

Drainage Provision to be Made for Outlying Areas.

The areas heretofore described are generally high. Moreover, the existing development and the evident trend thereof clearly define these as future residential districts of normal suburban type. Excepted from this generalization, is the West Park-Columbia Addition which may include some industrial and wherein the density of the population is likely to be considerable.

These several factors have led to an estimate of sewage flow units as herein:

Average density of population, 12 per acre.
Average domestic sewage discharge, 40 gallons per capita.
Maximum domestic sewage flow, 100 gallons per capita daily.
Infiltration, 800 gallons per acre daily.

With the sewers designed to flow two-thirds full, or at 80 percent full capacity, these factors lead to the following unit of flow:

Domestic Flow at 12 per acre at 100 G.C.D.	= 1,200 G.A.D.
Infiltration	= 800 G.A.D.
Allowance for roof connections	= 500 G.A.D.
TOTAL	= 2,500 G.A.D.

At eight-tenths full capacity, this is equivalent to 3,130 G.A.D.; and leads to the allowance of 3,000 gallons per acre daily from normal residential territory. This provision is that upon which designs herein are based and is equivalent to a per capita allowance of 250 gallons daily. Although this unit quantity has been used as the basis of designs, in many cases the upper reaches of the subtrunks as planned will provide an excess owing to the use of adopted minimum sizes.

Designs for the present trunk sewers were based upon a normal domestic contribution of 2,750 gallons per acre daily. This rate was applied to all areas--urban and suburban--with the sewers flowing partly full. Industrial and commercial contributions increased the per capita flow.