TABLE 4. APPROXIMATE COSTS OF ALL-YEAR AIR CONDITIONING[a,b]

APPLICATION	SELLING PRICE PER UNIT INDICATED											
	SQ FT NET AREA			PERSON			TON REFRIGERATION			CFM SUPPLY AIR		
	LOW	AVG	HIGH	LOW	AVG	HIGH	LOW	AVG	HIGH	LOW	AVG	HIGH
Banks	$1.25	$2.00	$3.50	$80	$140	$320	$350	$480	$700	$0.95	$1.40	$2.75
Department Stores — Basement	0.60	1.00	1.15	25	40	100	250	325	400	0.60	0.80	1.00
Department Stores — Main Floor	0.60	1.05	1.25	25	40	80	250	325	400	0.60	0.75	0.90
Department Stores — Upper Floors	0.60	0.90	1.10	30	45	100	300	350	400	0.60	0.80	1.00
Hotels—Guest Rooms				$240[c]	$300[c]	$420[c]						
Office Buildings	$0.85	$1.25	$2.00	110	135	180	$300	$375	$500	$0.75	$1.05	$1.50
Offices—Small Suites	1.00	1.75	3.25	110	180	350	300	450	800	0.75	1.25	2.50
Restaurants	1.40	2.20	3.50	15	18	25	215	280	400			
Specialty Shops — Barber Shops and Beauty Parlors	$1.50	$2.50	$4.00	$50	$100	$150	$325	$400	$500	$0.70	$1.00	$1.50
Specialty Shops — Dress Shops	1.25	1.50	2.00	45	55	75	230	275	350			
Specialty Shops — Drug Stores	1.25	1.50	2.00	45	55	75	240	275	325			
Specialty Shops — Five-and-Ten	0.90	1.20	2.80	22	33	55	220	270	425	0.80	0.95	1.50
Specialty Shops — Shoe Stores	0.95	1.20	1.75	35	40	60	230	275	350			
Theaters				$9[d]	$15[d]	$23[d]	$215	$300	$450	$0.65	$1.00	$1.25

[a]Modern Air Conditioning, Heating and Ventilating, by W. H. Carrier, R. E. Cherne and W. A. Grant (*Pitman Publishing Corp.* 1940, p. 64).

[b]There is a wide variation in unit prices such as shown above, due to differences in load concentration and in complexity of physical layout. Prices cover air-conditioning work only, for year-round use (except the *low* column, which in general includes summer cooling only). Net area (square feet) includes corridors, but excludes elevators and service spaces. *Excluded* are the cost of plumbing and steam connections, electrical wiring, painting and redecorating, building construction and alterations, and boilers or burners. Low figures in general are simply direct expansion systems using city water for condensing. High figures are usually chilled water systems with cooling towers or evaporative condensers, and may be considered high quality systems as well.

[c]Price per room.

[d]Price per seat.

maintenance generally go hand in hand. If a long depreciation period is to be used, then the item for maintenance, repair and replacement of wearing parts must be greater than for a short depreciation period.

Obsolescence depends mainly on time required for the equipment to become out-moded. Air conditioning, particularly, would probably suffer more from obsolescence in small plants than in large establishments. In addition the obsolescence of the building or property in which the equipment is installed may have a similar effect upon the equipment.

An approximation of the useful life of various items of equipment and parts of systems is shown in Table 5. It should be noted that if an appropriate maintenance item is not established, the rate of equipment deterioration may be substantially increased.

TABLE 5. APPROXIMATE LIFE OF EQUIPMENT

(*Including Obsolescence and Deterioration*)[a]

	LIFE IN YEARS
1. HEAT PRODUCING EQUIPMENT	
(a) Boilers	15
(b) Stokers and burners	10
2. HEAT DISTRIBUTING EQUIPMENT	
(a) Piping—copper	20
(b) Piping—iron	10
(c) Radiation—concealed	12
(d) Radiation—direct	10
(e) Valves and specialties	5
3. AIR HANDLING EQUIPMENT	
(a) Filters—automatic	8
(b) Heating and cooling coils	10
(c) Spray humidifiers and dehumidifiers	10
(d) Fans	10
(e) Air conditioning units	10
(f) Motors	15
(g) Electrical starting equipment	8
(h) Pneumatic control systems	10
(i) Electric control systems	8
4. AIR DISTRIBUTING EQUIPMENT	
(a) Ductwork	20
(b) Outlets, grilles	20
(c) Duct insulation	10
(d) Painting	
5. REFRIGERATING EQUIPMENT	
(a) Centrifugal refrigerating machines	15
(b) Reciprocating refrigerating machines	10
(c) Motors and starters (see Item 3 above)	
(d) Piping—copper	20
(e) Piping—steel	15
(f) Pumps	15
6. WATER SAVING DEVICES	
(a) Evaporative condensers	10
(b) Cooling towers	10
(c) Wells	Varies Widely

[a]Modern Air Conditioning, Heating and Ventilating, W. H. Carrier, R. E. Cherne and W. A. Grant (*Pitman Publishing Corp.* 1940, p. 66).