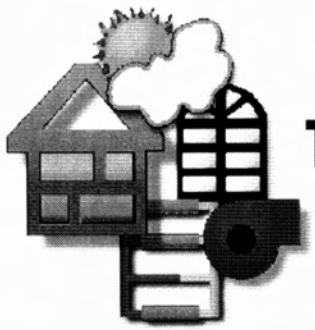

TRACE® Load 700

version 3.0

By Professional Engineering Services

Project Name: SBT 22 Riverine Operations and Training Facility
Dataset Name: C:\CDS\LOAD32\PROJECTS\Stennis Riverine FINAL.LDS
Location: Stennis Space Center, MS
Building Owner: NAVFAC / NASA / SPECWAR
Program User: Damien W. Serauskas, P.E.
Company: Professional Engineering Services
Comments:

Location:	Keesler AFB, Mississippi	
Latitude:	30.0	deg
Longitude:	89.0	deg
Time Zone:	6	
Elevation:	26	ft
Barometric Pressure:	29.9	in. Hg
Air Density:	0.0760	lb/cu ft
Air Specific Heat:	0.2444	Btu/lb·°F
Density-Specific Heat Product:	1.1144	Btu/h·cfm·°F
Latent Heat Factor:	4,905.3	Btu·min/h·cu ft
Enthalpy Factor:	4.5588	lb·min/hr·cu ft

Summer Design Dry Bulb:	92	°F
Summer Design Wet Bulb:	82	°F
Winter Design Dry Bulb:	31	°F
Summer Clearness Number:	0.90	
Winter Clearness Number:	0.90	
Summer Ground Reflectance:	0.20	
Winter Ground Reflectance:	0.20	

Design Simulation Period:	January through December
Cooling Load Methodology:	TETD-TA1
Heating Load Methodology:	UATD

System Checksums

By Professional Engineering Services

Stennis 1st Fl Cages — **Single Zone**

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 8 / 17
Outside Air: OADB/WB/HR: 91 / 81 / 147

	Space Sens. + Lat. Btu/h	Plenum Sensible Btu/h	Plenum Latent Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads					
Skylite Solr	0	0		0	0.00
Skylite Cond	0	0		0	0.00
Roof Cond	0	0		0	0.00
Glass Solar	0	0		0	0.00
Glass Cond	0	0		0	0.00
Wall Cond	3,587	973		4,560	4.32
Partition	1,131			1,131	1.07
Exposed Floor	0			0	0.00
Infiltration	0			0	0.00
Sub Total ==>	4,718	973		5,691	5.39
Internal Loads					
Lights	28,505	0		28,505	26.99
People	2,500			2,500	2.37
Misc	0	0	0	0	0.00
Sub Total ==>	31,005	0	0	31,005	29.36
Ceiling Load	482	-482		0	0.00
Outside Air	0	0	0	68,469	64.83
Sup. Fan Heat				716	0.68
Ret. Fan Heat		0		0	0.00
Duct Heat Pkup		0		0	0.00
OV/UNDR Sizing	0			0	0.00
Exhaust Heat		-274	0	-274	-0.26
Terminal Bypass		0	0	0	0.00
Grand Total ==>	36,206	217	0	105,608	100.00

CLG SPACE PEAK

Mo/Hr: 7 / 24
OADB: 82

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solr	0	0.00
Skylite Cond	0	0.00
Roof Cond	0	0.00
Glass Solar	0	0.00
Glass Cond	0	0.00
Wall Cond	4,698	13.09
Partition	816	2.27
Exposed Floor	0	0.00
Infiltration	0	0.00
Sub Total ==>	5,515	15.36
Internal Loads		
Lights	28,505	79.40
People	1,250	3.48
Misc	0	0.00
Sub Total ==>	29,755	82.88
Ceiling Load	632	1.76
Outside Air	0	0.00
Sup. Fan Heat		0.00
Ret. Fan Heat		0.00
Duct Heat Pkup		0.00
OV/UNDR Sizing	0	0.00
Exhaust Heat		0.00
Terminal Bypass		0.00
Grand Total ==>	35,902	100.00

HEATING COIL PEAK

Mo/Hr: 13 / 1
OADB: 31

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solr	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass Cond	0	0	0.00
Wall Cond	-6,529	-8,300	10.78
Partition	-2,750	-2,750	3.57
Exposed Floor	0	0	0.00
Infiltration	0	0	0.00
Sub Total ==>	-9,279	-11,050	14.35
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-878	0	0.00
Outside Air	0	-37,108	48.20
Sup. Fan Heat		0	0.00
Ret. Fan Heat		0	0.00
Duct Heat Pkup		0	0.00
OV/UNDR Sizing	-29,335	-29,335	38.10
Exhaust Heat		499	-0.65
Terminal Bypass		0	0.00
Grand Total ==>	-39,492	-76,994	100.00

TEMPERATURES

	Clg	Htg
SADB	55.0	90.0
Plenum	75.3	67.5
Return	75.3	67.5
Ret/OA	84.1	47.1
Fn MtrTD	0.0	0.0
Fn BldTD	0.1	0.0
Fn Frict	0.3	0.0

AIRFLOWS

	Cooling	Heating
Vent	900	900
Infil	0	0
Supply	1,611	1,611
Mincfm	0	0
Return	1,611	1,611
Exhaust	900	900
Rm Exh	0	0
Auxil	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	55.9	55.9
cfm/ft²	0.29	0.29
cfm/ton	183.04	
ft²/ton	632.68	
Btu/hr·ft²	18.97	-13.83
No. People	5	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airfl cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	8.8	105.6	52.0	1,611	84.1	73.9	110.4	54.6	54.6	63.6
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	8.8	105.6								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	5,568		
Part	252		
ExFlr	0		
Roof	0	0	0
Wall	2,754	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airfl cfm	Ent °F	Lvg °F
Main Htg	-77.0	1,611	47.1	90.0
Aux Htg	0.0	0	0.0	0.0
Preheat	-13.5	1,611	47.1	54.6
Reheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-77.0			

System Checksums

By Professional Engineering Services

Stennis 2nd Floor VAV

Variable Volume Reheat (30% Min Flow Default)

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 8 / 16
Outside Air: OADB/WB/HR: 92 / 81 / 145

	Space Sens. + Lat. Btu/h	Plenum Sensible Btu/h	Plenum Latent Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads					
Skylite Solr	0	0		0	0.00
Skylite Cond	0	0		0	0.00
Roof Cond	0	43,661		43,661	15.64
Glass Solar	30,786	0		30,786	11.03
Glass Cond	6,457	0		6,457	2.31
Wall Cond	3,630	592		4,223	1.51
Partition	1,838			1,838	0.66
Exposed Floor	0			0	0.00
Infiltration	0			0	0.00
Sub Total ==>	42,711	44,253		86,964	31.15
Internal Loads					
Lights	24,481	16,389		40,870	14.64
People	65,000			65,000	23.28
Misc	9,015	0	0	9,015	3.23
Sub Total ==>	98,495	16,389	0	114,885	41.15
Ceiling Load	16,445	-16,445		0	0.00
Outside Air	0	0	0	80,559	28.85
Sup. Fan Heat				4,991	1.79
Ret. Fan Heat		0		0	0.00
Duct Heat Pkup		0		0	0.00
OV/UNDR Sizing	0			0	0.00
Exhaust Heat		-8,190	0	-8,190	-2.93
Terminal Bypass		0	0	0	0.00
Grand Total ==>	157,651	36,007	0	279,210	100.00

CLG SPACE PEAK

Mo/Hr: 8 / 16
OADB: 92

	Space Sensible Btu/h	Percent Of Total (%)
	0	0.00
	0	0.00
	0	0.00
	30,786	24.43
	6,457	5.12
	3,630	2.88
	1,838	1.46
	0	0.00
	0	0.00
	42,711	33.89
	24,481	19.43
	32,500	25.79
	9,015	7.15
	65,995	52.37
	17,316	13.74
	0	0.00
		0.00
		0.00
		0.00
	0	0.00
		0.00
	126,023	100.00

HEATING COIL PEAK

Mo/Hr: 13 / 1
OADB: 31

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
	0	0	0.00
	0	0	0.00
	0	-18,792	20.63
	0	0	0.00
	-15,488	-15,488	17.00
	-5,957	-7,227	7.93
	-4,726	-4,726	5.19
	0	0	0.00
	-1	-1	0.00
	-26,172	-46,233	50.75
	0	0	0.00
	0	0	0.00
	0	0	0.00
	0	0	0.00
	-11,174	0	0.00
	0	-42,354	46.49
		0	0.00
		0	0.00
		0	0.00
	-7,545	-7,545	8.28
		5,025	-5.52
		0	0.00
	-44,892	-91,108	100.00

TEMPERATURES

	Clg	Htg
SADB	55.0	90.0
Plenum	81.5	63.6
Return	81.5	63.6
Ret/OA	83.6	45.3
Fn MtrTD	0.1	0.0
Fn BldTD	0.2	0.0
Fn Frict	0.5	0.0

AIRFLOWS

	Cooling	Heating
Vent	1,131	1,027
Infil	0	0
Supply	5,655	1,831
Mincfm	1,831	1,831
Return	5,655	1,831
Exhaust	1,131	1,027
Rm Exh	0	0
Auxil	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	20.0	56.1
cfm/ft²	0.71	0.23
cfm/ton	243.02	
ft²/ton	343.10	
Btu/hr·ft²	34.97	-12.75
No. People	130	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airfl cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	23.3	279.2	187.4	5,615	83.6	69.4	85.2	54.2	53.8	61.3
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	23.3	279.2								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	7,983		
Part	433		
ExFlr	0		
Roof	6,949	0	0
Wall	3,560	364	10

HEATING COIL SELECTION

	Capacity MBh	Coil Airfl cfm	Ent °F	Lvg °F
Main Htg	-72.6	1,831	54.4	90.0
Aux Htg	0.0	0	0.0	0.0
Preheat	-29.2	1,131	31.0	54.2
Reheat	-26.5	1,831	55.0	68.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-101.8			

Project Name: SBT 22 Riverine Operations and Training Facility
Dataset Name:C:\CDS\LOAD32\PROJECTS\Stennis Riverine FINAL.LDS

TRACE® Load 700 v3.0 calculated at 11:15 AM on 04/15/2009

System Checksums

By Professional Engineering Services

2441 Boat Staging — **Unit Heaters**

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sensible Btu/h	Plenum Latent Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads					
Skylite Solr	0	0		0	0.00
Skylite Cond	0	0		0	0.00
Roof Cond	0	0		0	0.00
Glass Solar	0	0		0	0.00
Glass Cond	0	0		0	0.00
Wall Cond	0	0		0	0.00
Partition	0			0	0.00
Exposed Floor	0			0	0.00
Infiltration	0			0	0.00
Sub Total ==>	0	0		0	0.00
Internal Loads					
Lights	0	0		0	0.00
People	0			0	0.00
Misc	0	0	0	0	0.00
Sub Total ==>	0	0	0	0	0.00
Ceiling Load	0	0		0	0.00
Outside Air	0	0	0	0	0.00
Sup. Fan Heat				0	0.00
Ret. Fan Heat		0		0	0.00
Duct Heat Pkup		0		0	0.00
OV/UNDR Sizing	0			0	0.00
Exhaust Heat		0	0	0	0.00
Terminal Bypass		0	0	0	0.00
Grand Total ==>	0	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solr	0	0.00
Skylite Cond	0	0.00
Roof Cond	0	0.00
Glass Solar	0	0.00
Glass Cond	0	0.00
Wall Cond	0	0.00
Partition	0	0.00
Exposed Floor	0	0.00
Infiltration	0	0.00
Sub Total ==>	0	0.00
Internal Loads		
Lights	0	0.00
People	0	0.00
Misc	0	0.00
Sub Total ==>	0	0.00
Ceiling Load	0	0.00
Outside Air	0	0.00
Sup. Fan Heat		0.00
Ret. Fan Heat		0.00
Duct Heat Pkup		0.00
OV/UNDR Sizing	0	0.00
Exhaust Heat		0.00
Terminal Bypass		0.00
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: 13 / 1
OADB: 31

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solr	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-4,901	11.90
Glass Solar	0	0	0.00
Glass Cond	0	0	0.00
Wall Cond	-6,052	-7,041	17.11
Partition	0	0	0.00
Exposed Floor	0	0	0.00
Infiltration	-29,223	-29,223	70.99
Sub Total ==>	-35,274	-41,165	100.00
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-5,890	0	0.00
Outside Air	0	0	0.00
Sup. Fan Heat		0	0.00
Ret. Fan Heat		0	0.00
Duct Heat Pkup		0	0.00
OV/UNDR Sizing	0	0	0.00
Exhaust Heat		0	0.00
Terminal Bypass		0	0.00
Grand Total ==>	-41,165	-41,165	100.00

TEMPERATURES

	Clg	Htg
SADB	0.0	95.0
Plenum	0.0	52.3
Return	0.0	55.0
Ret/OA	0.0	55.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.1	0.1
Fn Frict	0.3	0.2

AIRFLOWS

	Cooling	Heating
Vent	0	0
Infil	0	1,093
Supply	0	924
Mincfm	0	0
Return	0	2,016
Exhaust	0	1,093
Rm Exh	0	0
Auxil	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	0.00	0.13
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-5.97
No. People	6	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airfl cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	6,901		
Part	0		
ExFlr	0		
Roof	6,901	0	0
Wall	5,460	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airfl cfm	Ent °F	Lvg °F
Main Htg	-41.2	924	55.0	95.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Reheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-41.2			

System Checksums

By Professional Engineering Services

2442 Boat Storage

Unit Heaters

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sensible Btu/h	Plenum Latent Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads					
Skylite Solr	0	0		0	0.00
Skylite Cond	0	0		0	0.00
Roof Cond	0	0		0	0.00
Glass Solar	0	0		0	0.00
Glass Cond	0	0		0	0.00
Wall Cond	0	0		0	0.00
Partition	0			0	0.00
Exposed Floor	0			0	0.00
Infiltration	0			0	0.00
Sub Total ==>	0	0		0	0.00
Internal Loads					
Lights	0	0		0	0.00
People	0			0	0.00
Misc	0	0	0	0	0.00
Sub Total ==>	0	0	0	0	0.00
Ceiling Load	0	0		0	0.00
Outside Air	0	0	0	0	0.00
Sup. Fan Heat				0	0.00
Ret. Fan Heat		0		0	0.00
Duct Heat Pkup		0		0	0.00
OV/UNDR Sizing	0			0	0.00
Exhaust Heat		0	0	0	0.00
Terminal Bypass		0	0	0	0.00
Grand Total ==>	0	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solr	0	0.00
Skylite Cond	0	0.00
Roof Cond	0	0.00
Glass Solar	0	0.00
Glass Cond	0	0.00
Wall Cond	0	0.00
Partition	0	0.00
Exposed Floor	0	0.00
Infiltration	0	0.00
Sub Total ==>	0	0.00
Internal Loads		
Lights	0	0.00
People	0	0.00
Misc	0	0.00
Sub Total ==>	0	0.00
Ceiling Load	0	0.00
Outside Air	0	0.00
Sup. Fan Heat		0.00
Ret. Fan Heat		0.00
Duct Heat Pkup		0.00
OV/UNDR Sizing	0	0.00
Exhaust Heat		0.00
Terminal Bypass		0.00
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: 13 / 1
OADB: 31

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solr	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-6,010	10.74
Glass Solar	0	0	0.00
Glass Cond	0	0	0.00
Wall Cond	-11,791	-13,699	24.49
Partition	0	0	0.00
Exposed Floor	0	0	0.00
Infiltration	-36,222	-36,222	64.76
Sub Total ==>	-48,014	-55,931	100.00
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-7,917	0	0.00
Outside Air	0	0	0.00
Sup. Fan Heat		0	0.00
Ret. Fan Heat		0	0.00
Duct Heat Pkup		0	0.00
OV/UNDR Sizing	0	0	0.00
Exhaust Heat		0	0.00
Terminal Bypass		0	0.00
Grand Total ==>	-55,931	-55,931	100.00

TEMPERATURES

	Clg	Htg
SADB	0.0	95.0
Plenum	0.0	52.1
Return	0.0	55.0
Ret/OA	0.0	55.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.1	0.1
Fn Frict	0.3	0.2

AIRFLOWS

	Cooling	Heating
Vent	0	0
Infil	0	1,354
Supply	0	1,255
Mincfm	0	0
Return	0	2,609
Exhaust	0	1,354
Rm Exh	0	0
Auxil	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	0.00	0.15
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-6.54
No. People	0	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airfl cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	8,554		
Part	0		
ExFlr	0		
Roof	8,554	0	0
Wall	9,160	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airfl cfm	Ent °F	Lvg °F
Main Htg	-55.9	1,255	55.0	95.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Reheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-55.9			

DAMIEN W. SERAUSKAS, P.E.
PROFESSIONAL ENGINEERING SERVICES

Plumbing Calculations
16-Mar-09

PUBLIC OR NONPUBLIC? *PUBLIC*
DWSPE NO. 08-128 *Stennis Riverine ROF*
DO YOU WANT TO USE THE(PRIVATE, RESIDENTIAL)TABLE ? NO (YES OR NO)
SYSTEM TYPE: 1
FLUSH VALVE = 1
FLUSH TANK = 2

		FIXTURE UNITS PER FIXTURE			TOTAL FIXTURE UNITS PER FIXTURE		
FIXTURES	**QTY**	**HOT**	**COLD**	**TOTAL**	**HOT**	**COLD**	**TOTAL**
BATHROOM GROUP	**0**	3	6	8	0	0	0
BATHTUB	**0**	3	3	4	0	0	0
CLOTHES WASHER	**3**	2.25	2.25	3	6.75	6.75	9
DISHWASHING MACHINE	**0**	1.4	2.25	1.4	0	0	0
DRINKING FOUNTAIN	**3**	0	0.25	0.25	0	0.75	0.75
KITCHEN SINK	**1**	3	3	4	3	3	4
LAUNDRY TRAY	**0**	1	1	1.4	0	0	0
LAVATORY	**12**	1.5	1.5	2	18	18	24
HOSE BIBB OR HYDRANT	**6**	0	4	4	0	24	24
RESTAURANT SINK	**0**	3	3	4	0	0	0
SERVICE SINK	**3**	2.25	2.25	4	6.75	6.75	12
SHOWER HEAD	**11**	3	3	4	33	33	44
STALL OR WALL URINAL	**4**	0	5	5	16	20	20
WATER CLOSET TANK	**0**	0	5	5	0	0	0
WATER CLOSET VALVE	**8**	0	5	5	0	40	40
TOTAL F.U. DEMAND					83.5	152.25	177.75
SUBTOTAL GPM DEMAND.....					40	81	98
MISC. GPM DEMAND.....					**0**	**0**	**0**
TOTAL GPM DEMAND.....					40	81	98

PRESSURE AVAILABLE	**42**	**PSI**
PRESSURE REQUIRED	**25**	**PSI**
PRESSURE LOSS THROUGH METER ..SIZ **3.00** INCHES	2.5	**PSI**
STATIC LOSS STATIC LIFT (FT) = **14** FEET	6.06	**PSI**
LOSS THROUGH SPECIAL DEVICES	**3**	**PSI**
DISTANCE FROM MAIN TO BUILDING	**120**	**FEET**
PRESSURE LOSS FROM MAIN TO BUILDING	3.64	**PSI**
PRESSURE AVAILABLE FOR SYSTEM	1.80	**PSI**
TOTAL EQUIVALENT LENGTH (WITHIN BUILDING)	**60**	**FEET**
DESIRED MAX. VELOCITY IN FPS	**8**	**FPS**
PRESSURE LOSS PER 100' AVAILABLE FOR SYSTEM DESIG	2.99	**PSI/100'**
COPPER (C) OR STEEL (S) PIPE	**C**	
BUILDING WATER SUPPLY PIPE SIZE (INCHES)	2 1/2	INCHES (BUILDING MAIN)
	1 1/2	INCHES (HOT)
	2 1/2	INCHES (COLD)

NOTES:

DWSPE NO. 08-128 **Stennis Riverine ROF**

WASTE PIPE CALCULATIONS

16-Mar-09

FIXTURES	QTY	DFU	TOTAL
BATHROOM GROUP	0	6	0
BATHTUB	0	2	0
CLOTHES WASHER	3	3	9
DISHWASHING MACHINE	0	2	0
DRINKING FOUNTAIN	3	0.5	1.5
KITCHEN SINK	1	2	2
LAUNDRY TRAY	0	2	0
LAVATORY	12	1	12
HOSE BIBB OR HYDRANT	6	0	0
RESTAURANT SINK	0	4	0
SERVICE SINK	3	3	9
SHOWER HEAD	11	2	22
STALL OR WALL URINAL	4	8	32
WATER CLOSET FT	0	4	0
WATER CLOSET FV	8	6	48
2" FLOOR DRAINS	2	1	2
3" FLOOR DRAINS	14	1	14
4" FLOOR DRAINS	2	1	2
MISC. GPM FLOW.....			0
TOTAL DRAINAGE FIXTURE UNITS.....			153.5
BUILDING WASTE SIZE LEAVING.....			4"

NOTE: ALL CALCULATIONS BASED ON INTERNATIONAL PLUMBING CODE WITH LA AMENDMENTS, 2000