

PROCEDURES FOR CALCULATING
THE SIZE OF THE WATER SERVICE LINE

The Metro District uses a modified version of the American Water Works Associations Manual 22. A description of the procedure and calculation forms follows.

Sizing Water Service Line and Meters

1. Fill in the fixture values for the fixtures that are being installed in the facility (Also fill out this form for existing fixtures in an existing structure.)
2. Fill in the combined fixture value total.

Figure 4.4 and Figure 4.5

1. Use the following information to determine The maximum allowable fixtures for 3/4" and 1" meters are:

Maximum fixture values for the following meter sizes.

<u>Meter</u>	<u>Fixture units</u>
3/4"	16 fixture units
1"	27 fixture units

2. In cases involving more than 27 fixture units combined fixture values on table 4.4 or 4.5 using the upper curve only to determine the gallons per minute demand.

Take the g.p.m value from the appropriate table and multiply it times the pressure factor from table 4.2. (Use pressure factor 1.46 from page P). (Example 40.0 g.p.m X 1.46 = 58.4 g.p.m.)

Tables 5.6 and 5.7

1. Go to table 5.6 and 5.7 to look up the allowable flow through a given water meter using the 80 % of the maximum capacity column to determine the size of the meter.

The following is the maximum allowable design flow through the various size meters. This applies to domestic as well as irrigation demands.

3/4"	24 g.p.m
1"	40 g.p.m
1-1/2"	80 g.p.m
2"	130 g.p.m

The installation of an irrigation system requires a separate tap and meter. The size of the tap and meter is based on the demand of the largest zone in the system.

Hose bibs on the outside of the structure need to be included on the water sizing calculation sheet in the upper portion as wash down.