

Non-residential Buildings**Baseline Case:** change occupant values to reflect anticipated occupancy

Fixture Type	Consumption	Daily Uses	Duration	Occupants	Daily Water Use (gal)
1.28 gpf toilet - male (gallons per flush)	1.28	1	1	50	64
1.28 gpf toilet - female (gallons per flush)	1.28	5	1	50	320
1.0 gpf urinal - male (gallons per flush)	1	4	1	50	200
Commercial Lavatory Faucet - 0.5 gpm	0.5	5	0.25	100	63
Kitchen sink - 2.2 gpm	2.2	5	0.25	100	275
Showerhead - 2.5 gpm	2.5	0.1	8	0	-
Total Daily Volume					922
Annual Work Days					365
Total Annual Usage					336,348

Residential 3 bedroom structure**Baseline Case:** change occupant values based on number of bedrooms (example shown is for 3 bedrooms)

Fixture Type	Consumption	Daily Uses	Duration	Occupants	Daily Water Use (gal)
1.28 gpf toilet	1.28	5	1	184	1,178
Lavatory Faucet - 2.2 gpm	2.2	8	0.25	184	810
Kitchen sink - 2.2 gpm	2.2	6	0.25	184	607
Showerhead - 2.5 gpm	2.5	0.75	8	184	2,760
Total Daily Volume					5,354
Annual Usage					1,954,356
Total Daily Volume for Building					6,276
Total Annual Usage for Building					2,290,704

Water Tap Calc

PROJECT NAME : 1725 Peoria Apartments - 17156
1/10/2018

CITY OF AURORA UTILITY DEPARTMENT
1470 SOUTH HAVANA STR., AURORA, CO. 80012
TAP APPLICATION OFFICE - 739-7395
PLANS REVIEW - 739-7374 FAX - 739-7491

FAX TO : _____ DATE : _____
ATTEN : _____ FAX # : _____

FIXTURE UNIT TABLE		EXISTING WATER SAVING FIXTURES ? EXISTING ULTRA LOW FLOW FIXTURE?		NO NO		PROPOSED WATER SAVING FIXTURES ? PROPOSED ULTRA LOW FLOW FIXTURE?		yes yes		DATE :	BY :	OK BY :					
		EXISTING PRIVATE		PROPOSED PRIVATE		EXISTING PUBLIC		PROPOSED PUBLIC		STANDARD		LOW FLOW		ULTRA LOW FLOW			
FIXTURE	NUMBER OF FIXTURES	FIXTURE VALUE	NUMBER OF FIXTURES	FIXTURE VALUE	NUMBER OF FIXTURES	FIXTURE VALUE	NUMBER OF FIXTURES	FIXTURE VALUE	UNITS SUBTOTALS	PRIV	PUB	PRIV	PUB	PRIV	PUB		
BAR SINK	1		0.7		2		1.4	0	1	2	0.7	1.4					
BATHTUB (WITH SHOWER)	2	119	1.4		4		1.8	166.6	2	4	1.4	1.8					
DENTAL UNIT	1		0.7		1		0.7	0	1	1	0.7	0.7					
DRINKING FOUNTAIN	1		0.7		2		2	2.8	1	2	0.7	1.4					
HOSE BIBB OR SILL COCK	3	6	3		5		5	18	3	5	3	5					
MOBILE HOME EACH	6		6		6		6	0	6	6	6	6					
LAUNDRY TUB, CLOTHWASHER	2	101	2		4		4	202	2	4	2	4					
LAVATORY	1	121	0.7		2		3	88.9	1	2	0.7	1.4					
LAVATORY (DENTAL)	1		0.7		1		0.7	0	1	1	0.7	0.7					
LAWN SPRINKLER EACH HEAD	1		1		1		1	0	1	1	1	1					
SHOWER EACH HEAD	2		1.4		4		2.8	0	2	4	1.4	2.8					
SINK (PER FAUCET)	1	101	0.7		2		1.4	70.7	1	2	0.7	1.4					
SINK DISHWASHER	2	101	1.4		4		2.8	141.4	2	4	1.4	2.8					
SINK (FLUSHING RIM)	10		7		10		7	0	10	10	7	7					
SINK (WASHUP)	2		1.4		2		1.4	0	2	2	1.4	1.4					
SINK (CIRCULAR WASHUP)	4		2.8		4		2.8	0	4	4	2.8	2.8					
URINAL (PEDESTAL)	10		5		10		5	0	10	10			5	5			
URINAL (STALL)	5		2.5		5		2.5	0	5	5			2.5	2.5			
URINAL (WALL)	5		2.5		5		4	10	5	5			2.5	2.5			
URINAL (FLUSH TANK)	3		1.5		3		2.5	0	3	3			1.5	2.5			
WATER CLOSET (TANK)	3	121	1.5		5		3	189	3	5	2.4	3.5	1.5	2.5			
WATER CLOSET (VALVE)	6		3		10		5	0	6	10	4.7	7	3	5			
3/8 INCH SUPPLY	1		1		2		2	0	1	2							
1/2 INCH SUPPLY	2		2		4		4	0	2	4							
3/4 INCH SUPPLY	3		3		6		6	0	3	6							
1 INCH SUPPLY	6		6		10		10	0	6	10							
TOTAL									889.4			MAXIMUM FIXTURE UNITS					
<p>* IF WATER SAVING AND/OR ULTRA LOW FLOW FIXTURE VALUES ARE USED THEY MUST BE SPECIFIED ON THE BUILDING PLANS PRIOR TO APPROVAL OF THE BUILDING PERMIT. WATER SAVINGS = 30% REDUCTION ON FAUCETS & 3.5 GALLON WATER CLOSETS ULTRA LOW FLOW = 1.6 GALLON WATER CLOSETS AND URINALS</p>												FLUSH TANK CURVE # 2		FLUSH VALVE CURVE # 1			
<p>METER SIZING TABLE CURVE NO. 1 FOR FLUSH VALVES CURVE NO. 2 FOR FLUSH TANKS</p>												METER SIZE DIA.		MAX. FLOW (GPM)			
<p>HEAD LOSS CALCULATIONS BASE ON HAZEN WILLIAMS COEFFICIENT COPPER SERVICE C = 130, DUCTILE IRON C = 100 HAZEN WILLIAMS C = 130</p>																	
<p>CURVE NO. = 2</p>																	
<p>FIXTURE UNIT TOTAL</p>												FLOW FROM TABLE (GPM)		METER SIZE (INCHES)		VELOCITY (FPS)	
<p>889.4</p>												193.516		3.00		6.83	
<p>50</p>												2.45					
<p>90</p>												88.77					
<p>3/4"</p>												14		20		-	
<p>1"</p>												25		41		9	
<p>1 1/2"</p>												55		150		60	
<p>2"</p>												100		375		246	
<p>3"</p>												220		1075		1075	
<p>4"</p>												400		2675		2675	
<p>6"</p>												900		5500		5500	