

Figure 12. Insulated Pumphouse Enclosing Pressure Tank,

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## DEPARTMENT OF NATURAL RESOURCES



Figure 14. Pump Installations using Submersible Pumps and Approved Above-Ground Discharge Unit.



Figure 15. Alternative Pressure Tank Location with Submersible Pump Installation and Approved Above-Ground Discharge Unit,

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## 68-44 WISCONSIN ADMINISTRATIVE CODE

(5) RESERVOIR CONSTRUCTION. (a) A subsurface ground storage reservoir may be used to store water for drinking and other domestic purposes providing that it is constructed in accordance with the following minimum specifications:

1. Floor. The floor of a reservoir shall be reinforced poured concrete with a thickness of at least 5 inches and a curbing wall 6 inches high and 6 inches thick, having a keyway for a construction joint with the walls. Any pump supply pipe and service pipe planned to extend through the floor, any copper water stop strip for the wall construction joint, and any reservoir drain facility shall be installed during the time of pouring the concrete floor.

2. Walls. The walls of a reservoir shall be reinforced poured concrete at least 6 inches thick. Should it be planned to install the pump supply pipe to the reservoir through a wall and to install the service line pipe in a wall as opposed to installation of the units in the reservoir floor, the pipe fittings for such units shall be installed at the time of pouring the walls so as to effect a watertight joint.

3. Roof. The roof shall be reinforced poured concrete at least 5 inches thick. An access manhole at least 24 inches in diameter or 24 inches square shall be constructed as an integral part of the reservoir roof. The manhole shall have a curbing wall extending at least 12 inches above the earth covering the roof or at least 6 inches higher than the roof, if the roof is not buried. The manhole curbing preferably shall be constructed entirely of 4-inch thick reinforced poured concrete, but may be partially steel or cast iron. The curbing shall be provided with a snug fitting, overlapping cover with a minimum of 3-inch wide skirted sides. The cover preferably shall be constructed with welded sheet steel but may be constructed with reinforced poured concrete.

4. Overflow. An overflow pipe, if used, shall be located just under the roof of the reservoir entirely above grade and terminate with a down-turned pipe at a point at least 12 inches above the ground grade. The pipe shall have a screened outlet. The overflow pipe shall be of sufficient diameter to permit waste of water at a rate in excess of the well pump operating capacity.

5. Vent pipe. A vent pipe shall be installed whenever the roof of the reservoir will terminate below the ground surface or at an inadequate distance above grade to permit installation of an overflow pipe in a reservoir wall just below the roof. The diameter of such vent pipe shall be large enough so that it can act as an overflow pipe to permit waste of water in excess of the well pump operating capacity. It shall be installed in the reservoir roof at the time of construction of the roof and shall be encased with 6 inches of concrete from the top of the roof to the ground surface if the roof is buried. The vent pipe shall terminate with a "U" bend with screened outlet a minimum of one foot above the ground grade or top of the reservoir. (Note: See Figures 16 and 17 for acceptable pump installation with reservoir.)

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