

MAINE MEDICAL CENTER LEVEL III SITE PLAN APPLICATION
EAST TOWER / VISITOR GARAGE VERTICAL EXPANSIONS
WRITTEN SUBMISSION N UTILITIES

AS REQUIRED BY THE PORTLAND WATER DISTRICT, THE MMC MECHANICAL ENGINEER HAS POPULATED THE EXCEL SPREADSHEET PROVIDED BY BTHE WATER DISTRICT (SEE ATTACHMENT). AS STATED IN WRITTEN SUBMISSION S-1, THE EAST TOWER EXPANSION IS A DECOMPRESSION OF FACILITIES AND WILL NOT INCREASE THE NUMBER OF HOSPITAL BEDS. THERE WILL BE A SLIGHT INCREASE IN STAFF, HOWEVER , AND THE INCREASED WATER USE IS CALCULATED AS FOLLOWS :

(6) ADDITIONAL STAFF TOILETS @ (325) GPD = 1950 GPD
(2) ADDITIONAL STAFF SINKS @ (50) GPD = 100 GPD
TOTAL INCREASED WATER USE = 2050 GPD

THE VERTICAL EXPANSION WILL TIE INTO EXISTING WATER, SANITARY SEWER AND ELECTRICAL INFRASTRUCTURE, WHICH HAVE THYE CAPACITY TO SERVE THE EXPANSION.

Peak Flow Based on Fixture Count

Customer	Maine Medical Center
Street Address	22 Bramhall Street
City	Portland

Fixture	Fixture Value 60 psi	x	No. of Fixtures	=	Fixture Value
Bathtub	8	x	0	=	0
Bedpan Washers	10	x	2	=	20
Bidet	2	x	0	=	0
Dental Unit	2	x	0	=	0
Drinking Fountain - Public	2	x	0	=	0
Kitchen Sink	2.2	x	0	=	0
Lavatory	1.5	x	64	=	96
Showerhead (Shower Only)	2.5	x	64	=	160
Service Sink	4	x	2	=	8
Toilet -Flush Valve	35	x	70	=	2450
-Tank Type	4	x	0	=	0
Urinal -Pedestal Flush Valve	35	x	0	=	0
-Wall Flush Valve	16	x	0	=	0
Wash Sink (Each Set of Faucets)	4	x	8	=	32
Dishwasher	2	x	0	=	0
Washing Machine	6	x	0	=	0
Hose (50 ft. Wash Down) -1/2 in.	5	x	0	=	0
-5/8 in.	9	x	0	=	0
-3/4 in.	12	x	0	=	0

Combined Fixture Value Total 2766

Customer Peak Demand From Fig. 4-2 or 4-3	400
Pressure Factor From Table 4-1	1.17

No. of Irrigation Sections (Areas of 100 sq. ft.)	0
Irrigation Factor (1.16-Spray Systems, 0.40-Rotary Systems)	
Hose Bibs for Irrigation:	
Size	Fixture Value No. of Fixtures
1/2"	
5/8"	
3/4"	

Total Fixed Demand (Peak Flow) 468 gpm

Table 4-1 Pressure Adjustment Factors

Working Pressure at Meter Discharge (psi)	Pressure Adjustment Factor
35	0.74
40	0.80
50	0.90
60	1.00
70	1.09
80	1.17
90	1.25
100	1.34

Adapted from AWWA Manual M22 table 4-1

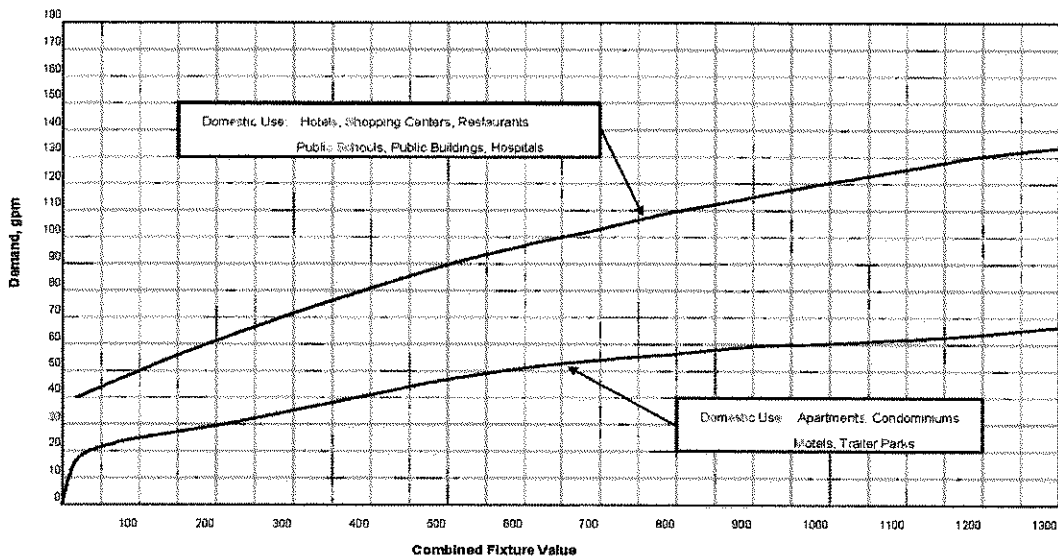


Figure 4-2 Water flow demand per fixture value - low range

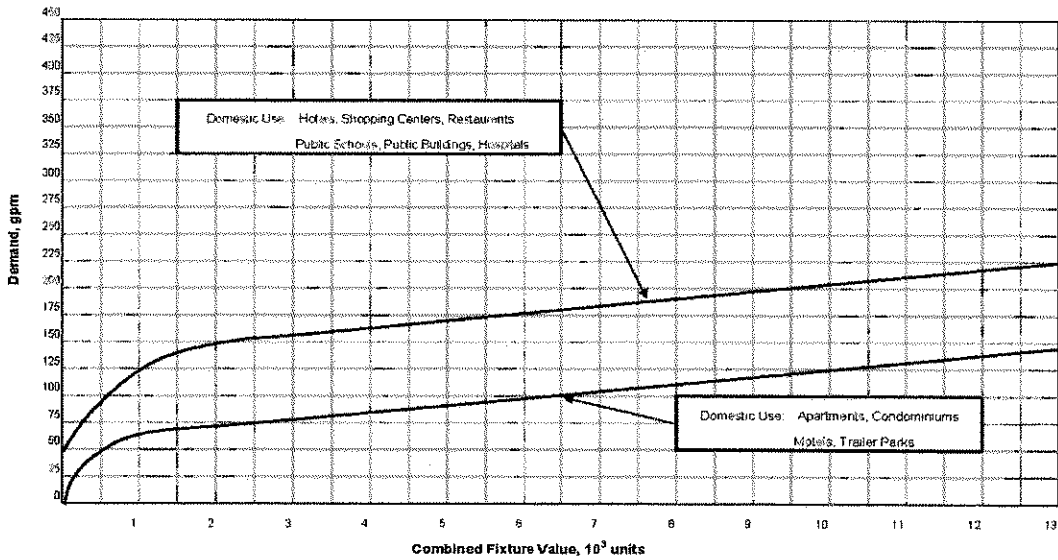


Figure 4-3 Water flow demand per fixture value - High range