

LHB# 120496
St Cloud VA - Summary
 Water Savings Calculation
 February 1, 2013

DOMESTIC WATER

	FTE	Bed Count	SF	Existing			Proposed			Proposed Savings		
				Gallons/ Day	Gallson/ Yr	Gallons/ Patient/ Yr	Gallons/ Day	Gallson/ Yr	Gallons/ Patient/ Yr	Gallons/ Day	Gallson/ Yr	Gallons/ Patient/ Yr
Building 2	32	91	35,797	589	214,876	2,361	274	99,901	1,098	315	114,975	1,263
Building 50	125	90	54,864	1,061	387,083	4,301	550	200,677	2,230	511	186,406	2,071
Building 51	93	79	56,389	833	303,899	3,847	432	157,607	1,995	401	146,292	1,852
Total	250	260	147,050									
Total Project Savings:										1,227	447,673	5,186

LHB# 120496
St Cloud VA - Building 2
 Water Savings Calculation
 February 1, 2013

DOMESTIC WATER

Fixture	Quantity	Existing					Proposed						
		Estimated Consumption	Estimated Gallons per Use	Use/Day	Gallons/Day	Gallons/Yr	Selected Consumption	Selected Gallons per Use	Use/Day	Gallons/Day	Gallons/Yr		
2nd Floor													
Water Closet	7	4.3 GPF	4.3	3	90.3	32,960	1.6 GPF	1.6	3	33.6	12,264		
Urinal	4	3 GPF	3	2	24	8,760	1 GPF	1	2	8	2,920		
LAV Public	9	4.0 GPM	1.33	3	36	13,140	0.5 GPM	0.17	3	4.5	1,643		
LAV Patient	0	2.3 GPM	0.77	3	0	0	1.5 GPM	0.33	3	0	0		
Shower - ADA Nozzle Only	2	3.5 GPM	17.5	1	35	12,775	2.5 GPM	12.5	1	25	9,125		
Shower - Fixed Nozzle Only	4	2.5 GPM	12.5	1	50	18,250	2.5 GPM	12.5	1	50	18,250		
TOTALS	26												
1st Floor													
Water Closet	12	4.3 GPF	4.3	3	154.8	56,502	1.6 GPF	1.6	3	57.6	21,024		
Urinal	5	3 GPF	3	2	30	10,950	1 GPF	1	2	10	3,650		
LAV Public	13	4 GPM	1.33	3	52	18,980	0.5 GPM	0.17	3	6.5	2,373		
LAV Patient	1	2.3 GPM	0.77	3	2.3	840	1.5 GPM	0.33	3	1	365		
Exam Sink	2	4.0 GPM	1.33	3	8	2,920	1.5 GPM	0.73	3	4.4	1,606		
Shower - ADA Nozzle Only	2	3.5 GPM	17.5	1	35	12,775	2.5 GPM	12.5	1	25	9,125		
Shower - Fixed Nozzle Only	1	2.5 GPM	12.5	1	12.5	4,563	2.5 GPM	12.5	1	12.5	4,563		
TOTALS	36												
Basement													
Water Closet	2	4.3 GPF	4.3	3	25.8	9,417	1.6 GPF	1.6	3	9.6	3,504		
LAV Public	2	4.0 GPM	1.33	3	8	2,920	0.5 GPM	0.17	3	1	365		
Shower - Fixed Nozzle Only	2	2.5 GPM	12.5	1	25	9,125	2.5 GPM	12.5	1	25	9,125		
TOTALS	6												
Total Gallons					589	214,876						274	99,901

Calculation Use Assumptions

- Toilet 3x/day
- Urinal 1x/day
- Faucets 20 sec/use. 3x/day
- Shower 300 Sec/use

LHB# 120496

St Cloud VA - Building 50

Water Savings Calculation

February 1, 2013

DOMESTIC WATER

Fixture	Quantity	Existing					Proposed				
		Estimated Consumption	Estimated Gallons per Use	Use/Day	Gallons/Day	Gallons/Yr	Selected Consumption	Selected Gallons per Use	Use/Day	Gallons/Day	Gallons/Yr
2nd Floor											
Water Closet	21	4.3 GPF	4.3	3	270.9	98,879	1.6 GPF	1.6	3	100.8	36,792
LAV Public	2	4.0 GPM	1.33	3	8	2,920	0.5 GPM	0.17	3	1	365
LAV Patient	17	2.3 GPM	0.77	3	39.1	14,272	1.5 GPM	0.33	3	17	6,205
Exam Sink	24	4.0 GPM	1.33	3	96	35,040	1.5 GPM	0.73	3	52.8	19,272
Shower - ADA Nozzle Only	9	3.5 GPM	17.5	1	157.5	57,488	2.5 GPM	12.5	1	112.5	41,063
Shower - ADA/Fixed Nozzle	2	3.5 GPM	17.5	1	35	12,775	2.5 GPM	12.5	1	25	9,125
TOTALS	75										
1st Floor											
Water Closet	20	4.3 GPF	4.3	3	258	94,170	1.6 GPF	1.6	3	96	35,040
Urinal	1	3 GPF	3	2	6	2,190	1 GPF	1	2	2	730
LAV Public	2	4 GPM	1.33	3	8	2,920	0.5 GPM	0.17	3	1	365
LAV Patient	22	2.3 GPM	0.77	3	50.6	18,469	1.5 GPM	0.33	3	22	8,030
Exam Sink	30	4.0 GPM	1.33	3	120	43,800	1.5 GPM	0.73	3	66	24,090
Shower - ADA Nozzle Only	5	3.5 GPM	17.5	1	87.5	31,938	2.5 GPM	12.5	1	62.5	22,813
Shower - ADA/Fixed Nozzle	2	3.5 GPM	17.5	1	35	12,775	2.5 GPM	12.5	1	25	9,125
TOTALS	82										
Basement											
Water Closet	7	4.3 GPF	4.3	3	90.3	32,960	1.6 GPF	1.6	3	33.6	12,264
LAV Public	5	4.0 GPM	1.33	3	20	7,300	0.5 GPM	0.17	3	2.5	913
Exam Sink	7	4.0 GPM	1.33	3	28	10,220	1.5 GPM	0.73	3	15.4	5,621
Urinal	2	3 GPF	3	2	12	4,380	1 GPF	1	2	4	1,460
Shower - ADA/Fixed Nozzle	1	3.5 GPM	17.5	1	17.5	6,388	2.5 GPM	12.5	1	12.5	4,563
TOTALS	22										
					Total Gallons	1,061	387,083			550	200,677

Calculation Use Assumptions

Toilet 3x/day

Urinal 1x/day

Faucets 20 sec/use. 3x/day

Shower 300 Sec/use

LHB# 120496
St Cloud VA - Building 51
 Water Savings Calculation
 February 1, 2013

DOMESTIC WATER

Fixture	Quantity	Existing					Proposed						
		Estimated Consumption	Estimated Gallons per Use	Use/Day	Gallons/Day	Gallons/Yr	Selected Consumption	Selected Gallons per Use	Use/Day	Gallons/Day	Gallons/Yr		
2nd Floor													
Water Closet	15	4.3 GPF	4.3	3	193.5	70,628	1.6 GPF	1.6	3	72	26,280		
LAV Public	1	4.0 GPM	1.33	3	4	1,460	0.5 GPM	0.17	3	0.5	183		
LAV Patient	40	2.3 GPM	0.77	3	92	33,580	1.5 GPM	0.33	3	40	14,600		
Exam Sink		4.0 GPM	1.33	3	0	0	1.5 GPM	0.73	3	0	0		
Shower - ADA Nozzle Only	13	3.5 GPM	17.5	1	227.5	83,038	2.5 GPM	12.5	1	162.5	59,313		
TOTALS	69												
1st Floor													
Water Closet	18	4.3 GPF	4.3	3	232.2	84,753	1.6 GPF	1.6	3	86.4	31,536		
LAV Public	1	4 GPM	1.33	3	4	1,460	0.5 GPM	0.17	3	0.5	183		
LAV Patient	38	2.3 GPM	0.77	3	87.4	31,901	1.5 GPM	0.33	3	38	13,870		
Exam Sink	9	4.0 GPM	1.33	3	36	13,140	1.5 GPM	0.73	3	19.8	7,227		
Shower - Fixed Nozzle	1	3.5 GPM	17.5	1	17.5	6,388	2.5 GPM	12.5	1	12.5	4,563		
Shower - ADA/Fixed Nozzle	2	3.5 GPM	12.5	1	25	9,125	2.5 GPM	12.5	1	25	9,125		
TOTALS	69												
Basement													
Water Closet	5	4.3 GPF	4.3	3	64.5	23,543	1.6 GPF	1.6	3	24	8,760		
Urinal	1	3 GPF	3	2	6	2,190	1 GPF	1	2	2	730		
LAV Public	3	4.0 GPM	1.33	3	12	4,380	0.5 GPM	0.17	3	1.5	548		
Exam Sink	3	4.0 GPM	1.33	3	12	4,380	1.5 GPM	0.73	3	6.6	2,409		
Shower - Fixed Nozzle	1	2.5 GPM	12.5	1	12.5	4,563	2.5 GPM	12.5	1	12.5	4,563		
TOTALS	13												
Total Gallons					833	303,899						432	157,607

Calculation Use Assumptions

- Toilet 3x/day
- Urinal 1x/day
- Faucets 20 sec/use. 3x/day
- Shower 300 Sec/use