

Towne Student Apartments

Code: _____

Line	Item	Note	Quantity	Dfu/Item	Subtotal Dfu	Quantity	Item Cwsfu	Item Hwsfu	Item Wsfu	Subtotal Cwsfu	Subtotal Hwsfu	Subtotal Wsfu
1	Apartment - Water Closet	flush tank	36	3	108	36	2.2	0	2.2	79.2	0	79.2
2	Apartment - Lavatory		72	1	72	72	0.5	0.5	0.7	36	36	50.4
3	Apartment - Tub/Shower		36	2	72	36	1	1	1.4	36	36	50.4
4	Apartment - Kitchen Sink		36	2	72	36	1	1	1.4	36	36	50.4
5	Apartment - Dishwasher		36	2	72	36	0	1.4	1.4	0	50.4	50.4
6												
7	Floor Laundry - Washing Machine		9	2	18	9	1	1	1.4	9	9	12.6
8	Floor Laundry - Laundry Tray		3	2	6	3	2.5	2.5	3	7.5	7.5	9
9												
10	1st Floor - Water Closets	flush valve	3	4	12	3	10	0	10	30	0	30
11	1st Floor - Urinals	flush valve-3/4"	1	2	2	1	5	0	5	5	0	5
12	1st Floor - Lavatories		4	1	4	4	1.5	1.5	2	6	6	8
13	1st Floor - Toilet room Floor Drains	(emergency)	2	0	0	2	0	0	0	0	0	0
14	1st Floor - Bottle Filler, Drinking Fountain		1	0.5	0.5	1	0.25	0	0.25	0.25	0	0.25
15	Custodial Mop Receptor	3" waste	1	5	5	1	2.25	2.25	3	2.25	2.25	3
16	Custodial Floor Drain	(emergency)	1	0	0	1	0	0	0	0	0	0
17												
18	Kitchen - 3 Bay		1	9	9	1	3	3	4	3	3	4
19	Kiitchen - 2 Bay		2	4	8	2	3	3	4	6	6	8
20	Kitchen Commercial Dishwasher		1	18	18	1	0	5	5	0	5	5
21	Service Sink		1	3	3	1	2.25	2.25	3	2.25	2.25	3
22	Mop Receptor	3" waste	1	5	5	1	2.25	2.25	3	2.25	2.25	3
23	Floor Drains		6	2	12	6	0	0	0	0	0	0
24	Floor Sinks		4	6	24	4	0	0	0	0	0	0
25												
26	Totals				522.5					260.7	201.65	371.65

NOTE: For each of these questions, show your calculations and provide any Reference Table numbers that you use.

1	Water service size at minimum code allowed size	Answer: <u>3"</u>
	Total WSFU = 371.65	
	Using Table E103.3(3) - Flow = 99 GPM	
	Using Figure E103.3(3) - Size at 5 fps maximum = 3"	
2	Hot water main size at minimum code allowed size	Answer: <u>2.5"</u>
	Total HWSFU = 201.65	
	Using Table E103.3(3) - Flow = 65 GPM	
	Using Figure E103.3(3) - Size at 5 fps maximum = 2.5"	
3	Cold water main size at minimum code allowed size	Answer: <u>2.5"</u>
	Total CWSFU = 260.7	
	Using Table E103.3(3) - Flow = 77 GPM	
	Using Figure E103.3(3) - Size at 5 fps maximum = 2.5"	
4	Sanitary sewer lateral size required at minimum pitch	Answer: <u>6" @ 1/8 in/ft</u>
	Total DFU = 522.5	
	Using Table 710.1(1) - Size at 1/8" pitch = 6"	
5	Storm sewer lateral size required at minimum pitch	Answer: <u>8" @ 1/8 in/ft</u>
	18,000 sq ft x 3 in/hr = 75 CFM = 561 GPM	
	Using Table 1106.2 - Size at 1/8" pitch = 8"	