

# BUILDING ENVELOPE HEATING LOADS

at Space Peak

By RLF

## Alternative 1

		WALL				WINDOW						
System Zone Room		Plenum Load	Plenum CLTD	Space Load	Space CLTD	Space Solar	Plenum Solar	Solar	Space Conduction	Space CLTD	Plenum Conduction	Plenum CLTD
		Btu/h	°F	Btu/h	°F	Btu/h	Btu/h	CLF	Btu/h	°F	Btu/h	°F
174E-OFFICE	Zn Tot/Ave	-300	-21.4	-1,484	-32.0	0	0	0.000	-305	-31.8	0	0.0
175A-OFFICE	Zn Tot/Ave	0	0.0	0	0.0	0	0	0.000	0	0.0	0	0.0
175B-OFFICE	Zn Tot/Ave	0	0.0	0	0.0	0	0	0.000	0	0.0	0	0.0
175C-OFFICE	Zn Tot/Ave	0	0.0	0	0.0	0	0	0.000	0	0.0	0	0.0
175D-OFFICE	Zn Tot/Ave	0	0.0	0	0.0	0	0	0.000	0	0.0	0	0.0
174-ENTRY/RECEPTION	Zn Tot/Ave	-396	-21.4	-1,078	-32.0	0	0	0.000	-2,989	-30.9	0	0.0
175-ELEC	Zn Tot/Ave	-88	-21.4	-524	-32.0	0	0	0.000	0	0.0	0	0.0
174F-CORRIDOR	Zn Tot/Ave	0	0.0	0	0.0	0	0	0.000	0	0.0	0	0.0
AHU	Sys Tot/Ave	-784	-21.4	-3,086	-32.0	0	0	0.000	-3,294	-31.0	0	0.0
AHU	Sys Block	-787	-21.4	-3,082	-32.0	0	0	0.000	-3,294	-31.0	0	0.0

		ROOF				SKYLIGHT						
System Zone Room		Plenum Sensible Load	Plenum CLTD	Space Sensible Load	Space CLTD	Plenum Solar	Space Solar	Solar	Plenum Conduction Load	Plenum CLTD	Space Conduction Load	Space CLTD
		Btu/h	°F	Btu/h	°F	Btu/h	Btu/h	CLF	Btu/h	°F	Btu/h	°F
174E-OFFICE	Zn Tot/Ave	-420	-21.4	0	-32.0	0	0	0.000	0	0.0	0	0.0
175A-OFFICE	Zn Tot/Ave	-214	-21.4	0	-32.0	0	0	0.000	0	0.0	0	0.0
175B-OFFICE	Zn Tot/Ave	-214	-21.4	0	-32.0	0	0	0.000	0	0.0	0	0.0
175C-OFFICE	Zn Tot/Ave	-214	-21.4	0	-32.0	0	0	0.000	0	0.0	0	0.0
175D-OFFICE	Zn Tot/Ave	-214	-21.4	0	-32.0	0	0	0.000	0	0.0	0	0.0
174-ENTRY/RECEPTION	Zn Tot/Ave	-634	-21.4	0	-32.0	0	0	0.000	0	0.0	0	0.0
175-ELEC	Zn Tot/Ave	-123	-21.4	0	-32.0	0	0	0.000	0	0.0	0	0.0
174F-CORRIDOR	Zn Tot/Ave	-706	-21.4	0	-32.0	0	0	0.000	0	0.0	0	0.0
AHU	Sys Tot/Ave	-2,739	-21.4	0	-32.0	0	0	0.000	0	0.0	0	0.0
AHU	Sys Block	-2,739	-21.4	0	-32.0	0	0	0.000	0	0.0	0	0.0

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System Zone Room		FLOOR		PARTITION		INFILTRATION		CEILING		Envelope Total Btu/h
		Load	CLTD	Load	CLTD	Airflow	Sensible	Plenum Dry Bulb Temp	Load	
		Btu/h	°F	Btu/h	°F	cfm	Btu/h	°F	Btu/h	
174E-OFFICE	Zn Tot/Ave	-232	-32.0	-1,020	-20.0	0	0	59.4	-525	-4,286
175A-OFFICE	Zn Tot/Ave	0	0.0	-739	-20.0	0	0	59.4	-268	-1,220
175B-OFFICE	Zn Tot/Ave	0	0.0	-732	-20.0	0	0	59.4	-268	-1,213
175C-OFFICE	Zn Tot/Ave	0	0.0	-739	-20.0	0	0	59.4	-268	-1,220
175D-OFFICE	Zn Tot/Ave	0	0.0	-739	-20.0	0	0	59.4	-268	-1,220
174-ENTRY/RECEPTION	Zn Tot/Ave	-306	-32.0	-2,504	-20.0	0	0	59.4	-793	-8,700
175-ELEC	Zn Tot/Ave	-75	-32.0	-1,657	-32.0	0	0	59.4	-154	-2,621
174F-CORRIDOR	Zn Tot/Ave	0	0.0	-4,136	-20.0	0	0	59.4	-883	-5,725
AHU	Sys Tot/Ave	-613	-32.0	-12,264	-21.1	0	0	59.4	-3,426	-26,206
AHU	Sys Block	-613	-32.0	-12,264	-21.1	0	0	59.4	-3,426	-26,205

UNDER FLOOR		SUPPLY AIR TEMPERATURES AIRFLOWS					CONDUCTION HEAT GAIN / LOSSES				
		Supply Airflow into Uflr Plen	Uflr Plen Air Leakage To Space	--- Supply Temperature ---		Uflr Plenum Air Heat Pickup	Conduction From Adj Ceiling Plen	Conduction From Adj Ceiling No Plen	Conduction From Exp Floor Slab	Conduction From Ext Wall	Conduction Into Space
		cfm	cfm	°F	°F	°F	Btu/h	Btu/h	Btu/h	Btu/h	Btu/h
174E-OFFICE	Zn Tot/Ave	0	0	0.0	0.0	0.0	0	0	0	0	0
175A-OFFICE	Zn Tot/Ave	0	0	0.0	0.0	0.0	0	0	0	0	0
175B-OFFICE	Zn Tot/Ave	0	0	0.0	0.0	0.0	0	0	0	0	0
175C-OFFICE	Zn Tot/Ave	0	0	0.0	0.0	0.0	0	0	0	0	0
175D-OFFICE	Zn Tot/Ave	0	0	0.0	0.0	0.0	0	0	0	0	0
174-ENTRY/RECEPTION	Zn Tot/Ave	0	0	0.0	0.0	0.0	0	0	0	0	0
175-ELEC	Zn Tot/Ave	0	0	0.0	0.0	0.0	0	0	0	0	0
174F-CORRIDOR	Zn Tot/Ave	0	0	0.0	0.0	0.0	0	0	0	0	0
AHU	Sys Tot/Ave	0	0	0.0	0.0	0.0	0	0	0	0	0
AHU	Sys Block	0	0	0.0	0.0	0.0	0	0	0	0	0