a Sump Pump Inspection Program similar to many cities in the metropolitan region, as a partial solution to the I & I issue. The goal of this program will be to reduce the amount of clear-water I & I into our sanitary sewer system. This will ultimately reduce the cost of treatment, maintenance of the wastewater treatment plant equipment and postpone plant expansion projects.

Sump Pumps (cont.)

The program will be set up by neighborhood. Each individual property owners will receive a letter requesting the owner or renter to contact the I & I inspector to set up a convenient time to complete a compliance inspection, even though they might not have a sump pump. The inspector will have to have access to the inside of the property and will be concerned **only** with the sump pump connection. If a property owner is uncomfortable with such an inspection, they may hire a MN licensed plumber to certify their system. The City does not charge a fee for an inspection that it completes. Appointments may be scheduled from 7:30 AM to 3:30 PM Monday thru Friday; it will take approximately 15 minutes and a responsible adult must be present. Once it has been determined that the property does/does not comply with Chaska's sump pump ordinance, the property will be documented either as pass or fail. The City will work with property owners to bring systems into compliance.

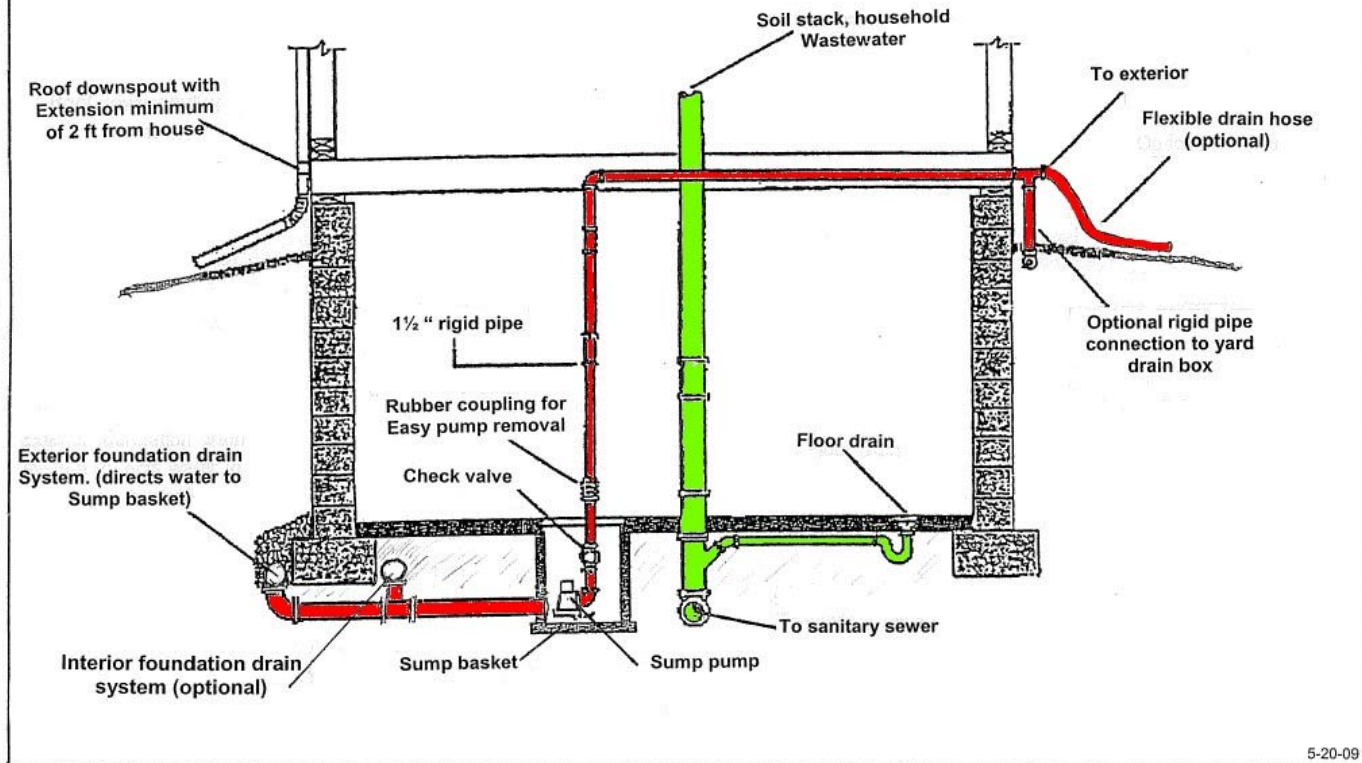
Chaska Code of Ordinance Chapter 19, Article IV, section 63 & 64,
amendment #801

<http://www.metrocouncil.org/environment/projectteams/documents/InflowInfiltrationFacts.pdf>

EXAMPLE ONLY

PROPER SUMP PUMP CONNECTION

Note: No connections allowed between the (Red) sump pump discharge and the (Green) City sanitary sewer



EXAMPLES OF ILLEGAL SUMP PUMP CROSS CONNECTION

