

140 HAVERHILL STREET, ANDOVER, MA SEWAGE FLOW CALCULATIONS

EXISTING BUILDING

The existing doctors park building was constructed in 1975 and houses 8 individual medical office units. Based upon conversations with the previous building owner, the building was 100% occupied by several different medical practices with over 30 doctors occupying the facility.

The best fit sewer flow estimate can be found in the Massachusetts Title 5 Regulations which govern the installation of subsurface sewage disposal systems. Section 15.203 established system flows and lists Doctor's Office as having a design flow of 250 gallons per day per doctor.

For this existing facility the daily sewage flow can be calculated as follows:

Number of Doctors x 250 gallons/day. = 30 Doctors X 250 GPD = 7,500 Gallons Per Day

PROPOSED BUILDINGS

BUILDING 1

The building being proposed is a 19,200 square foot building containing 4 individual medical suites with 2 doctors in each suite for a total of 8 doctors.

The best fit flow rate found in Title 5 for the smaller building would be for a Doctor's office at a flow rate of 250 gallons per day per doctor which equals 2,000 gallons per day.

BUILDING 2

The building is being proposed as a 17,688 square foot Day Care facility with a maximum occupancy of 195 students and 30 staff.

The flow listed in Title 5 for a Day Care facility is 10 GPD/Person. The calculated flow rate is $(195 + 30) \times 10\text{gpd/person} = 2,250$ gallons per day.

The total design flow for the proposed development is 4,250 Gallons Per Day

CONCLUSION

The proposed uses for the site will have a smaller sewage flow rate than the previously existing use at the site.