

Accu-Size Heating & Cooling Home Analysis

Cooling load (heat gain) - 95 degree day

SQUARE FOOTAGE OF WINDOWS		HEAT GAIN
North (single)	X 26 =	
North (double)	<u>33</u> X 21 =	<u>693</u>
NE & NW (single)	X 45 =	
NE & NW (double)	X 35 =	
East & West (single)	X 60 =	
East & West (double)	<u>31</u> X 49 =	<u>1519</u>
SE & SW (single)	X 50 =	
SE & SW (double)	X 40 =	
South (single)	X 36 =	
South (double)	<u>40</u> X 25 =	<u>1000</u>

SQUARE FOOTAGE OF DOORS		HEAT GAIN
Wood (no storm door)	<u>30</u> X 13 =	<u>390</u>
Wood (w/storm door)	X 9 =	
Insulated metal door	X 6 =	

SQUARE FOOTAGE OF NET WALLS		HEAT GAIN
Wall perimeter <u>168</u> X <u>9</u> height <u>1512</u> less		
<u>104</u> glass and door area = net wall <u>1408</u>		
No insulation	X 8 =	
R-13 (3.5" insulation)	<u>1408</u> X 3 =	<u>4224</u>
R-19 (6" insulation)	X 2 =	

SQUARE FOOTAGE OF CEILING		HEAT GAIN
No insulation	X 22 =	
R-11 (3" insulation)	X 4.1 =	
R-19 (6" insulation)	<u>1332</u> X 2.6 =	<u>3462</u>
R-30 (10" insulation)	X 1.6 =	

SQUARE FOOTAGE OF FLOOR		HEAT GAIN
No insulation	X 3 =	
Carpet (no insulation)	X 2 =	
R-11 (3"+ insulation)	<u>1332</u> X 1 =	<u>1332</u>
Floor on slab	X 0 =	<u>0</u>

INFILTRATION / VENTILATION		HEAT GAIN
Home square feet <u>1332</u>	X 3.5 =	<u>4662</u>

INTERNAL GAINS		HEAT GAIN
Number of people <u>3</u>	X 530 =	<u>1590</u>
Kitchen & bath allowance		<u>1250</u>
Subtotal BTU/h heat gain	=	<u>20,122</u>

GAINS FROM DUCTWORK		HEAT GAIN
In crawl space - (subtotal BTU/h X .09)		<u>1811</u>
In attic - (subtotal BTU/h X .13)		<u>2616</u>
Total BTU/h heat gain	=	<u>25,549</u>

Heating load (heat loss) - 0 degree day

SQUARE FOOTAGE OF WINDOWS		HEAT LOSS
Single glass	X 97 =	
Double glass	<u>104</u> X 69 =	<u>7176</u>

SQUARE FOOTAGE OF DOORS		HEAT LOSS
Single glass patio	X 99 =	
Double glass patio	X 72 =	
Wood (no storm door)	<u>30</u> X 75 =	<u>2250</u>
Wood (w/storm door)	X 46 =	
Insulated metal door	X 35 =	

SQUARE FOOTAGE OF NET WALLS		HEAT LOSS
Frame (no insulation)	X 20 =	
Frame (3.5" insulation)	<u>1408</u> X 7 =	<u>9856</u>
Frame (6" insulation)	X 5 =	
Masonry (no insulation)	X 37 =	
Masonry (1" insulation)	X 11 =	

SQUARE FOOTAGE OF CEILING		HEAT LOSS
No insulation	X 25 =	
R-11 (3" insulation)	X 7 =	
R-19 (6" insulation)	<u>1332</u> X 4 =	<u>5328</u>
R-30 (10" insulation)	X 3 =	

SQUARE FOOTAGE OF FLOOR OVER CRAWL AREA		HEAT LOSS
No insulation	X 19 =	
Carpet (no insulation)	X 9 =	
R-11 (3"+ insulation)	<u>1332</u> X 6 =	<u>7992</u>

SQUARE FOOTAGE OF FLOOR OVER BASEMENT		HEAT LOSS
No insulation	X 2 =	
Carpet or insulation	X 1 =	

PERIMETER OF SLAB FLOOR		HEAT LOSS
Slab (no insulation)	X 57 =	
Slab (edge insulation)	X 22 =	

INFILTRATION / VENTILATION		HEAT LOSS
Home square feet <u>1332</u>	X 4.9 =	<u>6527</u>

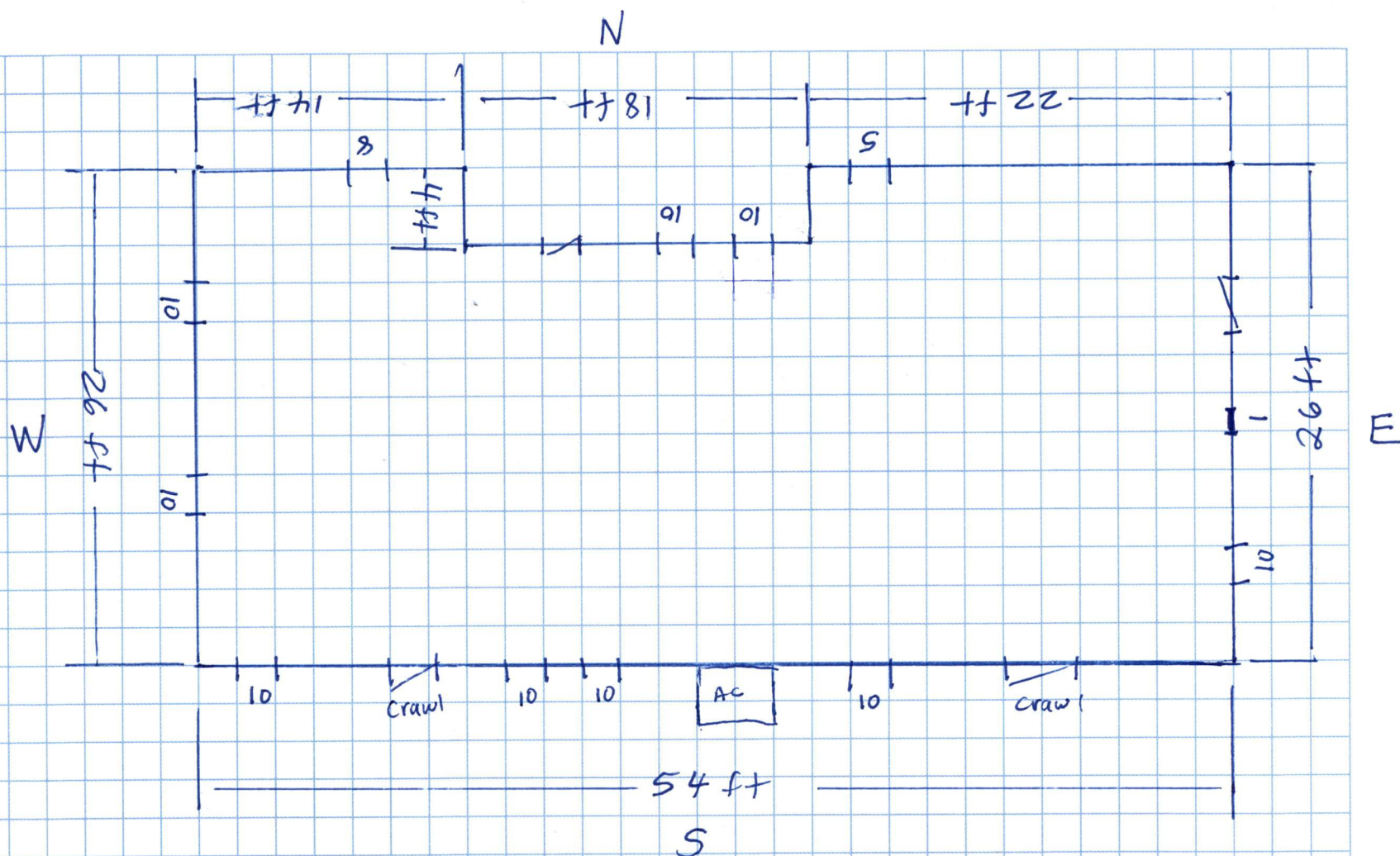
Subtotal BTU/h heat loss = **39129**

LOSSES FROM DUCTWORK		HEAT LOSS
In crawl space - (subtotal BTU/h X .10)		<u>3913</u>
In attic - (subtotal BTU/h X .08)		<u>3130</u>

Total BTU/h heat loss = **46172**

80% furnace efficiency loss	X .25 =	<u>11543</u>
90% furnace efficiency loss	X .12 =	

Total BTU/h input needed = **57,715**



Windows - DBL GLASS

DOOR - WOOD (NO STORM DOOR) 30 ft²

Walls - R-13 (3.5" insulation)

Ceiling - R-19 (6" insulation)

Floor - R-11 (3" + insulation)

2 Bedrooms	ASHRAE	1st Bedroom - 2 people
		2nd
		3rd
		...