

Bennington
Well**DEPARTMENT OF NATURAL RESOURCES
OF MISSOURI****REPORT ON ENGINEERING REPORT, PLANS,
AND SPECIFICATIONS FOR WATER SYSTEM****BENNINGTON SUBDIVISION
LINCOLN COUNTY, MISSOURI****August 13, 1998****Review No. 61264-98****INTRODUCTION**

An engineering report, plans, and specifications for a new water system for Bennington Subdivision, Lincoln County, Missouri, were submitted for review and approval by Fitch & Associates, consulting engineers, Troy, Missouri.

BRIEF DESCRIPTION

An engineering report for a new water system to serve Bennington Subdivision has been reviewed. The report was examined as to sanitary features which may affect the operation of the project, including size, capacities of units and factors which may affect efficiency and ease of operation. Approval of the engineering report as regards to these points is hereby given. This approval is valid for two years.

In general, these plans and specifications provide for a new water system, including a well, hydropneumatic storage tanks, and distribution system.

The proposed well will be located along State Route 47 in Section 29, Township 49 North, Range 1 West, Lincoln County. The well will be drilled to an anticipated depth of 1,200 feet and provided with 700 feet of 6 inch diameter steel casing. The annular space between the drill hole and the casing will be filled with neat cement grout under pressure, from the bottom upward in one continuous operation. A submersible pump having a capacity of 90 gallons per minute at 500 feet total dynamic head will be installed in the well. The well will be provided with the necessary breather pipe, depth gauge, valves, meter, discharge piping and other appurtenances as per detailed plans and specifications. The well will be disinfected and samples collected for bacteriological and chemical analyses.

Two hydropneumatic storage tanks will be provided. Each tank will be 6 feet in diameter by 24 feet in length with a capacity of about 4,765 gallons. The tanks will each be provided with an access hatch, drain, pressure gauge, water sight glass, air relief valve, air compressor and other necessary appurtenances and piping as shown on the plans. Normal operating pressure of the tanks will be 35 to 70 psi. The surfaces of the tank will be sandblasted and painted. The interior of each tank will be painted with coatings acceptable to the Department. Before being placed in service, the tanks will be cleaned, tested, disinfected and sampled for bacteriological analyses.

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The proposed water distribution system will consist of approximately 4,790 lineal feet of 4 inch Class 200 PVC pipe. The necessary valves, fittings and appurtenances will be provided as per detailed plans and specifications. Before being placed in service, the waterlines will be pressure tested, flushed, disinfected and sampled for bacteriological analyses.


J. Kenneth Zelk, PE



APPROVAL TO CONSTRUCT

The engineering plans and specifications described above were examined as to sanitary features of design which may affect the operation of the sanitary works, including size, capacities of the units, and factors which may affect the efficiency and ease of operation. Approval as regards these points is hereby given.

Approval is given with the understanding that final inspection and approval of the completed works shall be made by the Department of Natural Resources before same is accepted and placed in operation. If construction is not commenced two (2) years after the date of issue or there is a halt in construction of more than two years, the approval to construct will be void unless an extension of time has been granted by the department.

In the examination of plans and specifications, the Department of Natural Resources, Public Drinking Water Program does not examine the structural features of design or efficiency of mechanical equipment. This approval does not include approval of these features.

The Department of Natural Resources, Public Drinking Water Program reserves the right to withdraw the approval of plans and specifications at any time it is found that additional treatment or alterations are necessary to assure reasonable operating efficiency and to afford adequate protection to public health.