

### Project Information

For: RESIDENTIAL PROJECT  
MANUAL J CALCULATION EXAMPLE

### Design Information

	Htg	Clg	Method	Infiltration	
Outside db (°F)	0	95	Method	Simplified	
Inside db (°F)	70	75	Construction quality	Average	
Design TD (°F)	70	20	Fireplaces		0
Daily range	-	M			
Inside humidity (%)	30	50			
Moisture difference (gr/lb)	29	46			

#### HEATING EQUIPMENT

Make	CARRIER
Trade	
Model	59SC2D080E17--16
AHRI ref	
Efficiency	92.1 AFUE
Heating input	80000 Btuh
Heating output	75000 Btuh
Temperature rise	59 °F
Actual air flow	1175 cfm
Air flow factor	0.027 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	

#### COOLING EQUIPMENT

Make	CARRIER
Trade	
Cond	24ACC436A003
Coil	CNPVP4217ALA
AHRI ref	
Efficiency	12.0 EER, 15 SEER
Sensible cooling	26400 Btuh
Latent cooling	6190 Btuh
Total cooling	32590 Btuh
Actual air flow	1175 cfm
Air flow factor	0.049 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.88

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
FAMILY RM	437	6977	5595	186	276
BRK/ KITCHEN	418	5568	4493	148	221
B. PAN	49	648	162	17	8
PANTRY	42	0	0	0	0
DINING RM	195	2233	1989	59	98
LIVING RM	180	3614	2710	96	133
FOYER	88	2320	1182	62	58
PR	32	740	185	20	9
MUD RM	55	1087	339	29	17
WIC #5	20	370	92	10	5
BATH #5	50	1617	719	43	35
OFFICE	168	2141	1954	57	96
STAIRS	96	0	0	0	0
HALL	150	0	0	0	0

*Bold/italic values have been manually overridden*

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

MEDIA RM		304	2796	766	74	38
REC RM		551	5640	2348	150	116
BEDROOM #6		221	2460	879	66	43
BATH #6		72	566	45	15	2
EXERCISE RM		228	1884	153	50	8
MECH RM		252	2255	187	60	9
B STAIRS/ HALL		220	385	0	10	0
WET BAR		132	836	62	22	3
<hr/>						
ZONE 1	d	3960	44136	23862	1175	1175
Other equip loads			0	0		
Equip. @ 1.00 RSM				23862		
Latent cooling				3160		
<hr/>						
TOTALS		3960	44136	27022	1175	1175

*Bold/italic values have been manually overridden*

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



### Project Information

For: RESIDENTIAL PROJECT  
MANUAL J CALCULATION EXAMPLE

### Design Information

	Htg	Clg	Method	Infiltration
Outside db (°F)	0	95	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	70	20	Fireplaces	
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	29	46		

#### HEATING EQUIPMENT

Make	CARRIER
Trade	
Model	25HCE442A003
AHRI ref	
Efficiency	8.2 HSPF
Heating input	
Heating output	41000 Btuh @ 47°F
Temperature rise	29 °F
Actual air flow	1279 cfm
Air flow factor	0.027 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	
Capacity balance point = 0 °F	

#### COOLING EQUIPMENT

Make	CARRIER
Trade	
Cond	25HCE442A003
Coil	FB4CNP042L
AHRI ref	
Efficiency	11.5 EER, 14 SEER
Sensible cooling	28870 Btuh
Latent cooling	8960 Btuh
Total cooling	37830 Btuh
Actual air flow	1279 cfm
Air flow factor	0.044 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.90

Backup: CARRIER  
Input = 10 kW, Output = 34121 Btuh, 100 AFUE

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
M BEDROOM	424	8999	4701	244	205
SITTING RM	154	3318	2499	90	109
WIC #4	40	1077	319	29	14
BEDROOM #4	213	6085	3666	165	160
OPEN TO BELOW	117	2717	2572	74	112
BATH #4	56	135	94	4	4
BEDROOM #3	260	6891	3921	187	171
WIC #3	42	1814	510	49	22
BATH #3	63	1790	985	49	43
BATH #2	50	1089	792	30	34
BEDROOM #2	180	3503	3156	95	137
LDRY	88	212	147	6	6
STAIRS #2/ HALL	267	707	463	19	20
M WIC #2	63	152	105	4	5

*Bold/italic values have been manually overridden*

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

WIC #2		42	101	70	3	3
M WIC #1		88	2226	1390	60	61
M PR		24	903	644	25	28
M BATH		214	5402	3336	147	145
<hr/>						
ZONE 2	d	2385	47122	29371	1279	1279
Other equip loads			0	0		
Equip. @ 1.00 RSM				29371		
Latent cooling				3338		
<hr/>						
TOTALS		2385	47122	32709	1279	1279

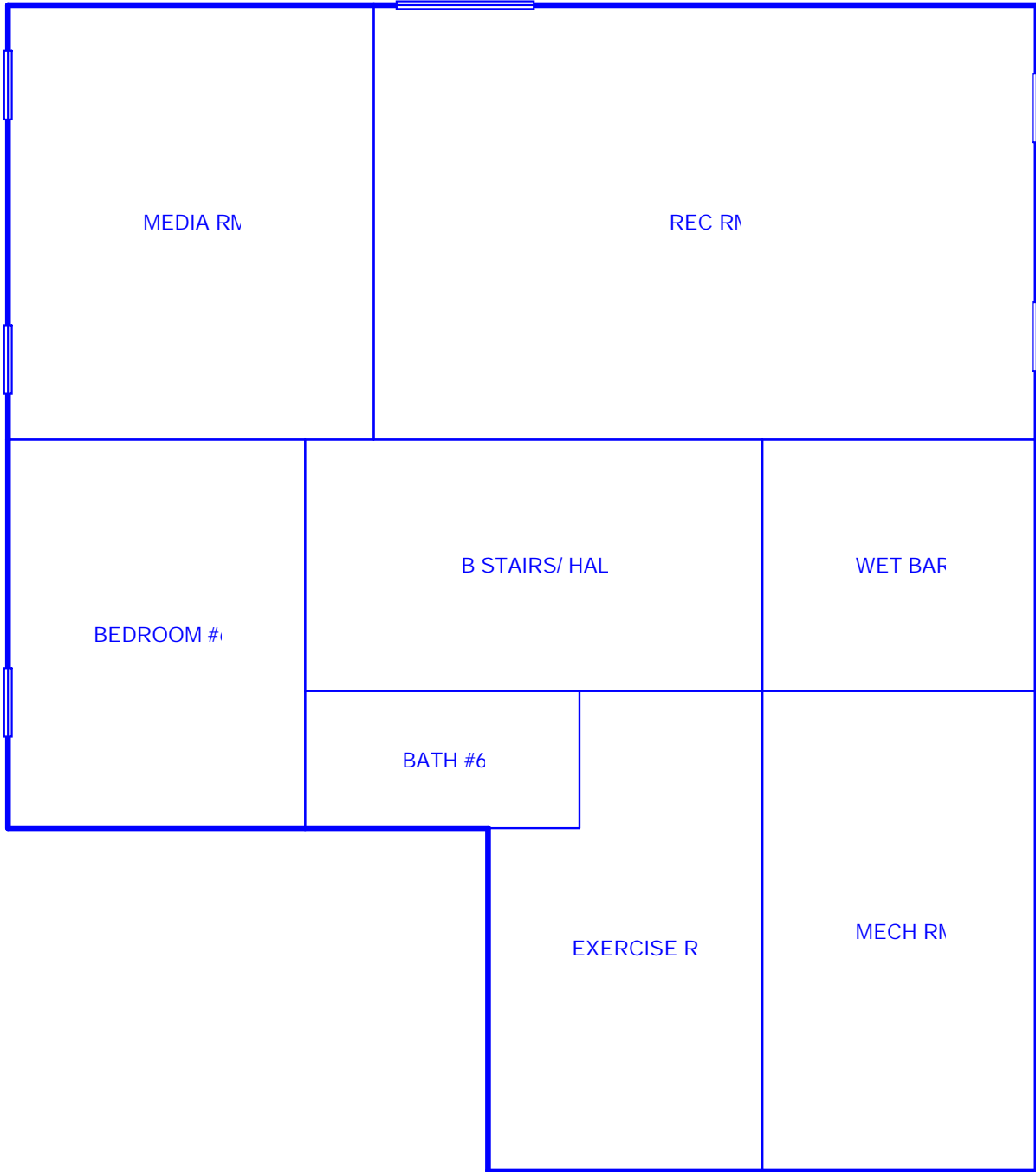
*Bold/italic values have been manually overridden*

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



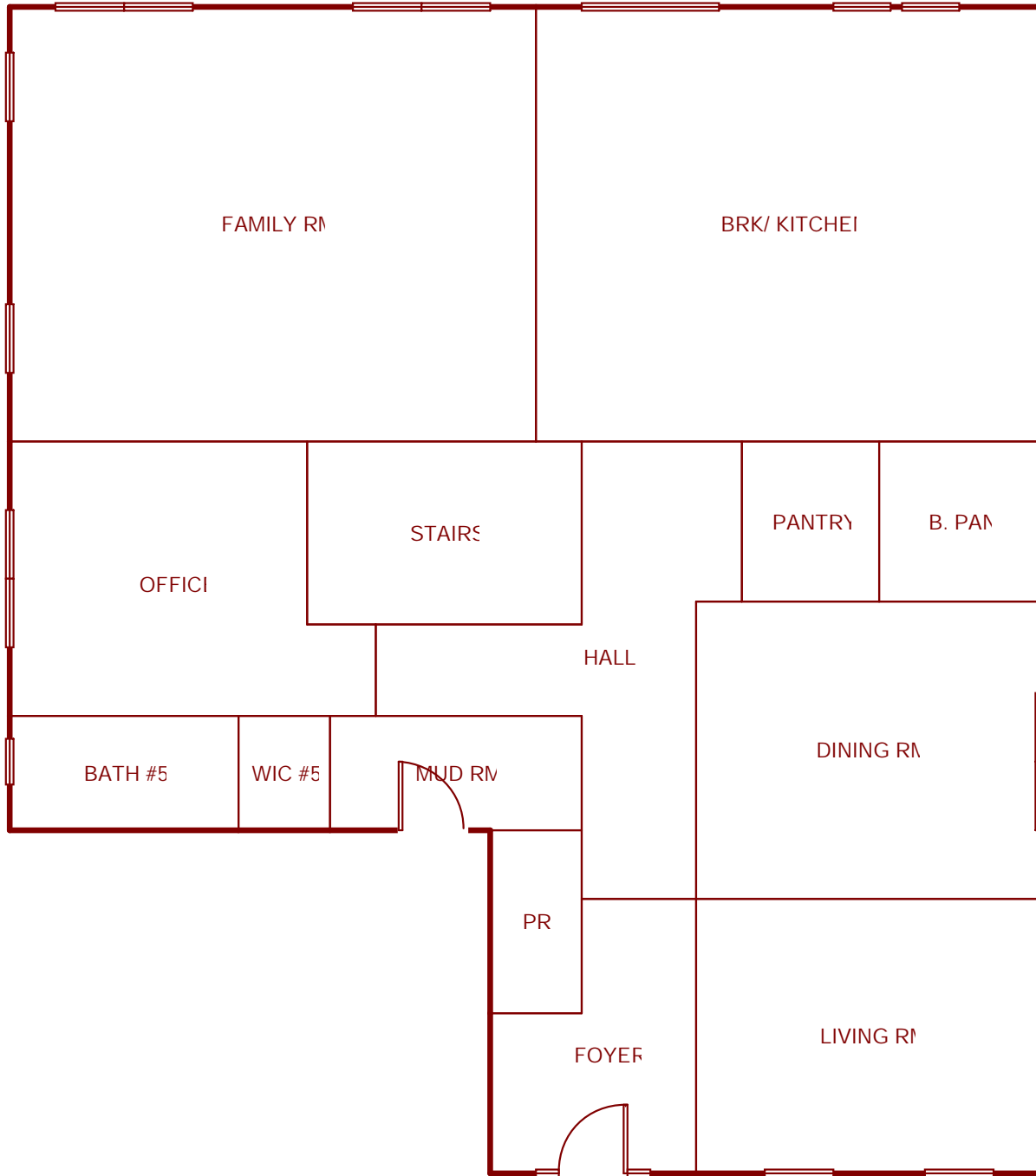


### Basement





### 1st Floor

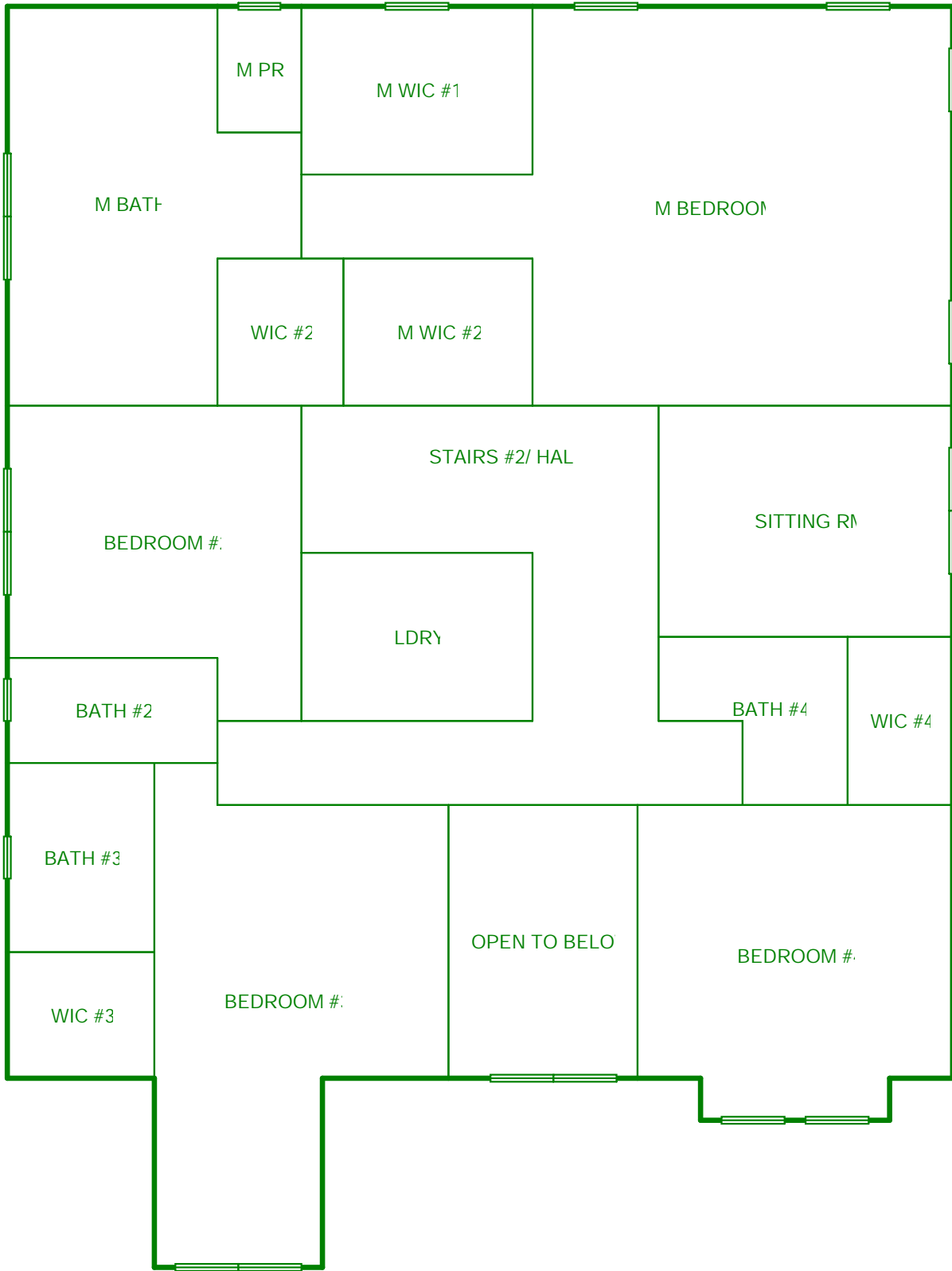


**Job #:**  
**Performed for:**  
RESIDENTIAL PROJECT  
MANUAL J CALCULATION EXAMPLE

**Scale: 1 : 87**  
Page 2  
Right-Suite® Universal 2019  
19.0.19 RSU06543  
2020-Dec-25 23:06:23  
...mple\Calculation Sample- MJ8.rup



### 2nd Floor



**Job #:**  
**Performed for:**  
RESIDENTIAL PROJECT  
MANUAL J CALCULATION EXAMPLE

**Scale: 1 : 87**  
Page 3  
Right-Suite® Universal 2019  
19.0.19 RSU06543  
2020-Dec-25 23:06:23  
...mple\Calculation Sample- MJ8.rup