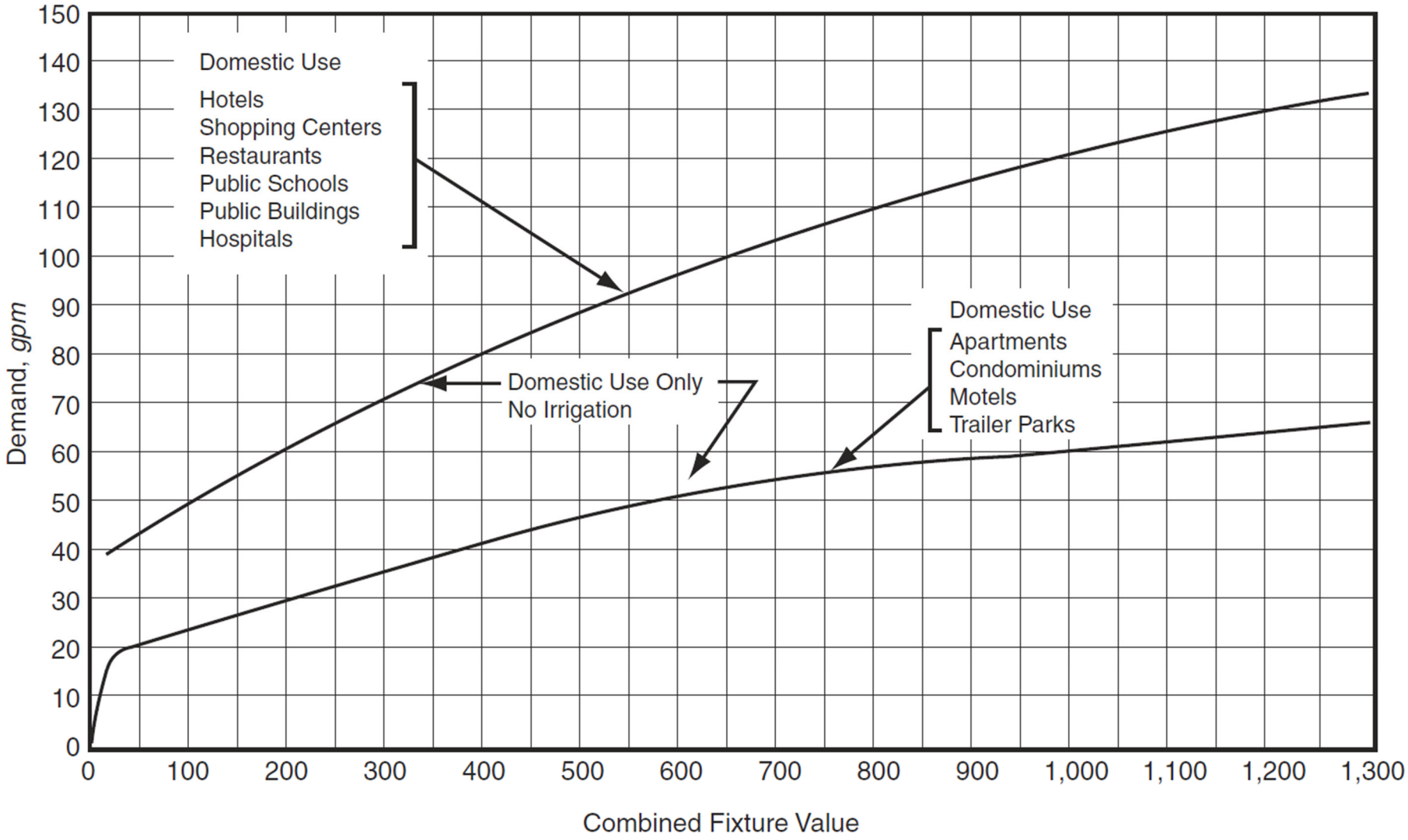
VAW (MAW) FIXTURE COUNT DATA SHEET

Service Address_____ **Type of Occupancy:**_____ **Date:**_____

Customer Name:_____ **Phone #**_____ **Email**_____

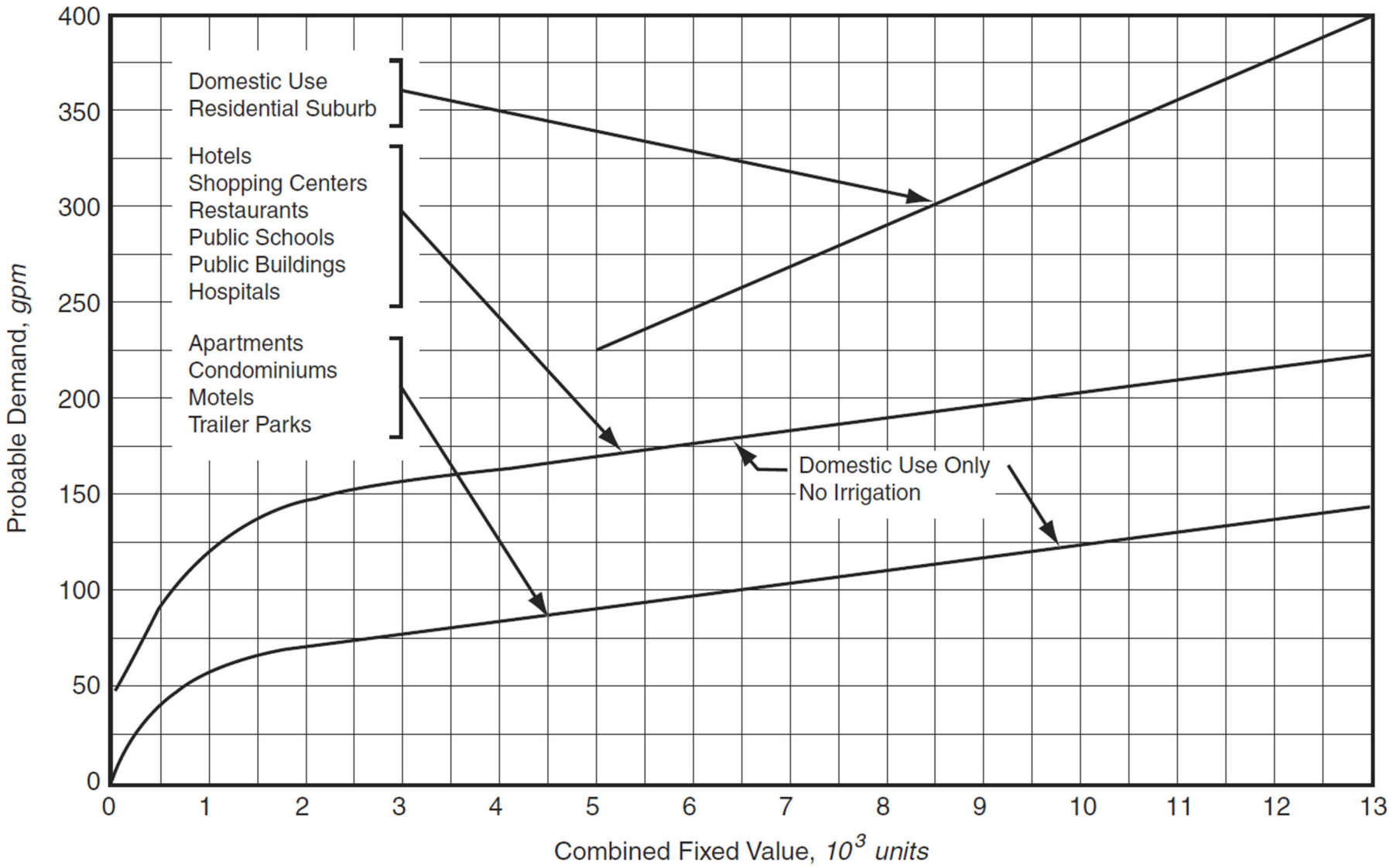
Fixture or Appliance	Fixture Quantity		Fixture Value @ 60psi (Refer to AWWA M22, 2nd Edition, Table 4-2)		TOTAL
Toilet- (Tank)		X	4	=	
Toilet- (Flush Valve)		X	35	=	
Urinal- Wall or Stall		X	16	=	
Urinal- Flush Valve		X	35	=	
Bidet		X	2	=	
Shower (single head)		X	2.5	=	
Faucet – Lavatory Sink		X	1.5	=	
Faucet – Kitchen Sink		X	2.2	=	
Faucet – Utility Sink		X	4	=	
Dishwasher		X	2	=	
Bathtub		X	8	=	
Clothes Washer		X	6	=	
Hose Bibs (w/ 50 ft. of hose) - 1/2"		X	5	=	
Hose Bibs (w/ 50 ft. of hose) - 5/8"		X	9	=	
Hose Bibs (w/ 50 ft. of hose) - 3/4"		X	12	=	
Bedpan Washer		X	10	=	
Dental Unit		X	2	=	
Drinking Fountain		X	2	=	
add other miscellaneous fixtures below (need to call out fixture value reference source) Fixture values reference source _____					
		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
			Combined Fixture Value Total		
			Customer Peak Demand (from Figure 4-2 or 4-3) (Please highlight selected point at figure curve)		_____ gpm
			Static Water Pressure at Meter Location _____psi; Pressure Adjustment Factor (from Table 4-1)		(_____)
			Adjusted Peak Demand (customer peak demand x Pressure adjustment factor)		_____ gpm
			Irrigation Demand (GPM) occur simultaneously with normal water use		_____ gpm
			Other fixed load water demand (GPM) for equipment runs simultaneously with normal water use		_____ gpm
			Total Estimated Peak Demand		_____ gpm
			Recommended Meter Size		_____ inches

Figure 4-2: Water-flow demand per fixture value – Low Range
Refer to AWWA Manual M22 (2nd Edition)



Update 5/27/2023

Figure 4-3: Water-flow demand per fixture value – High Range
Refer to AWWA Manual M22 (2nd Edition)



VAW (MAW) FIXTURE COUNT DATA SHEET

(refer to AWWA M22 second edition)

Table 4-1 Pressure adjustment factors*

Working Pressure at Meter Discharge (*psi*)	Average Flow from 50 ft of 5/8-in. Hose and Sprinkler (*gpm*)	Pressure Adjustment Factor
35	6.7	0.74
40	7.2	0.80
50	8.1	0.90
60	9.0	1.00
70	9.8	1.09
80	10.5	1.17
90	11.2	1.25
100	12.1	1.34

*derived from Table 4-1 and 4-2 of Manual M22 (1975).

NOTE: To convert psi to kPa: psi × 6.89476; to convert gpm to m^3/hr: gpm × 0.227.

Table 4-2 Suggested fixture values based on 60 psi (414 kPa)

Fixture or Appliance	Suggested Fixture Value, *gpm*
Toilet (tank)	4
Toilet (flush valve)	35
Urinal (wall or stall)	16
Urinal (flush valve)	35
Bidet	2
Shower (single head)	2.5
Faucet (lavatory)	1.5
Faucet (kitchen sink)	2.2
Faucet (utility sink)	4
Dishwasher	2
Bathtub	8
Clothes washer	6
Hose connections (with 50 ft of hose)	
1/2 in. (13 mm)	5
5/8 in. (16 mm)	9
3/4 in. (19 mm)	12
Miscellaneous	
Bedpan washers	10
Drinking fountains	2
Dental units	2

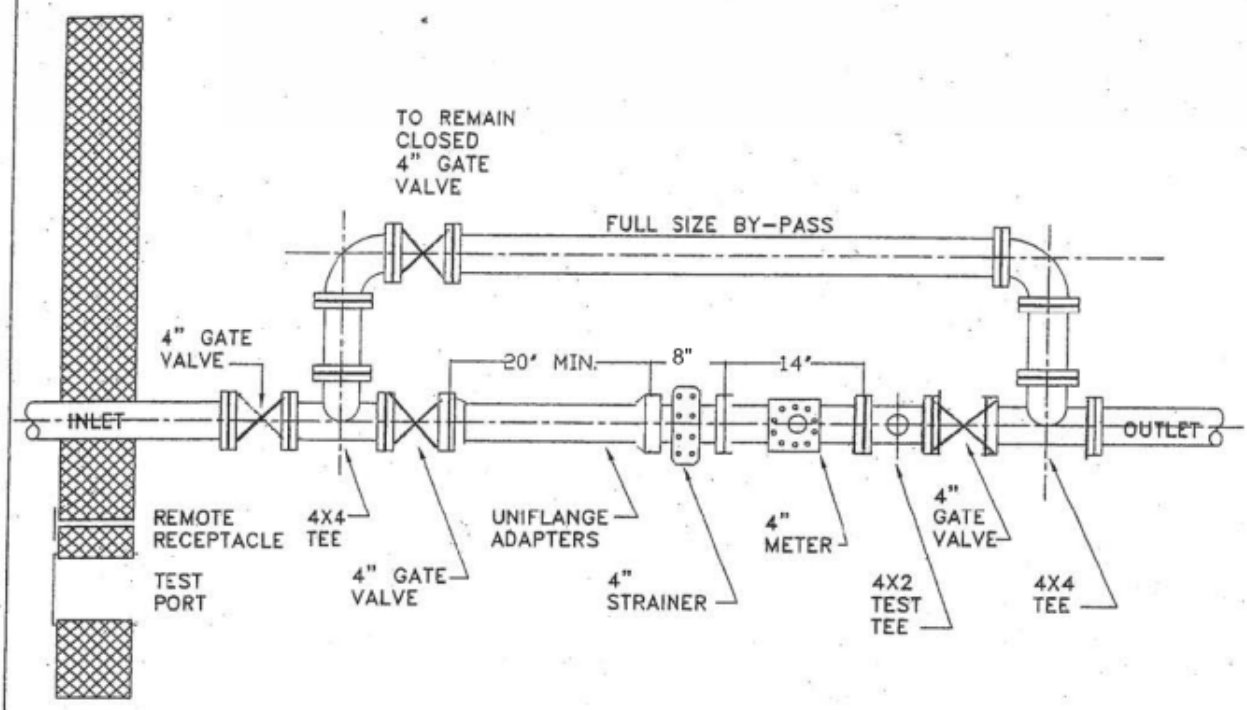
NOTE: To convert gpm to m^3/hr: gpm × 0.227.

VAW (MAW) FIXTURE COUNT DATA SHEET

VAW Recommended Meter Size Selection Table

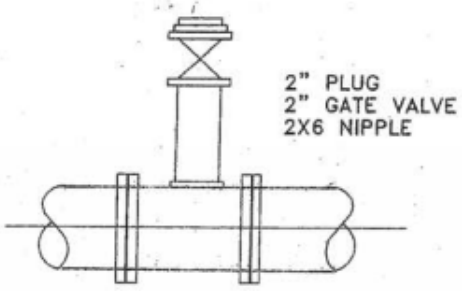
Total Estimated Peak Demand (GPM)	Minimum Meter Size (refer to AWWA M22 2nd Edition Table 6-1)	Minimum service line size (from Street main to meter yoke)
0-20	5/8” (outside 18” round meter pit)	3/4” copper pipe
21-30	3/4” (outside 18” round meter pit)	1” copper pipe
31-50	1” (outside 18” or 24” round meter pit)	1” copper pipe
51-100	1.5” (outside 36” round meter pit)	2” copper pipe
101-160	2” (outside 36” round meter pit)	2” copper pipe
161-360	Duplex-2” (outside 36” round meter pit)	4” ductile iron pipe
361-600	4” (inside meter setting see next page)	4” ductile iron pipe

VAW (MAW) FIXTURE COUNT DATA SHEET



NOTES:

1.) METER MUST BE LOCATED WHERE LINE ENTERS THE PREMISES.
2.) METER MUST BE ACCESSABLE BY WATER COMPANY.
3.) MAINTAIN 24" CLEARANCE AROUND WATER METER AND ANY OBSTRUCTION, OR WALL.
4.) THE DISTANCE FROM THE CENTERLINE OF THE METER FLANGES AND THE FLOOR MUST NOT BE LESS THAN 18" AND NOT MORE THAN 35".
5.) PROVIDE 1 " DIAMETER SLEEVE FOR INSTALLATION OF REMOTE WIRE.
6.) 6" CAPPED SLEEVE (OR ACESS TO DRAIN TO ENABLE TESTING OF METER "IN PLACE")
7.) ALL PIPING MUST BE DICL (DUCTILE IRON CEMENT LINED)
8.) ALL FITTINGS MUST BE FLANGED



TEST TEE DETAIL

MATERIALS SUPPLIED BY VAWC
1.) 4" STRAINER
2.) 4" NEPTUNE METER

INSIDE METER SETTING
4" METER

AMERICAN WATER
HERSHEY CORPORATE

2225 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

VIRGINIA AMERICAN WATER

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PROJECT ENG'R
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DATE
PROJECT
USE DIMENSIONS ONLY
SCALE

USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES

Update 5/27/2023