

## GARAGES – MINI-LUBE AND SERVICE/REPAIR SHEDS



**AVERAGE CLASS C**

**OCCUPANCY DESCRIPTION:** Mini-lube garages are designed for quick-maintenance lube and oil changes and may have drive-thru bays. There is usually adequate lighting and adequate plumbing using commercial plumbing fixtures.

The floor is concrete, with office areas having resilient floor covering. The size or amount of office area is commensurate with the overall quality. Exterior walls generally have some large openings for overhead doors and minimal fenestration.

Service garages/repair sheds are buildings designed primarily for vehicular repair and maintenance. They are characterized by their

low-cost, open fronts (no doors), unfinished interiors, concrete or asphalt floors, with adequate lighting and outlets. These buildings are typically found in car dealerships and large fleet operations.

**INCLUDED IN COSTS:** Architects' fees and contractors' overhead and profit. Sufficient heating to protect materials and personnel from freezing. Some shop cabinets and work space are included in the better-quality service/repair sheds. Elevators in service/repair sheds are included in costs designated with an asterisk (\*).

**NOT INCLUDED IN COSTS:** Sprinklers, hoists or service equipment.

### GARAGE – MINI-LUBE

**SQUARE FOOT COST TABLE**

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>C</b>	Good	\$88.70	Good ornamental block and parapet, storefront lobby	Good drywall, acoustic tile, pavers, vinyl comp. tile, carpet, good office/waiting room	Good lighting and plumbing, service outlets	Forced air
	Average	68.55	Masonry bearing walls or frame, roll-up doors	Painted walls, slab, some partitions, floor and ceiling finish, waiting area	Adequate lighting and plumbing, service outlets	Space heaters
	Low cost	54.25	Block, cheap brick, tilt-up, light construction	Painted wall, slab, few partitions, small office area	Minimum lighting and plumbing, service outlets	Space heaters
<b>D</b>	Good	86.75	Good masonry veneer, EIFS, decorative parapet, storefront lobby	Good drywall, acoustic tile, pavers, vinyl comp. tile, carpet, good office/waiting room	Good lighting and plumbing, service outlets	Forced air
	Average	66.65	Frame and stucco, siding, masonry veneer, some trim, roll-up doors	Some gypsum walls and ceiling, slab, some finished floor, waiting area	Adequate lighting and plumbing, service outlets	Space heaters
	Low cost	52.40	Stucco or siding on wood or steel	Some gypsum walls and ceiling, slab, small office area	Minimum lighting and plumbing, service outlets	Space heaters
<b>S</b>	Average	62.15	Pre-engineered, steel studs or frame, good panels, roll-up doors	Some gypsum walls, acoustic tile, slab, some finished floor, waiting area	Adequate lighting and plumbing, service outlets	Space heaters
	Low cost	49.25	Pre-engineered frame, metal siding	Some gypsum walls, acoustic tile, slab, small office area	Minimum lighting and plumbing, service outlets	Space heaters
<b>CDS</b>	Average basement	28.90	Reinforced concrete or block, unfinished interior	Unfinished, storage areas, some partitions, service walkways	Minimum lighting and plumbing, drains	None

### SERVICE/REPAIR SHED<sup>†</sup>

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>C</b>	Good	\$24.25	Open front, block or low-cost brick, good roof	Unfinished, concrete floor, shop area and cabinets	Good lighting and outlets, adequate plumbing	Space heaters
	Average	17.15	Open front, tilt-up, block, steel or wood truss, average cover	Unfinished, concrete or asphalt floor, some cabinets, work area	Adequate electrical and water service and outlets	None
	Low cost	12.95	End walls only, concrete block, shed or flat roof	Unfinished, concrete or asphalt floor	Adequate electrical and water service and outlets	None
<b>DPOLE</b>	Good	19.60	Open front, good metal siding on pole frame	Unfinished, concrete floor, shop area and cabinets	Good lighting and outlets, adequate plumbing	Space heaters
	Average	13.80	Open front, metal or board on light pole frame	Unfinished, concrete or asphalt floor, some cabinets, work area	Adequate electrical and water service and outlets	None
	Low cost	10.60	End walls only, low-cost siding on wood pole frame	Unfinished, concrete or asphalt floor	Adequate electrical and water service and outlets	None
<b>S</b>	Good	20.60	Open front, good metal and steel frame	Unfinished, concrete floor, shop area and cabinets	Good lighting and outlets, adequate plumbing	Space heaters
	Average	14.60	Open front, enameled siding on light frame	Unfinished, concrete or asphalt floor, some cabinets, work area	Adequate electrical and water service and outlets	None
	Low cost	11.20	End walls only, low-cost siding on steel frame	Unfinished, concrete or asphalt floor	Adequate electrical and water service and outlets	None

<sup>†</sup>**NOTE:** Use total length of walled sides as the perimeter in the floor area/perimeter table. For repair buildings, see Page CAL 62.

## GARAGES – MINI-LUBE AND SERVICE/REPAIR SHEDS

**REFINEMENTS:** On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

**1**

<p><b>HOISTS:</b> Automobile hoists cost \$6,000 to \$9,275 each. Truck hoists, \$8,250 to \$15,500. See Section UIP 14 for greater detail.</p> <p>Walk-in service pits cost \$1,650 to \$3,575 per bay.</p>	<p><b>SPRINKLERS:</b> Apply to sprinklered area.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Sq. Ft.</th> <th style="text-align: left;">LOW</th> <th style="text-align: left;">AVG.</th> <th style="text-align: left;">GOOD</th> <th style="text-align: left;">EXCL.</th> </tr> </thead> <tbody> <tr> <td>1,000</td> <td>\$2.60</td> <td>\$3.40</td> <td>\$4.65</td> <td>\$6.15</td> </tr> <tr> <td>2,000</td> <td>2.40</td> <td>3.10</td> <td>4.15</td> <td>5.40</td> </tr> <tr> <td>5,000</td> <td>2.05</td> <td>2.65</td> <td>3.50</td> <td>4.55</td> </tr> <tr> <td>10,000</td> <td>1.85</td> <td>2.35</td> <td>3.10</td> <td>4.00</td> </tr> </tbody> </table>	Sq. Ft.	LOW	AVG.	GOOD	EXCL.	1,000	\$2.60	\$3.40	\$4.65	\$6.15	2,000	2.40	3.10	4.15	5.40	5,000	2.05	2.65	3.50	4.55	10,000	1.85	2.35	3.10	4.00
Sq. Ft.	LOW	AVG.	GOOD	EXCL.																						
1,000	\$2.60	\$3.40	\$4.65	\$6.15																						
2,000	2.40	3.10	4.15	5.40																						
5,000	2.05	2.65	3.50	4.55																						
10,000	1.85	2.35	3.10	4.00																						

**2**

<b>HEATING AND COOLING</b>					
These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.					
HEATING ONLY	Sq. Ft. Costs	HEATING & COOLING	Sq. Ft. Costs	COOLING ONLY	Sq. Ft. Costs
Electric cable or baseboard . . .	\$3.15	Package A.C. (short ductwork) . . . .	\$ 6.85	Central refrigeration (zoned) . . . . .	\$5.95
Electric wall heaters . . . . .	1.35	Warm and cool air (zoned) . . . . .	9.05	package (short ductwork) . . . . .	4.05
Forced air furnace . . . . .	3.45	Hot/chilled water (zoned) . . . . .	15.10	Central evaporative . . . . .	2.70
Hot water . . . . .	6.15	Heat pump system . . . . .	8.05	Pkg. refriger. . \$1,180 to \$1,540 per ton capacity	
Space heaters, with fan . . . . .	1.60			Evap. coolers . \$160 to \$270 per MCFM capacity	
radiant . . . . .	1.90				
Steam (including boiler) . . . . .	5.50	Small indiv. heat pumps cost \$1,125 to \$1,510		<b>VENTILATION ONLY</b>	
without boiler . . . . .	4.65	per ton of rated capacity.		Vent. (blowers/ducts) . . . . .	\$1.05

**3**

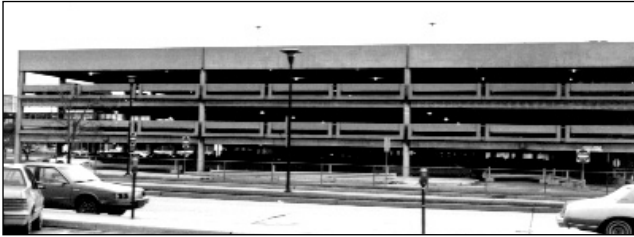
<b>HEIGHT REFINEMENTS</b>			
<b>STORY HEIGHT MULTIPLIERS:</b> Multiply base cost by following multipliers for any variation in average story height.			
Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
10	.92	18	1.09
12	.96	20	1.13
14	1.00 (base)	22	1.18
16	1.04	24	1.23

**4**

Average Floor Area Sq. Ft./Story	AVERAGE PERIMETER														Average Floor Area Sq. Ft./Story
	100	125	150	200	225	250	275	300	350	400	450	500	550	600	
<b>1,000</b>	1.23	1.33	1.43	1.63	----	----	----	----	----	----	----	----	----	----	<b>1,000</b>
<b>1,500</b>	1.10	1.17	1.23	1.36	1.43	1.50	----	----	----	----	----	----	----	----	<b>1,500</b>
<b>2,000</b>	----	1.08	1.13	1.23	1.28	1.33	1.38	----	----	----	----	----	----	----	<b>2,000</b>
<b>2,500</b>	----	----	1.07	1.15	1.19	1.23	1.27	1.31	----	----	----	----	----	----	<b>2,500</b>
<b>3,000</b>	----	----	----	1.10	1.13	1.17	1.20	1.23	1.30	----	----	----	----	----	<b>3,000</b>
<b>3,500</b>	----	----	----	1.06	1.09	1.12	1.15	1.17	1.23	1.29	----	----	----	----	<b>3,500</b>
<b>4,000</b>	----	----	----	----	1.06	1.08	1.11	1.13	1.18	1.23	1.28	----	----	----	<b>4,000</b>
<b>4,500</b>	----	----	----	----	----	1.06	1.08	1.10	1.14	1.19	1.23	1.28	1.32	----	<b>4,500</b>
<b>5,000</b>	----	----	----	----	----	1.03	1.05	1.07	1.11	1.15	1.19	1.23	1.27	----	<b>5,000</b>
<b>5,500</b>	----	----	----	----	----	----	1.03	1.05	1.09	1.12	1.16	1.20	1.23	1.27	<b>5,500</b>
<b>6,000</b>	----	----	----	----	----	----	1.02	1.03	1.07	1.10	1.13	1.17	1.20	1.23	<b>6,000</b>
<b>7,000</b>	----	----	----	----	----	----	----	1.00	1.03	1.06	1.09	1.12	1.15	1.17	<b>7,000</b>

**5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.**

## GARAGES – PARKING STRUCTURES



**AVERAGE CLASS B PARKING STRUCTURE**

**OCCUPANCY DESCRIPTION:** Built above and below grade, these structures are designed for live-load storage of autos. Independent abovegrade structures commonly have either no exterior walls or partial exterior walls. The independent abovegrade structure is priced by the number of stories and will always have one more level (ground or roof) of parking than stories, while the underground structure will have a load-bearing roof for a park or plaza at grade level. While the lower-quality structures do not have office area, the better qualities have some small office and service areas. There is low-level lighting and adequate plumbing for restrooms and service areas.



**GOOD CLASS B PARKING STRUCTURE**

The intermediate and ground-level parking levels are found underneath elevated buildings and include all framing, ramps and stairs necessary.

**INCLUDED IN COSTS:** Architects' fees and contractors' overhead and profit. Elevators are included in costs designated with an asterisk (\*).

**NOT INCLUDED IN COSTS:** Sprinklers, landscaping on roof of belowgrade structures, ticketing equipment or hoists.

### ABOVE GROUND STRUCTURES

**SQUARE FOOT COST TABLE**

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>A</b>	Good	\$45.35	Partial walls, brick or concrete, ornamentation	Unfinished, except good office and service area	*Reading-level lighting, restrooms and service plumbing	None
	Average	34.95	Partial walls, brick, block, concrete, little trim	Unfinished, small office and service area	*Low-level lighting, drains, minimum restroom for office	None
<b>B</b>	Good	43.00	Partial walls, brick or concrete, ornamentation	Unfinished, except good office and service area	*Reading-level lighting, restrooms and service plumbing	None
	Average	33.45	Partial walls, brick, block, concrete, plain finish	Unfinished, small office and service area	*Low-level lighting, drains, minimum restroom for office	None
	Low cost	26.05	Low parapets, precast frame and floors, minimum finish	Unfinished, minimum extras	*Minimum lighting and plumbing	None
<b>S</b>	Low cost	24.10	Demountable type, exposed steel frame	Unfinished, some masonry shear walls, minimum extras	Low-level lighting, drains, minimum personnel plumbing	None
	Cheap	18.90	Demountable type, exposed steel frame, cable rails	Unfinished, no extras	Minimum lighting, drains only	None

### UNDERGROUND STRUCTURES

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>A-B</b>	Average	\$63.60	Unfinished concrete, water-proofed walls and load-bearing roof at grade level	Unfinished, some office and service areas	Good lighting, restrooms and service plumbing	Package A.C.

### PARKING LEVELS (INTERMEDIATE/UNDER BUILDING)

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>A-B</b>	Excellent	\$66.70	Best curtain wall panels, matching spandrel & louvers, fully encl.	Unfinished except good office, service and lobby areas	*Reading-level lighting, restrooms and service plumbing	Ventilation
	Good	51.80	Good curtain panels, masonry, partial louvers, natural vent.	Concrete with hardener, lines and stops, small office, few extras	*Adequate lighting and drains	None
	Average	41.25	Partial walls, brick, concrete, metal panels, some trim/louvers	Unfinished, concrete floor, lines, low-cost elevator lobbies	*Low-level lighting, drains	None
	Low cost <sup>†</sup>	31.55	Under building, grade level only, blind wall panels, some trim, gates	Concrete paving, lines and stops, plaster soffit; entrance lobby vestibule not included	Low-level lighting, drains	None
	Cheap <sup>†</sup>	20.15	Under building, grade level only, no walls, covered columns	Asphalt paving, lines, painted soffit; lobby/vestibule not included	Minimum lighting, drains	None
<b>CDS</b>	Good	44.60	Good panels, masonry, partial louvers, open ventilation	Concrete with hardener, lines and stops, few extras	*Adequate lighting and drains	None
	Average	34.85	Partial walls, brick, masonry or stucco panels, some trim/louvers	Unfinished, concrete floor, lines, low-cost elevator lobbies	*Low-level lighting, drains	None
	Low cost <sup>†</sup>	26.05	Under building, grade level only, some blind walls, trim and gates	Concrete or asphalt, lines, plaster soffit; vestibule entry not included	Low-level lighting, drains	None
	Cheap <sup>†</sup>	15.85	Under building, grade level only, open, no walls, exp. columns	Asphalt paving, lines, finished building soffit; lobby not included	Minimum lighting, drains	None

<sup>†</sup>Ground-level vestibule entry lobbies for elevated buildings must be added separately. See Page CAL 158.

# GARAGES – PARKING STRUCTURES

**REFINEMENTS:** On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

**1**

<p><b>ELEVATORS:</b> Buildings whose base costs include service elevators are marked with an asterisk (*). If the building under consideration has no elevators, deduct the following from the base costs so marked. For detailed costs, see Section UIP 8.</p> <p><b>Parking Structures:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Classes A/B</th> <th style="text-align: right;">Sq. Ft.</th> <th style="text-align: right;">Costs</th> </tr> <tr> <td>Good .....</td> <td style="text-align: right;">\$1.75</td> <td></td> </tr> <tr> <td>Average .....</td> <td style="text-align: right;">1.25</td> <td></td> </tr> <tr> <td>Low cost .....</td> <td style="text-align: right;">.90</td> <td></td> </tr> </table> <p><b>Parking Levels:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Classes A/B</th> <th style="text-align: right;">Sq. Ft.</th> <th style="text-align: right;">Costs</th> <th style="text-align: left;">Classes C/D/S</th> <th style="text-align: right;">Sq. Ft.</th> <th style="text-align: right;">Costs</th> </tr> <tr> <td>Excellent .....</td> <td style="text-align: right;">\$2.50</td> <td></td> <td>Good .....</td> <td style="text-align: right;">\$1.50</td> <td></td> </tr> <tr> <td>Good .....</td> <td style="text-align: right;">2.00</td> <td></td> <td>Average .....</td> <td style="text-align: right;">1.30</td> <td></td> </tr> <tr> <td>Average .....</td> <td style="text-align: right;">1.55</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				Classes A/B	Sq. Ft.	Costs	Good .....	\$1.75		Average .....	1.25		Low cost .....	.90		Classes A/B	Sq. Ft.	Costs	Classes C/D/S	Sq. Ft.	Costs	Excellent .....	\$2.50		Good .....	\$1.50		Good .....	2.00		Average .....	1.30		Average .....	1.55					<p><b>SPRINKLERS:</b> Apply to sprinklered area.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Sq. Ft.</th> <th style="text-align: right;">LOW</th> <th style="text-align: right;">AVG.</th> <th style="text-align: right;">GOOD</th> <th style="text-align: right;">EXCL.</th> </tr> <tr> <td>5,000</td> <td style="text-align: right;">\$2.05</td> <td style="text-align: right;">\$2.65</td> <td style="text-align: right;">\$3.50</td> <td style="text-align: right;">\$4.55</td> </tr> <tr> <td>10,000</td> <td style="text-align: right;">1.85</td> <td style="text-align: right;">2.35</td> <td style="text-align: right;">3.10</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>15,000</td> <td style="text-align: right;">1.75</td> <td style="text-align: right;">2.25</td> <td style="text-align: right;">2.85</td> <td style="text-align: right;">3.70</td> </tr> <tr> <td>20,000</td> <td style="text-align: right;">1.65</td> <td style="text-align: right;">2.15</td> <td style="text-align: right;">2.75</td> <td style="text-align: right;">3.50</td> </tr> <tr> <td>30,000</td> <td style="text-align: right;">1.55</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">2.55</td> <td style="text-align: right;">3.25</td> </tr> <tr> <td>50,000</td> <td style="text-align: right;">1.45</td> <td style="text-align: right;">1.85</td> <td style="text-align: right;">2.35</td> <td style="text-align: right;">2.95</td> </tr> <tr> <td>80,000</td> <td style="text-align: right;">1.35</td> <td style="text-align: right;">1.70</td> <td style="text-align: right;">2.15</td> <td style="text-align: right;">2.70</td> </tr> <tr> <td>100,000</td> <td style="text-align: right;">1.30</td> <td style="text-align: right;">1.65</td> <td style="text-align: right;">2.05</td> <td style="text-align: right;">2.60</td> </tr> <tr> <td>150,000</td> <td style="text-align: right;">1.25</td> <td style="text-align: right;">1.55</td> <td style="text-align: right;">1.95</td> <td style="text-align: right;">2.40</td> </tr> <tr> <td>200,000</td> <td style="text-align: right;">1.20</td> <td style="text-align: right;">1.45</td> <td style="text-align: right;">1.85</td> <td style="text-align: right;">2.30</td> </tr> <tr> <td>250,000</td> <td style="text-align: right;">1.15</td> <td style="text-align: right;">1.40</td> <td style="text-align: right;">1.75</td> <td style="text-align: right;">2.20</td> </tr> <tr> <td>400,000</td> <td style="text-align: right;">1.05</td> <td style="text-align: right;">1.30</td> <td style="text-align: right;">1.60</td> <td style="text-align: right;">2.00</td> </tr> </table>					Sq. Ft.	LOW	AVG.	GOOD	EXCL.	5,000	\$2.05	\$2.65	\$3.50	\$4.55	10,000	1.85	2.35	3.10	4.00	15,000	1.75	2.25	2.85	3.70	20,000	1.65	2.15	2.75	3.50	30,000	1.55	2.00	2.55	3.25	50,000	1.45	1.85	2.35	2.95	80,000	1.35	1.70	2.15	2.70	100,000	1.30	1.65	2.05	2.60	150,000	1.25	1.55	1.95	2.40	200,000	1.20	1.45	1.85	2.30	250,000	1.15	1.40	1.75	2.20	400,000	1.05	1.30	1.60	2.00
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**2**

HEATING AND COOLING					
<p>These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.</p>					
HEATING ONLY	Sq. Ft.	Costs	HEATING & COOLING	Sq. Ft.	Costs
Electric cable or baseboard ..	\$2.90		Package A.C. (short ductwork) ....	\$ 6.30	
Electric wall heaters .....	1.25		Warm and cool air (zoned) .....	8.35	
Forced air furnace .....	3.20		Hot/chilled water (zoned) .....	13.90	
Hot water .....	5.65		Heat pump system .....	7.40	
Space heaters, with fan .....	1.45				
radiant .....	1.75				
Steam (including boiler) .....	5.05		Small indiv. heat pumps cost \$1,125 to \$1,510		
without boiler .....	4.30		per ton of rated capacity.		
			COOLING ONLY	Sq. Ft.	Costs
			Central refrigeration (zoned) ....	\$5.50	
			package (short ductwork) ....	3.75	
			Central evaporative .....	2.50	
			Pkg. refrig. . \$1,180 to \$1,540 per ton capacity		
			Evap. coolers . \$160 to \$270 per MCFM capacity		
			VENTILATION ONLY		
			Vent. (blowers/ducts) .....	\$ .95	

**3**

HEIGHT REFINEMENTS			
<p><b>MULTISTORY BUILDINGS:</b> Add .5% (1/2%) for each story over three, above ground, to all base costs.</p> <p><b>STORY HEIGHT MULTIPLIERS:</b> Multiply base cost by following multipliers for any variation in average story height.</p>			
Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
8	.96	11	1.02
9	.98	12	1.04
10	1.00 (base)	14	1.09

**4**

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER														Average Floor Area Sq. Ft./Story	
	300	350	400	450	500	550	600	700	800	900	1000	1200	1500	2000		
5,000	1.07	1.11	1.15	1.19	1.23	1.27	----	----	----	----	----	----	----	----	----	5,000
10,000	----	.97	.99	1.01	1.03	1.05	1.07	1.11	1.15	----	----	----	----	----	----	10,000
15,000	----	----	.94	.95	.97	.98	.99	1.02	1.05	1.07	----	----	----	----	----	15,000
20,000	----	----	----	----	.93	.94	.95	.97	.99	1.01	1.03	1.07	----	----	----	20,000
25,000	----	----	----	----	----	.92	.93	.95	.96	.98	.99	1.03	----	----	----	25,000
30,000	----	----	----	----	----	----	.91	.93	.94	.95	.97	.99	1.03	----	----	30,000
40,000	----	----	----	----	----	----	----	.90	.91	.92	.93	.95	.98	1.03	----	40,000
50,000	----	----	----	----	----	----	----	.89	.90	.91	.91	.93	.95	.99	----	50,000
60,000	----	----	----	----	----	----	----	----	.89	.89	.90	.91	.93	.97	----	60,000
70,000	----	----	----	----	----	----	----	----	----	.89	.89	.90	.92	.95	----	70,000
80,000	----	----	----	----	----	----	----	----	----	----	.88	.89	.91	.93	----	80,000
100,000	----	----	----	----	----	----	----	----	----	----	.87	.88	.89	.91	----	100,000

**5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.**

## GARAGES – RESIDENTIAL

For attached garages, deduct the cost of the common wall. For built-in garages, deduct the cost of the common wall and the roof cost. For open carports use roof and wall costs as required, add supports from Section UIP 1. Costs do not include interior finish or electric door operators, except as specifically mentioned; add from Sections UIP 2 and UIP 5 if necessary.

CLASS	TYPE	COST PER SQUARE FOOT						WALL COST (Lin. Ft.)	ROOF COST (Sq. Ft.)	DESCRIPTION
		200 Sq. Ft.	400 Sq. Ft.	600 Sq. Ft.	800 Sq. Ft.	1,000 Sq. Ft.	1,400 Sq. Ft.			
<b>C</b>	Excellent	\$72.25	\$54.10	\$48.55	\$45.45	\$42.65	\$39.60	\$169.65	\$13.00	Face brick or cut stone walls, heavy roof, slate, tile, lightweight concrete, heavy reinforced slab, plaster interior, good windows and lighting
	Very good	61.45	45.70	41.00	38.20	36.20	33.20	145.65	10.85	Good brick, adobe stone, heavy roof structure, tile heavy shake, finished interior, good overhead & pedestrian doors, good windows/lighting
	Good	48.90	36.00	32.30	30.20	28.50	25.85	120.80	9.00	Brick, ornamental block, adobe, good roof structure and roofing, good reinforced slab, overhead door, window, pedestrian door, good lighting
	Average	36.45	26.55	23.75	22.05	20.85	18.75	90.00	6.20	8" brick or block, 2 x 4 rafters, gable roof, wood or good asphalt shingles, reinforced slab, overhead door, window, pedestrian door, lighting
	Low cost	27.55	19.70	17.70	16.30	15.45	13.80	67.05	4.25	Concrete block, low-cost brick, structural tile, asphalt shingles or composition roofing, unreinforced slab, low cost overhead or hinged doors
<b>D MASONRY VENEER</b>	Excellent	68.55	51.80	46.70	43.85	41.05	38.10	157.15	12.90	Best face brick or cut stone veneer, heavy roof, slate, tile, good reinforced slab, plaster interior, good windows and lighting
	Very good	58.85	43.85	39.55	36.95	34.90	32.15	135.80	10.75	Good brick or stone veneer, heavy roof structure, tile, heavy shake, finished interior, good overhead and pedestrian doors, good windows and lighting
	Good	46.60	34.70	31.30	29.20	27.60	25.05	113.25	8.90	Face brick veneer, good roof, shakes, tile, etc., reinforced slab, good overhead doors, good windows, pedestrian door, good lighting
	Average	35.15	25.75	23.20	21.50	20.30	18.25	85.70	6.10	Brick veneer, 2 x 4 rafters, gable roof, wood or good asphalt shingles, reinforced slab, overhead door, window, pedestrian door, lighting
	Low cost	26.70	19.10	17.25	15.90	15.00	13.45	64.90	4.20	Low-cost brick or block veneer, composition or asphalt shingle roof, unreinforced slab, low-cost overhead or hinged doors, one window or light
<b>D</b>	Excellent	57.90	45.15	41.35	39.15	36.35	34.00	117.45	12.80	Best stucco, stone or brick trim, heavy rafters or steep roof, heavy slab, finished interior, good doors, good lighting and windows
	Very good	49.75	38.45	35.05	33.10	30.90	28.65	102.00	10.65	Good sidings, stone trim, heavy roof, tile, heavy shake, finished interior, good overhead and pedestrian doors, good fenestration and lighting
	Good	39.05	30.00	27.50	25.85	24.25	22.35	84.30	8.80	Good stucco or siding, good roof, shakes, tile, etc., reinforced slab, good overhead doors, good windows, pedestrian door, good lighting
	Average	29.45	22.15	20.25	18.90	17.95	16.30	64.75	6.05	Stucco or siding, 2 x 4 rafters, gable roof, wood or good asphalt shingles, reinforced slab, overhead door, window, pedestrian door, lighting
	Low cost	22.45	16.85	15.05	14.05	13.40	12.00	49.75	4.15	Low-cost stucco or siding, light studs, composition or asphalt shingle roof, unreinforced slab, low-cost overhead or hinged door, one window or light
	Cheap	17.80	12.80	11.55	10.70	-----	-----	42.00	3.85	Cheap siding, vertical boards, hardboard, no floor, windows or lighting
<b>DPOLE</b>	Low cost	18.30	14.05	12.65	11.90	-----	-----	35.30	3.00	Single wall, enameled metal on wood pole frame, concrete slab
<b>S</b>	Average	33.80	25.55	23.50	21.90	20.95	-----	78.15	6.15	Insulated sandwich panels on pre-engineered frame, reinforced slab, pedestrian door, windows, electric light and outlet
	Low cost	20.10	15.30	13.70	13.95	-----	-----	40.00	3.25	Single wall, enameled metal on low-cost pre-engineered frame, concrete slab

**NOTE:** Residential-type garages usually found with single-family residences should be priced from Volume I.

## GARAGES – RESIDENTIAL

### MULTIPLE GARAGES OR CARPORTS

Costs per square foot include back wall, end wall and roof with necessary supports and girders. Add \$390 to \$670 per single space for doors. Average and Good costs include lockers and partitions commensurate with the quality. Concrete floors included; deduct \$ .95 to \$1.40 for asphalt. Open carport covers with concrete floors will cost \$5.95 to \$11.90 per square foot.

#### SQUARE FOOT COST TABLE

CLASS	QUALITY	4-CAR	8-CAR	12-CAR	16-CAR	20-CAR
<b>C-D</b> <b>MASONRY</b> <b>VENEER</b>	Good	\$24.80	\$22.75	\$21.75	\$21.55	\$21.40
	Average	19.10	17.45	16.75	16.50	16.35
	Low cost	14.80	13.40	12.85	12.70	12.55
<b>D</b>	Good	20.80	19.35	18.80	18.50	18.30
	Average	15.30	14.15	13.70	13.55	13.40
	Low cost	11.25	10.35	10.05	9.95	9.85

#### BASEMENT GARAGES

Lump sums to be added to the total basement costs, including garage finish.

	SINGLE	DOUBLE	3-CAR
Unfinished basements	\$1,323.00 – \$1,863.00	\$1,525.00 – \$2,646.00	\$2,457.00 – \$3,618.00
Finished basements	1,026.00 – 1,458.00	1,215.00 – 1,539.00	1,539.00 – 2,268.00

#### BUILT-IN GARAGES FOR TOWN HOUSES

Costs per square foot of garage area, including interior finish.

CLASS	QUALITY	SINGLE		DOUBLE		3-CAR	
		End Unit	Inside	End Unit	Inside	End Unit	Inside
<b>C</b>	Excellent	\$42.00	\$24.90	\$31.30	\$23.90	\$28.60	\$23.10
	Good	32.10	19.00	23.90	18.00	21.70	17.50
	Average	24.45	14.55	18.25	13.50	16.45	13.25
	Low cost	18.70	11.10	13.95	10.15	12.45	10.00
<b>D</b> <b>MASONRY</b> <b>VENEER</b>	Excellent	39.75	23.80	30.10	22.85	27.25	22.15
	Good	30.60	18.30	23.05	17.30	20.85	16.85
	Average	23.55	14.05	17.65	13.05	15.95	12.80
	Low cost	18.15	10.80	13.55	9.90	12.15	9.70
<b>D</b>	Excellent	33.65	21.40	25.80	20.50	23.40	20.00
	Good	26.10	16.50	20.00	15.60	18.05	15.30
	Average	20.25	12.80	15.50	11.95	13.95	11.65
	Low cost	15.70	9.90	12.00	9.05	10.75	8.90

**NOTE:** Residential-type garages usually found with single-family residences should be priced from Volume I.

## GARAGES – SERVICE/FLEET SERVICE FACILITIES



**GOOD CLASS D REPAIR**



**AVERAGE CLASS S REPAIR**

**OCCUPANCY DESCRIPTION:** Service garages are designed primarily for vehicular repair and maintenance. They are built in all classes of construction and include small office areas with plaster or drywall finish. There is usually good lighting and adequate plumbing using commercial plumbing fixtures. The floor is concrete, with office areas having resilient floor covering. The size or amount of office area is commensurate with the overall quality. Exterior walls generally have some large openings for overhead doors, and minimal fenestration.

Fleet service facilities include many subdivisions for offices, stores and shops to support major vehicular maintenance and repair facilities. Exterior walls will have some office fenestration and numerous openings for overhead doors.

**INCLUDED IN COSTS:** Architects' fees and contractors' overhead and profit. Sufficient heating to protect materials and personnel from freezing. Elevators are included in costs designated with an asterisk (\*).

**NOT INCLUDED IN COSTS:** Sprinklers, hoists or service equipment.

### GARAGES – SERVICE (REPAIR)

**SQUARE FOOT COST TABLE**

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>A-B</b>	Average	\$56.40	Brick, reinforced concrete, good fenestration	Some plaster and glazed surfaces, offices, masonry partitions	*Good level of lighting, adequate plumbing	Space heaters
	Excellent	76.20	Steel or concrete frame, brick, decorative block or concrete panels	Some good offices and supply rooms	Good electrical, lighting and service outlets, good restrooms	Forced air
<b>C</b>	Good	53.60	Steel, concrete or glulam frame, masonry curtain or bearing walls	Finished office, painted walls, some partitions	Adequate lighting and service outlets, adequate restrooms	Space heaters
	Average	38.85	Masonry bearing walls with pilasters, light trusses	Unfinished, small finished office area, some supply area	Adequate lighting and service outlets, small restroom	Space heaters
	Low cost	28.30	Light masonry bearing walls, light rafters	Unfinished, small partitioned office area, concrete floor	Minimum electrical and plumbing	Space heaters
<b>D</b>	Good	48.35	Wood frame, good siding, brick ven., or stucco & fenestration	Partially finished, finished office area, some partitions	Adequate lighting and service outlets, adequate restrooms	Space heaters
	Average	35.45	Light wood frame, siding or stucco	Unfinished, small finished office area, some supply area	Adequate lighting and service outlets, small restroom	Space heaters
	Low cost	26.10	Cheap frame, stucco or siding	Unfinished, small office area, concrete floor	Minimum lighting and plumbing	Space heaters
<b>DPOLE</b>	Average	30.45	Pole frame, metal siding, lined and insulated	Small finished office area, some supply area	Adequate lighting and service outlets, small restroom	Space heaters
	Low cost	22.30	Pole frame and truss, metal siding	Small partitioned office area, concrete floor, utility type	Minimum lighting and plumbing	Space heaters
<b>S</b>	Good	44.30	Sandwich panels or metal with interior finish	Partially finished, finished office area, some partitions	Adequate lighting and service outlets, adequate restrooms	Space heaters
	Average	32.05	Single wall with some interior finish	Unfinished, small finished office area, some supply area	Adequate lighting and service outlets, small restroom	Space heaters
	Low cost	23.35	Light, pre-engineered, utility-type building	Unfinished, small office area, concrete floor	Minimum lighting and plumbing	Space heaters

### FLEET SERVICE FACILITIES

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>C</b>	Excellent	\$117.55	Good masonry or concrete, some ornamentation, heavy frame	Plaster, acoustic tile, finished floors, good offices, shops, supply rooms	Many power outlets, good lighting and plumbing	Package A.C.
	Good	84.25	Steel or concrete frame, brick, or concrete panels	Some good offices and interior finish, supply rooms and shops	Good electrical, lighting and service outlets, good restrooms	Package A.C.
	Average	57.60	Steel, concrete or glulam frame, masonry curtain or bearing walls	Finished office, painted walls, some partitions, supply areas and shops	Adequate lighting and service outlets, adequate restrooms	Forced air
<b>S</b>	Excellent	100.10	Good sandwich panels, some ornamentation, heavy frame	Finished walls & floor, acoustic tile, good offices, shops, supply rooms	Many power outlets, good lighting and plumbing	Package A.C.
	Good	72.45	Good steel frame, siding and fenestration	Some good offices and interior finish, supply rooms and shops	Good electrical, lighting and service outlets, good restrooms	Package A.C.
	Average	49.65	Sandwich panels or metal with interior finish	Partially finished, finished office area, some partitions, supply and shop areas	Adequate lighting and service outlets, adequate restrooms	Forced air

## GARAGES – SERVICE/FLEET SERVICE FACILITIES

**REFINEMENTS:** On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

<b>1</b>	<p><b>ELEVATORS:</b> Buildings whose base costs include service elevators are marked with an asterisk (*). If the building under consideration has no elevators, deduct the following from the base costs so marked. For detailed costs, see Section UIP 8.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><b>Classes A/B</b></td> <td style="width: 10%; text-align: center;"><b>Sq. Ft.</b></td> <td style="width: 10%;"></td> <td style="width: 10%; text-align: center;"><b>Costs</b></td> </tr> <tr> <td>Average .....</td> <td style="text-align: center;">\$1.35</td> <td></td> <td></td> </tr> </table> <p><b>HOISTS:</b> Automobile hoists cost \$6,000 to \$9,275 each. Truck hoists, \$8,250 to \$15,500. See Section UIP 14 for greater detail.</p>	<b>Classes A/B</b>	<b>Sq. Ft.</b>		<b>Costs</b>	Average .....	\$1.35			<p><b>SPRINKLERS:</b> Apply to sprinklered area.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;"><b>Sq. Ft.</b></td> <td style="width: 10%; text-align: center;"><b>LOW</b></td> <td style="width: 10%; text-align: center;"><b>AVG.</b></td> <td style="width: 10%; text-align: center;"><b>GOOD</b></td> <td style="width: 10%; text-align: center;"><b>EXCL.</b></td> </tr> <tr> <td>1,000</td> <td style="text-align: center;">\$2.60</td> <td style="text-align: center;">\$3.40</td> <td style="text-align: center;">\$4.65</td> <td style="text-align: center;">\$6.15</td> </tr> <tr> <td>2,000</td> <td style="text-align: center;">2.40</td> <td style="text-align: center;">3.10</td> <td style="text-align: center;">4.15</td> <td style="text-align: center;">5.40</td> </tr> <tr> <td>5,000</td> <td style="text-align: center;">2.05</td> <td style="text-align: center;">2.65</td> <td style="text-align: center;">3.50</td> <td style="text-align: center;">4.55</td> </tr> <tr> <td>10,000</td> <td style="text-align: center;">1.85</td> <td style="text-align: center;">2.35</td> <td style="text-align: center;">3.10</td> <td style="text-align: center;">4.00</td> </tr> <tr> <td>15,000</td> <td style="text-align: center;">1.75</td> <td style="text-align: center;">2.25</td> <td style="text-align: center;">2.85</td> <td style="text-align: center;">3.70</td> </tr> <tr> <td>20,000</td> <td style="text-align: center;">1.65</td> <td style="text-align: center;">2.15</td> <td style="text-align: center;">2.75</td> <td style="text-align: center;">3.50</td> </tr> <tr> <td>30,000</td> <td style="text-align: center;">1.55</td> <td style="text-align: center;">2.00</td> <td style="text-align: center;">2.55</td> <td style="text-align: center;">3.25</td> </tr> <tr> <td>50,000</td> <td style="text-align: center;">1.45</td> <td style="text-align: center;">1.85</td> <td style="text-align: center;">2.35</td> <td style="text-align: center;">2.95</td> </tr> </table>	<b>Sq. Ft.</b>	<b>LOW</b>	<b>AVG.</b>	<b>GOOD</b>	<b>EXCL.</b>	1,000	\$2.60	\$3.40	\$4.65	\$6.15	2,000	2.40	3.10	4.15	5.40	5,000	2.05	2.65	3.50	4.55	10,000	1.85	2.35	3.10	4.00	15,000	1.75	2.25	2.85	3.70	20,000	1.65	2.15	2.75	3.50	30,000	1.55	2.00	2.55	3.25	50,000	1.45	1.85	2.35	2.95
<b>Classes A/B</b>	<b>Sq. Ft.</b>		<b>Costs</b>																																																				
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30,000	1.55	2.00	2.55	3.25																																																			
50,000	1.45	1.85	2.35	2.95																																																			

<b>2</b>	<b>HEATING AND COOLING</b>						
<p>These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.</p>							
		<b>Sq. Ft.</b>			<b>Sq. Ft.</b>		
<b>HEATING ONLY</b>		<b>Costs</b>	<b>HEATING &amp; COOLING</b>		<b>Costs</b>	<b>COOLING ONLY</b>	
Electric cable or baseboard ..	\$3.15	Package A.C. (short ductwork) . . . .	\$ 6.85	Central refrigeration (zoned) . . . .	\$5.95		
Electric wall heaters . . . . .	1.35	Warm and cool air (zoned) . . . . .	9.05	package (short ductwork) . . . .	4.05		
Forced air furnace . . . . .	3.45	Hot/chilled water (zoned) . . . . .	15.10	Central evaporative . . . . .	2.70		
Hot water . . . . .	6.15	Heat pump system . . . . .	8.05	Pkg. refrig. . \$1,180 to \$1,540 per ton capacity			
Space heaters, with fan . . . . .	1.60			Evap. coolers . \$160 to \$270 per MCFM capacity			
radiant . . . . .	1.90						
Steam (including boiler) . . . . .	5.50	Small indiv. heat pumps cost \$1,125 to \$1,510			<b>VENTILATION ONLY</b>		
without boiler . . . . .	4.65	per ton of rated capacity.			Vent. (blowers/ducts) . . . . .		\$1.05

<b>3</b>	<b>HEIGHT REFINEMENTS</b>			
<p><b>MULTISTORY BUILDINGS:</b> Add .5% (1/2%) for each story over three, above ground, to all base costs. <b>STORY HEIGHT MULTIPLIERS:</b> Multiply base cost by following multipliers for any variation in average story height.</p>				
	<b>Average Wall Height</b>	<b>Square Foot Multiplier</b>	<b>Average Wall Height</b>	<b>Square Foot Multiplier</b>
	10	.92	18	1.09
	12	.96	20	1.13
	14	1.00 (base)	22	1.18
	16	1.04	24	1.23

<b>4</b>	<b>Average Floor Area Sq. Ft./Story</b>	<b>AVERAGE PERIMETER</b>														<b>Average Floor Area Sq. Ft./Story</b>
		<b>100</b>	<b>150</b>	<b>200</b>	<b>250</b>	<b>300</b>	<b>400</b>	<b>500</b>	<b>600</b>	<b>700</b>	<b>800</b>	<b>900</b>	<b>1000</b>	<b>1200</b>	<b>1500</b>	
	<b>1,000</b>	1.23	1.43	1.63	1.83	----	----	----	----	----	----	----	----	----	----	<b>1,000</b>
	<b>2,000</b>	----	1.13	1.23	1.33	1.43	1.63	----	----	----	----	----	----	----	----	<b>2,000</b>
	<b>4,000</b>	----	----	1.03	1.08	1.13	1.23	1.33	----	----	----	----	----	----	----	<b>4,000</b>
	<b>5,000</b>	----	----	----	1.03	1.07	1.15	1.23	1.31	----	----	----	----	----	----	<b>5,000</b>
	<b>8,000</b>	----	----	----	----	.98	1.03	1.08	1.13	1.18	----	----	----	----	----	<b>8,000</b>
	<b>10,000</b>	----	----	----	----	.95	.99	1.03	1.07	1.11	1.15	----	----	----	----	<b>10,000</b>
	<b>15,000</b>	----	----	----	----	----	.94	.97	.99	1.02	1.05	1.07	----	----	----	<b>15,000</b>
	<b>20,000</b>	----	----	----	----	----	----	.93	.95	.97	.99	1.01	1.03	1.07	----	<b>20,000</b>
	<b>25,000</b>	----	----	----	----	----	----	.91	.93	.95	.96	.98	.99	1.03	----	<b>25,000</b>
	<b>30,000</b>	----	----	----	----	----	----	----	.91	.93	.94	.95	.97	.99	1.03	<b>30,000</b>
	<b>40,000</b>	----	----	----	----	----	----	----	.90	.91	.92	.93	.95	.98	----	<b>40,000</b>
	<b>50,000</b>	----	----	----	----	----	----	----	.88	.89	.90	.91	.93	.95	----	<b>50,000</b>

**5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.**



## GARAGES – SERVICE STATIONS



**EXCELLENT CLASS S/C SERVICE STATION**



**GOOD CLASS S FOOD BOOTH**

**OCCUPANCY DESCRIPTION:** Service stations are complete stations, including areas for office storage, sales, restrooms, and lube areas for service bay stations.

**INCLUDED IN COSTS:** Architects' fees and contractors' overhead and profit. Base electric and interior circuits. Sufficient heating to protect materials and personnel from freezing.

**NOT INCLUDED IN COSTS:** Sprinklers, hoists, compressors, exterior electrical circuits, carwashes, food service or display fixtures, exterior equipment and improvements.

### STATIONS WITH SERVICE BAYS

**SQUARE FOOT COST TABLE**

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>S-C</b>	Excellent	\$132.35	Best steel or brick, masonry trim, good fenestration, garage doors	Good finish, best workmanship, many built-in features, tire racks, etc.	Six to eight good commercial plumbing fixtures, good electrical	Package A.C.
	Good	105.45	Good steel or brick, sectional doors, good sash, large overhangs	Ranch or suburban style, tiled restrooms, good office	Average commercial fixtures, adequate interior circuits	Space heaters
	Average	87.40	Average painted steel or block, little trim, small overhangs	Present-day station, small office, storage, restrooms	Five to six low-cost commercial plumbing fixtures, standard electrical	Space heaters
	Low cost	72.55	Painted steel, inexpensive sash and doors or gates	Older station, minimum finishes, few built-in items	Four residential-type fixtures, minimum interior electrical	Space heaters
<b>D</b>	Good	89.35	Good sidings, sectional doors, good sash, large overhangs	Ranch or suburban style, tiled restroom, good office	Average commercial fixtures, adequate interior circuits	Space heaters
	Average	74.85	Siding or metal on wood frame, little trim, small overhangs	Present-day station, small office, storage, restrooms	Five to six low-cost commercial plumbing fixtures, std. electrical	Space heaters
	Low cost	62.80	Siding or stucco, inexpensive sash and doors or gates	Older station, minimum finishes, few built-in items	Two to three low-cost fixtures, minimum interior circuits	Space heaters
	Cheap	50.85	Low-cost siding or stucco, cheap sash and gates	Substandard, older station, minimal finishes	Two cheap plumbing fixtures, minimum incandescent lighting	None

### PREFABRICATED FOOD BOOTHS

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>S</b>	Good	\$164.65	Good enameled prefinished steel, good front, masonry trim	Good acoustic, ceramic tile, security partitioning, walk-in box	Good lighting and outlets, restroom, standard fixtures	Package A.C.
	Average	144.35	Sandwich panels, small front, some trim or mansard	Typical food booth, some extras, adequate support, cooler areas	Adequate electrical, approx. one plumbing fixture each 175 sq. ft.	Package A.C.
	Low cost	126.65	Painted steel panels, low cost sash and fascia	Acoustic tile, vinyl composition, limited partitions, built-in cooler	Minimum display wiring and plumbing	Package A.C.

## GARAGES – SERVICE STATIONS

**REFINEMENTS:** On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

**1**

<p><b>HOISTS:</b> Automobile hoists cost \$6,000 to \$9,275 each. Truck hoists, \$8,250 to \$15,500. See Section UIP 14 for greater detail.</p> <p>For cashier booths, gasoline pumps, see Section UIP 14.</p> <p><b>CANOPIES:</b> Costs per square foot of covered area including light fixtures and supports. Add 10% for gable or ranch style, 25% for round. Individually designed or highly ornamented canopies can cost 100% more.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: right;">LOW</th> <th style="text-align: right;">AVG.</th> <th style="text-align: right;">GOOD</th> <th style="text-align: right;">EXCL.</th> </tr> </thead> <tbody> <tr> <td>Concrete tees .....</td> <td style="text-align: right;">\$17.15</td> <td style="text-align: right;">\$19.90</td> <td style="text-align: right;">\$23.15</td> <td style="text-align: right;">\$27.00</td> </tr> <tr> <td>Steel .....</td> <td style="text-align: right;">14.70</td> <td style="text-align: right;">18.80</td> <td style="text-align: right;">23.70</td> <td style="text-align: right;">30.25</td> </tr> <tr> <td>Wood frame .....</td> <td style="text-align: right;">13.10</td> <td style="text-align: right;">16.35</td> <td style="text-align: right;">20.15</td> <td style="text-align: right;">25.05</td> </tr> </tbody> </table>		LOW	AVG.	GOOD	EXCL.	Concrete tees .....	\$17.15	\$19.90	\$23.15	\$27.00	Steel .....	14.70	18.80	23.70	30.25	Wood frame .....	13.10	16.35	20.15	25.05	<p><b>SPRINKLERS:</b> Apply to sprinklered area.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Sq. Ft.</th> <th style="text-align: right;">LOW</th> <th style="text-align: right;">AVG.</th> <th style="text-align: right;">GOOD</th> <th style="text-align: right;">EXCL.</th> </tr> </thead> <tbody> <tr> <td>1,000</td> <td style="text-align: right;">\$2.60</td> <td style="text-align: right;">\$3.40</td> <td style="text-align: right;">\$4.65</td> <td style="text-align: right;">\$6.15</td> </tr> <tr> <td>2,000</td> <td style="text-align: right;">2.40</td> <td style="text-align: right;">3.10</td> <td style="text-align: right;">4.15</td> <td style="text-align: right;">5.40</td> </tr> <tr> <td>5,000</td> <td style="text-align: right;">2.05</td> <td style="text-align: right;">2.65</td> <td style="text-align: right;">3.50</td> <td style="text-align: right;">4.55</td> </tr> <tr> <td>10,000</td> <td style="text-align: right;">1.85</td> <td style="text-align: right;">2.35</td> <td style="text-align: right;">3.10</td> <td style="text-align: right;">4.00</td> </tr> </tbody> </table>	Sq. Ft.	LOW	AVG.	GOOD	EXCL.	1,000	\$2.60	\$3.40	\$4.65	\$6.15	2,000	2.40	3.10	4.15	5.40	5,000	2.05	2.65	3.50	4.55	10,000	1.85	2.35	3.10	4.00
	LOW	AVG.	GOOD	EXCL.																																										
Concrete tees .....	\$17.15	\$19.90	\$23.15	\$27.00																																										
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**2**

<b>HEATING AND COOLING</b>					
<p>These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.</p>					
	<b>Sq. Ft.</b>		<b>Sq. Ft.</b>		<b>Sq. Ft.</b>
<b>HEATING ONLY</b>	<b>Costs</b>	<b>HEATING &amp; COOLING</b>	<b>Costs</b>	<b>COOLING ONLY</b>	<b>Costs</b>
Electric cable or baseboard ..	\$3.15	Package A.C. (short ductwork) ....	\$ 6.85	Central refrigeration (zoned) ....	\$5.95
Electric wall heaters .....	1.35	Warm and cool air (zoned) .....	9.05	package (short ductwork) .....	4.05
Forced air furnace .....	3.45	Hot/chilled water (zoned) .....	15.10	Central evaporative .....	2.70
Hot water .....	6.15	Heat pump system .....	8.05	Pkg. refrig. . \$1,180 to \$1,540 per ton capacity	
Space heaters, with fan .....	1.60			Evap. coolers. \$160 to \$270 per MCFM capacity	
radiant .....	1.90				
Steam (including boiler) .....	5.50	Small indiv. heat pumps cost \$1,125 to \$1,510		<b>VENTILATION ONLY</b>	
without boiler .....	4.65	per ton of rated capacity.		Vent. (blowers/ducts) .....	\$1.05

**3**

<b>HEIGHT REFINEMENTS</b>			
<b>STORY HEIGHT MULTIPLIERS:</b> Multiply base cost by following multipliers for any variation in average story height.			
<b>Average Wall Height</b>	<b>Square Foot Multiplier</b>	<b>Average Wall Height</b>	<b>Square Foot Multiplier</b>
8	.88	16	1.04
10	.92	18	1.09
12	.96	20	1.13
14	1.00 (base)	22	1.18

**4**

<b>FLOOR AREA MULTIPLIERS</b>						
<b>FLOOR AREA PER UNIT</b>		<b>MULTIPLIER</b>	<b>FLOOR AREA PER UNIT</b>		<b>MULTIPLIER</b>	
<b>Sq. Ft.</b>	<b>Food Booths</b>	<b>Service Bay Stations</b>	<b>Sq. Ft.</b>	<b>Food Booths</b>	<b>Service Bay Stations</b>	
400	1.118	----	2,200	.909	.859	
600	1.064	1.330	2,400	.900	.834	
800	1.027	1.207	2,600	.891	.812	
1,000	1.000	1.120	2,800	.883	.792	
1,200	.978	1.053	3,200	.869	.757	
1,400	.960	1.000	3,600	.856	.728	
1,600	.945	.956	4,000	.846	.702	
1,800	.932	.919	4,400	.836	.680	
2,000	.920	.887	4,800	.827	.660	

**5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.**

## GARAGES – STORAGE AND EMERGENCY RESPONSE



**AVERAGE C<sub>MILL</sub> STORAGE**



**AVERAGE S EMERGENCY RESPONSE**

**OCCUPANCY DESCRIPTION:** Storage garages are designed for live- and dead-load storage of automobiles. Built in all classes of construction, they have some unfinished partitioned office areas using masonry or wood frame walls, with minimum lighting and plumbing.

Emergency Response Garages typically include vehicle storage, small offices, a classroom and minimal plumbing. They have only

partially finished floors and ceilings. Better than average stations may have kitchenettes, drywall and acoustical tile.

**INCLUDED IN COSTS:** Architects' fees and contractors' overhead and profit. Elevators are included in costs designated with an asterisk (\*).

**NOT INCLUDED IN COSTS:** Sprinklers or hoists; kitchen, first aid or teaching equipment.

**SQUARE FOOT COST TABLE**

### STORAGE GARAGES

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>A-B</b>	Average	\$46.60	Brick, reinforced concrete, little ornamentation	Plaster or drywall, masonry partitions, small office & service area	*Low lighting levels, minimum plumbing	Space heaters
<b>A-B</b>	Parking basement	37.80	Unfinished concrete, water-proofed walls	Unfinished, concrete floor, striped	Minimum lighting, drains	Ventilation
<b>C</b>	Average	35.65	Brick, block, tilt-up, plain facade	Unfinished, small partitioned office area, concrete floors	Low-level lighting, minimum plumbing	Space heaters
<b>C<sub>MILL</sub></b>	Average	42.20	Mill-type frame, brick, plain facade	Painted walls, mill-type floors, masonry partitions	*Minimum electrical and plumbing	Space heaters
<b>D</b>	Average	33.10	Wood frame, stucco or siding, plain facade	Unfinished, small partitioned office area, concrete floors	Minimum electrical and plumbing	Space heaters
<b>S</b>	Average	30.00	Single-wall construction, enameled steel or aluminum	Unfinished, small partitioned office area, concrete floors	Low-level lighting, minimum plumbing	Space heaters
<b>CDS</b>	Avg. parking bsmt.	25.25	Unfinished concrete, water-proofed walls	Plaster or drywall ceiling, concrete floor, striped	Minimum lighting, adequate drains	Ventilation
	Low parking bsmt.	21.80	Partially exposed, some ornamentation, unfinished interior	Finished ceiling, concrete slab, striping	Minimum lighting, adequate drains	None

**NOTE:** For parking structures, see Page CAL 58.

### EMERGENCY RESPONSE GARAGES

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>A-B</b>	Average	\$70.45	Brick, ornamented block, concrete, some ornamentation	Office, classroom, kitchenette, drywall and acoustic tile	Good lighting, adequate plumbing and restrooms	Package A.C.
	Low cost	56.05	Brick, block, tilt-up, some trim	Painted walls, few small offices, some finished floor and ceiling	Adequate electrical, minimum plumbing	Forced air
<b>C</b>	Good	64.20	Brick, ornamented block, concrete, some trim	Office, classroom, kitchenette, drywall and acoustic tile	Good lighting, adequate plumbing and restrooms	Forced air
	Average	45.65	Brick, block, tilt-up, wall bearing or frame	Painted walls, few small offices, some finished floor and ceiling	Adequate electrical, minimum plumbing	Space heaters
	Low cost	34.65	Block, cheap brick, tilt-up, light shell structure	Some partitions, little finish, minimum garage type	Minimum electrical and water	Space heaters
<b>D</b>	Good	59.65	Brick veneer, good stucco or siding with brick trim	Office, classroom, kitchenette, drywall and acoustic tile	Good lighting, adequate plumbing and restrooms	Forced air
	Average	42.00	Studs or light frame, siding or stucco, some trim or veneer	Few small offices, some finished floor and ceiling	Adequate electrical, minimum plumbing	Space heaters
	Low cost	31.70	Cheap frame, stucco or siding, very plain	Minimum apparatus facility, few partitions, little finish	Minimum electrical and water	Space heaters
<b>D<sub>POLE</sub></b>	Average	37.35	Pole frame and truss, metal siding, lined, insulated	Small finished offices, some drywall, vinyl composition	Adequate electrical, minimum plumbing	Space heaters
	Low cost	27.60	Pole frame, metal, primarily exp.	Some partitions, finish, garage type	Minimum electrical and water	Space heaters
<b>S</b>	Good	55.45	Sandwich panels, or finished interior, some trim	Office, classroom, kitchenette, drywall and acoustic tile	Good lighting, adequate outlets, plumbing, restrooms	Forced air
	Average	38.35	Single wall, some interior finish and insulation	Small finished offices, some drywall, vinyl composition	Adequate electrical, minimum plumbing	Space heaters
	Low cost	28.65	Metal on light frame, primarily exposed	Some partitions, little finish, minimum apparatus facility	Minimum electrical and water	Space heaters
<b>CDS</b>	Office mezzanine	33.35	In building cost	Enclosed, average office finish, acoustic tile soffit	Average office lighting and plumbing	Included in building cost
	Storage mezzanine	11.05	In building cost	Light storage on plywood, minimum supports, no soffit	Minimum lighting	Included in building cost

**MEZZANINES:** Do not use story height or area/perimeter multipliers with industrial type mezzanine costs shown above. For fully finish office type mezzanines, see Page CAL 142.

# GARAGES – STORAGE AND EMERGENCY RESPONSE

**REFINEMENTS:** On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

<b>1</b>	<p><b>ELEVATORS:</b> Buildings whose base costs include service elevators are marked with an asterisk (*). If the building under consideration has no elevators, deduct the following from the base costs so marked. For detailed costs, see Section UIP 8.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;"><b>Classes A/B/C<sub>MILL</sub></b></td> <td style="text-align: right;"><b>Sq. Ft.</b></td> <td style="text-align: right;"><b>Costs</b></td> </tr> <tr> <td>Average .....</td> <td>\$1.35</td> <td></td> </tr> </table> <p><b>ELEVATOR STOPS:</b> For basement or mezzanine elevator stops, add \$4,275 to \$6,475 per stop. A small passenger elevator with simple call system and push-button control, four-passenger cab, and two or three stops, costs \$35,250 to \$55,500.</p>	<b>Classes A/B/C<sub>MILL</sub></b>	<b>Sq. Ft.</b>	<b>Costs</b>	Average .....	\$1.35		<p><b>SPRINKLERS:</b> Apply to sprinklered area.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;"><b>Sq. Ft.</b></td> <td style="text-align: right;"><b>LOW</b></td> <td style="text-align: right;"><b>AVG.</b></td> <td style="text-align: right;"><b>GOOD</b></td> <td style="text-align: right;"><b>EXCL.</b></td> </tr> <tr> <td>1,000</td> <td>\$2.60</td> <td>\$3.40</td> <td>\$4.65</td> <td>\$6.15</td> </tr> <tr> <td>2,000</td> <td>2.40</td> <td>3.10</td> <td>4.15</td> <td>5.40</td> </tr> <tr> <td>5,000</td> <td>2.05</td> <td>2.65</td> <td>3.50</td> <td>4.55</td> </tr> <tr> <td>10,000</td> <td>1.85</td> <td>2.35</td> <td>3.10</td> <td>4.00</td> </tr> <tr> <td>15,000</td> <td>1.75</td> <td>2.25</td> <td>2.85</td> <td>3.70</td> </tr> <tr> <td>20,000</td> <td>1.65</td> <td>2.15</td> <td>2.75</td> <td>3.50</td> </tr> <tr> <td>30,000</td> <td>1.55</td> <td>2.00</td> <td>2.55</td> <td>3.25</td> </tr> <tr> <td>50,000</td> <td>1.45</td> <td>1.85</td> <td>2.35</td> <td>2.95</td> </tr> </table>	<b>Sq. Ft.</b>	<b>LOW</b>	<b>AVG.</b>	<b>GOOD</b>	<b>EXCL.</b>	1,000	\$2.60	\$3.40	\$4.65	\$6.15	2,000	2.40	3.10	4.15	5.40	5,000	2.05	2.65	3.50	4.55	10,000	1.85	2.35	3.10	4.00	15,000	1.75	2.25	2.85	3.70	20,000	1.65	2.15	2.75	3.50	30,000	1.55	2.00	2.55	3.25	50,000	1.45	1.85	2.35	2.95
<b>Classes A/B/C<sub>MILL</sub></b>	<b>Sq. Ft.</b>	<b>Costs</b>																																																			
Average .....	\$1.35																																																				
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15,000	1.75	2.25	2.85	3.70																																																	
20,000	1.65	2.15	2.75	3.50																																																	
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<b>2</b>	<b>HEATING AND COOLING</b>						
<p>These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.</p>							
<b>HEATING ONLY</b>		<b>Sq. Ft.</b>	<b>HEATING &amp; COOLING</b>		<b>Sq. Ft.</b>	<b>COOLING ONLY</b>	
		<b>Costs</b>			<b>Costs</b>		
Electric cable or baseboard ..	\$2.90	Package A.C. (short ductwork) . . . .	\$ 6.30	Central refrigeration (zoned) . . . .	\$5.50		
Electric wall heaters . . . . .	1.25	Warm and cool air (zoned) . . . . .	8.35	package (short ductwork) . . . .	3.75		
Forced air furnace . . . . .	3.20	Hot/chilled water (zoned) . . . . .	13.90	Central evaporative . . . . .	2.50		
Hot water . . . . .	5.65	Heat pump system . . . . .	7.40	Pkg. refriger. . \$1,180 to \$1,540 per ton capacity			
Space heaters, with fan . . . . .	1.45			Evap. coolers . \$160 to \$270 per MCFM capacity			
radiant . . . . .	1.75						
Steam (including boiler) . . . . .	5.05	Small indiv. heat pumps cost \$1,125 to \$1,510			<b>VENTILATION ONLY</b>		
without boiler . . . . .	4.30	per ton of rated capacity.			Vent. (blowers/ducts) . . . . .	\$ .95	

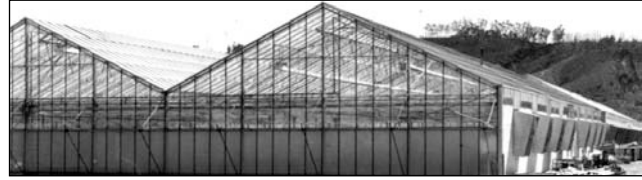
<b>3</b>	<b>HEIGHT REFINEMENTS</b>			
<p><b>MULTISTORY BUILDINGS:</b> Add .5% (1/2%) for each story over three, above ground, to all base costs.  <b>STORY HEIGHT MULTIPLIERS:</b> Multiply base cost by following multipliers for any variation in average story height.</p>				
<b>Average Wall Height</b>		<b>Square Foot Multiplier</b>	<b>Average Wall Height</b>	
8		.97	14	
10		1.00 (base)	16	
12		1.04	18	

<b>4</b>	<b>AVERAGE PERIMETER</b>															
<b>Average Floor Area</b>															<b>Average Floor Area</b>	
<b>Sq. Ft./Story</b>															<b>Sq. Ft./Story</b>	
<b>1,000</b>	1.24	1.45	1.66	1.87	----	----	----	----	----	----	----	----	----	----	<b>1,000</b>	
<b>2,000</b>	----	1.14	1.24	1.35	1.45	1.66	----	----	----	----	----	----	----	----	<b>2,000</b>	
<b>4,000</b>	----	----	1.03	1.09	1.14	1.24	1.35	----	----	----	----	----	----	----	<b>4,000</b>	
<b>5,000</b>	----	----	----	1.03	1.08	1.16	1.24	1.33	----	----	----	----	----	----	<b>5,000</b>	
<b>8,000</b>	----	----	----	----	.98	1.03	1.09	1.14	1.19	----	----	----	----	----	<b>8,000</b>	
<b>10,000</b>	----	----	----	----	.95	.99	1.03	1.08	1.12	1.16	----	----	----	----	<b>10,000</b>	
<b>15,000</b>	----	----	----	----	----	.94	.97	.99	1.02	1.05	1.08	----	----	----	<b>15,000</b>	
<b>20,000</b>	----	----	----	----	----	----	.93	.95	.97	.99	1.01	1.03	1.08	----	<b>20,000</b>	
<b>25,000</b>	----	----	----	----	----	----	.91	.93	.94	.96	.98	.99	1.03	----	<b>25,000</b>	
<b>30,000</b>	----	----	----	----	----	----	----	.91	.92	.94	.95	.97	.99	1.03	<b>30,000</b>	
<b>40,000</b>	----	----	----	----	----	----	----	----	.90	.91	.92	.93	.95	.98	<b>40,000</b>	
<b>50,000</b>	----	----	----	----	----	----	----	----	.88	.89	.90	.91	.93	.95	<b>50,000</b>	

**5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.**

## GREENHOUSES

**OCCUPANCY DESCRIPTION:** Enclosures used to regulate the climatic conditions for germinating and growing various plants and vegetables.



**INCLUDED IN COSTS:** Architects' fees and contractors' overhead and profit.

**GOOD CLASS S**

**NOT INCLUDED IN COSTS:** Heating or automated watering systems, shade curtains and planting benches are not included.

### SQUARE FOOT COST TABLE      STRAIGHT-WALL STRUCTURES

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>D</b>	Average	\$ 7.25	Wood frame, glass or fiberglass covering, some vents	Gravel, some concrete	Adequate electrical and hose bibs	None
	Fair	4.75	Wood frame, fiberglass walls, double polyethylene roof cover	Gravel floor	Minimum electrical, lighting and water	None
	Low cost	3.10	Post frame, fiberglass end walls, double polyethylene cover	Dirt floor	Minimum equipment outlet and hose bibs	None
	Cheap	2.75	Light post frame, wide spacing, polyethylene cover	Dirt floor	No electrical, hose bib only	None
<b>S</b>	Excellent	21.75	Best frame, translucent sandwich panels and venting	Concrete floor, drains	Good lighting and plumbing	None
	Very good	17.95	Heavy frame, good sandwich panels, good wall and roof vents	Good concrete walks	Adequate electrical, good fixtures and water service	None
	Good	14.80	Good metal frame, tempered glass, polycarbonate or acrylic, good vents	Concrete walks	Adequate electrical and water service	None
	Average	6.85	Metal frame, glass or fiberglass covering, some vents	Gravel, some concrete	Adequate electrical and hose bibs	None
	Fair	4.70	Metal frame, double polythylene arch roof, fiberglass walls	Gravel floor	Minimum electrical, lighting and water	None
	Low cost	3.20	Metal frame, fiberglass end walls, double polyethylene cover	Dirt floor	Minimum equipment outlet and hose bib	None
	Cheap	2.85	Light tubular frame, gable or arch roof, polyethylene cover	Dirt floor	No electrical, hose bib only	None

### HOOP (ARCH-RIB/QUONSET) STRUCTURES

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>D</b>	Low cost	\$ 2.90	Light built-up wood arch, fiberglass ends, double polyethylene cover	Dirt floor	Minimum equipment outlet and hose bibs	None
<b>S</b>	Very good	12.55	Good translucent sandwich panels, heavy frame, pitched peak, vents	Good concrete walks	Adequate electrical, good fixtures and water service	None
	Good	10.40	Good polycarbonate or acrylic cover, roof and wall vents	Concrete walks	Adequate electrical and water service	None
	Average	4.90	Fiberglass panels on light arch frame, some vents	Gravel, some concrete	Adequate electrical and hose bibs	None
	Fair	3.35	Pipe or light tubular arch, double poly., fiberglass ends and knee walls	Gravel floor	Minimum electrical, lighting and water	None
	Low cost	2.30	Trussed pipe arch, double polyethylene cover, fiberglass end walls	Dirt floor	Minimum equipment outlet and hose bibs	None
	Cheap	2.05	Light pipe arch, wide spacing, polyethylene cover	Dirt floor	No electrical, hose bib only	None

For modified hoop structures (3' straight side wall), add 5%.

### SHADE HOUSES

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>D</b>	Average	\$3.65	Wood skeleton frame, spaced wood lath	Gravel, some concrete walks	Equipment outlets and hose bibs	None
	Low cost	1.65	Light wood posts and girders, shade netting cover	Some gravel	No electrical, hose bibs only	None
	Cheap	1.25	No walls, wood posts and cable, flat shade netting roof	Dirt floor	Hose bibs only	None
<b>S</b>	Average	6.00	Metal skeleton frame, spaced aluminum lath	Gravel, some concrete walks	Equipment outlets and hose bibs	None
	Low cost	1.75	Light pipe columns and girders, shade netting cover	Some gravel	No electrical, hose bibs only	None
	Cheap	1.30	No walls, steel pipe and cable, flat shade netting roof	Dirt floor	Hose bibs only	None

# GREENHOUSES

**REFINEMENTS:** On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

1	ADJUSTMENTS	COST RANGE
	Humidifiers, each .....	\$ 435.00 – \$1,775.00
	Exhaust fan cooling assembly, per unit .....	800.00 – 1,650.00
	Water-drip humidity pad assembly, per square foot of pad .....	10.50 – 18.00
	Automatic vent and/or environmental controls, per unit .....	780.00 – 1,600.00
	Automatic chemical injectors (excluding tanks), per unit .....	2,250.00 – 3,650.00
	Automatic water controls, per unit .....	260.00 – 600.00
	Traveling boom sprayer, per linear foot of rail .....	50.00 – 81.75
	Roof shade curtains, per square foot of cover, manual (automated, add 100%) .....	.53 – .69
	Hinged vents, manual, per linear foot (automatic, add 20%) .....	23.25 – 29.50
	Automatic sidewall curtain assembly, per linear foot .....	9.50 – 13.50
	Concrete curb, per linear foot .....	2.05 – 4.40
	Stem, knee walls, per linear foot .....	8.70 – 11.75
<b>MISCELLANEOUS SQUARE FOOT COSTS</b>		
Electrical: Low cost, \$.16; Average, \$.49; Good, \$1.00; Excellent, \$1.75		
Floors or walks: Dirt, \$.16 – \$.25; Gravel, \$.36 – \$.50; Asphalt, \$1.37 – \$2.18; Concrete, \$1.99 – \$2.89		
Water system, plastic: Spray, \$.11 – \$.21; Mist, \$.19 – \$.35; Drip tube, \$.25 – \$.40		
Planting benches, per square foot of bench: Plastic, \$2.70 – \$4.20; Wood slat, \$4.20 – \$4.80; Solid propagating, \$4.50 – \$8.10		

2	HEATING AND COOLING			
	These costs are averages of total installed costs of the entire heating or cooling installation, including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Unit-in-Place costs.			
		<b>Sq. Ft.</b>		<b>Sq. Ft.</b>
	<b>HEATING &amp; COOLING</b>	<b>Costs</b>	<b>VENTILATION ONLY</b>	<b>Costs</b>
	Hot water or steam .....	\$3.30	Vent. (fans only) .....	\$.40
	Gas furnaces .....	1.40		
	Suspended gas heaters .....	1.05		
	add for fan-jet duct distribution .....	.68		

3	HEIGHT REFINEMENTS			
	<b>STORY HEIGHT MULTIPLIERS:</b> Multiply base cost by following multipliers for any variation in average story height.			
	<b>Average Wall Height</b>	<b>Square Foot Multiplier</b>	<b>Average Wall Height</b>	<b>Square Foot Multiplier</b>
	7	.97	12	1.02
	8	.98	13	1.03
	9	.99	14	1.04
	10	1.00 (base)	16	1.06
	11	1.01	18	1.07

4	Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER												Average Floor Area Sq. Ft./Story
		90	200	300	500	600	800	1000	1200	1400	1600	1800	2000	
	500	1.71	1.84	----	----	----	----	----	----	----	----	----	----	500
	1,000	1.65	1.72	1.78	----	----	----	----	----	----	----	----	----	1,000
	2,000	1.39	1.44	1.48	----	----	----	----	----	----	----	----	----	2,000
	4,000	----	1.20	1.24	1.32	----	----	----	----	----	----	----	----	4,000
	5,000	----	1.15	1.16	1.18	1.19	----	----	----	----	----	----	----	5,000
	6,000	----	----	1.11	1.13	1.14	----	----	----	----	----	----	----	6,000
	8,000	----	----	1.04	1.06	1.07	1.08	----	----	----	----	----	----	8,000
	10,000	----	----	.95	.99	1.00	1.02	1.04	----	----	----	----	----	10,000
	20,000	----	----	----	.83	.84	.86	.88	----	----	----	----	----	20,000
	25,000	----	----	----	----	.80	.82	.84	.86	----	----	----	----	25,000
	50,000	----	----	----	----	----	.68	.70	.72	.74	----	----	----	50,000
	100,000	----	----	----	----	----	----	.58	.59	.60	.61	----	----	100,000
	200,000	----	----	----	----	----	----	----	.55	.56	.57	.58	.59	200,000

## 5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

## GREENHOUSES – COMMERCIAL

**OCCUPANCY DESCRIPTION:** Enclosures used to regulate the climatic conditions for the display, sales and research of various plants and vegetables.

**NOT INCLUDED IN COSTS:** Heating or automated watering systems, shade curtains and planting benches are not included.

**INCLUDED IN COSTS:** Architects' fees and contractors' overhead and profit.

**SQUARE FOOT COST TABLE**

CLASS	TYPE	COST/SQ.FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING & PLUMBING	HEAT
<b>D</b>	Fair	\$32.30	Best redwood or laminated frame, glass or sandwich panels	Concrete floor, good display house or nursery sales	Adequate electrical, lighting, water and drains	None
	Low cost	25.80	Wood frame, glass or fiberglass covering, some vents	Dirt floor, some gravel or concrete walks, typical display-nursery house	Minimum equipment outlets and hose bibs	None
<b>S</b>	Excellent	90.75	Structural mullions, architectural embellishments, very ornate	Concrete, pavers, some partitions and extras, good conservatory type	Best lighting, electrical and plumbing	None
	Very good	73.75	Best aluminum frame, gutters, metal sandwich or masonry knee wall	Sealed concrete, research modules, glazed corridors	Good lighting and plumbing	None
	Good	59.85	Shed or gable, good glass and masonry knee wall	Good concrete floor, good display science greenhouse	Good lighting and water, good drains	None
	Average	39.70	Tubular or structural frame, good glazing, some knee wall	Concrete floor, best display or horticulture house	Adequate electrical and water service, drains	None
	Fair	32.30	Good metal frame, glass or translucent sandwich panels	Concrete floor, good display house or nursery sales	Adequate electrical, lighting, water and drains	None
	Cheap	26.30	Metal frame, glass or fiberglass covering, some vents	Dirt floor, some gravel or concrete walks, typical display-nursery house	Minimum equipment outlets and hose bibs	None

**REFINEMENTS:** On this page and the following page are the means of making major adjustments to the base costs. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

1 ADJUSTMENTS	COST RANGE
Humidifiers, each .....	\$ 435.00 – \$1,775.00
Exhaust fan cooling assembly, per unit .....	800.00 – 1,650.00
Water-drip humidity pad assembly, per square foot of pad .....	10.50 – 18.00
Automatic vent and/or environmental controls, per unit .....	780.00 – 1,600.00
Automatic chemical injectors (excluding tanks), per unit .....	2,250.00 – 3,650.00
Automatic water controls, per unit .....	260.00 – 600.00
Traveling boom sprayer, per linear foot of rail .....	50.00 – 81.75
Roof shade curtains, per square foot of cover, manual (automated, add 100%) .....	.53 – .69
Hinged vents, manual, per linear foot (automatic, add 20%) .....	23.25 – 29.50
Automatic sidewall curtain assembly, per linear foot .....	9.50 – 13.50
<b>MISCELLANEOUS SQUARE FOOT COSTS</b>	
Floors or walks: Dirt, \$.16 – \$.25; Gravel, \$.36 – \$.50; Asphalt, \$1.37 – \$2.18; Concrete, \$1.99 – \$2.89	
Water system, plastic: Spray, \$.11 – \$.21; Mist, \$.19 – \$.35; Drip tube, \$.25 – \$.40	
Planting benches, per square foot of bench: Plastic, \$2.70 – \$4.20; Wood slat, \$4.20 – \$4.80; Solid propagating, \$4.20 – \$7.30	

# GREENHOUSES

**REFINEMENTS (cont'd):** On this page and the prior page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

**2 HEATING AND COOLING**

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Unit-in-Place costs.

	Sq. Ft. Costs	VENTILATION ONLY		Sq. Ft. Costs
<b>HEATING &amp; COOLING</b>				
Hot water or steam .....	\$3.30	Vent. (fans only) .....		\$ .40
Gas furnaces .....	1.40			
Suspended gas heaters .....	1.05			
add for fan-jet duct distribution .....	.68			

**3 HEIGHT REFINEMENTS**

**STORY HEIGHT MULTIPLIERS:** Multiply base cost by following multipliers for any variation in average story height.

Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
8	.98	13	1.03
9	.99	14	1.04
10	1.00 (base)	16	1.06
11	1.01	18	1.07
12	1.02	20	1.09

**4**

Average Floor Area Sq. Ft./Story	AVERAGE PERIMETER												Average Floor Area Sq. Ft./Story	
	90	200	300	500	600	800	1000	1200	1400	1600	1800	2000		
<b>500</b>	1.71	1.84	----	----	----	----	----	----	----	----	----	----	----	<b>500</b>
<b>1,000</b>	1.65	1.72	1.78	----	----	----	----	----	----	----	----	----	----	<b>1,000</b>
<b>2,000</b>	1.36	1.41	1.45	----	----	----	----	----	----	----	----	----	----	<b>2,000</b>
<b>4,000</b>	----	1.20	1.24	1.32	----	----	----	----	----	----	----	----	----	<b>4,000</b>
<b>5,000</b>	----	1.15	1.16	1.18	1.19	----	----	----	----	----	----	----	----	<b>5,000</b>
<b>6,000</b>	----	----	1.11	1.13	1.14	----	----	----	----	----	----	----	----	<b>6,000</b>
<b>8,000</b>	----	----	1.04	1.06	1.07	1.08	----	----	----	----	----	----	----	<b>8,000</b>
<b>10,000</b>	----	----	.95	.99	1.00	1.02	1.04	----	----	----	----	----	----	<b>10,000</b>
<b>20,000</b>	----	----	----	.83	.84	.86	.88	----	----	----	----	----	----	<b>20,000</b>
<b>25,000</b>	----	----	----	----	.80	.82	.84	.86	----	----	----	----	----	<b>25,000</b>
<b>50,000</b>	----	----	----	----	----	.68	.70	.72	.74	----	----	----	----	<b>50,000</b>
<b>100,000</b>	----	----	----	----	----	----	.58	.59	.60	.61	----	----	----	<b>100,000</b>
<b>200,000</b>	----	----	----	----	----	----	----	.55	.56	.57	.58	.59	----	<b>200,000</b>

**5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.**



## GROUP CARE HOMES



**VERY GOOD CLASS D**

**OCCUPANCY DESCRIPTION:** These structures are small congregate care or special needs buildings that are more family- or residential-style in character than convalescent hospitals. They include facilities for the physically or mentally handicapped, substance abusers, battered, emergency homeless and other like groups with intermediate care needs. Therapy or lounge and administrative rooms commensurate with the quality are included.

**INCLUDED IN COSTS:** Architects' fees and contractors' overhead and profit.

**NOT INCLUDED IN COSTS:** Sprinklers, kitchen equipment, balconies, therapy or recreational equipment.

### SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
<b>C</b>	Excellent	\$143.90	Face brick, stone, best windows, shakes/shingles on good struc.	Plaster or drywall, enamel or vinyl walls, vinyl floor, carpet and ceramic	Signal system, therapy facilities, good lighting and plumbing	Warm & cool air (zoned)
	Very good	115.40	Brick or good block and stucco, good fenestration and roof	Good plaster or drywall, some detail, carpet and ceramic	Special fixtures, more than one bath per bedroom	Warm & cool air (zoned)
	Good	91.15	Brick or block, wood or good asphalt shingle roof	Plaster or drywall, good ceilings and floor covering	Individual baths, large kitchen, good electrical fixtures	Heat pump system
	Average	72.30	Brick or block, some trim	Plaster or drywall, carpet, vinyl	Adequate lighting/plumbing	Package A.C.
	Low cost	55.95	Concrete block, very plain	Painted block, low-cost flooring	Minimum quantity/quality	Forced air
<b>D</b>	Excellent	140.05	Best siding/stucco, brick ven., stone trim, shakes, shingles	Plaster or drywall, enamel or vinyl walls, vinyl floor, carpet and ceramic	Signal system, therapy facilities, good lighting and plumbing	Warm & cool air (zoned)
	Very good	111.65	Good siding/stucco, good trim, light shakes or good shingles	Good plaster or drywall, some detail, carpet and ceramic	Special fixtures, more than one bath per bedroom	Warm & cool air (zoned)
	Good	87.65	Siding or stucco, some trim, wood or good asphalt shingles	Plaster or drywall, good ceilings and floor covering	Individual baths, large kitchen, good electrical fixtures	Heat pump system
	Average	69.15	Siding or stucco, standard sash, asphalt shingles or built-up	Drywall, carpet, some ceramic tile, vinyl composition	Adequate lighting/plumbing, minimum extra facilities	Package A.C.
	Low cost	53.10	Low-cost siding or stucco	Drywall, low-cost carpet, asphalt	Minimum quantity/quality	Forced air
<b>C-D</b>	Finished basement	25.55	Finished interior, add for recreation equipment	Gypsum board ceiling, vinyl composition tile or sheet vinyl	Adequate lighting/plumbing	None
	Unfinished basement	20.65	Few partitions, little or no finish	Unfin. ceiling, slab, storage only	Minimum lighting and drains	None

# GROUP CARE HOMES

**REFINEMENTS:** On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

**1**

<b>BUILT-IN APPLIANCES:</b> For individual listings, see Segregated cost, Section SEG 1.					<b>SPRINKLERS:</b> Apply to sprinklered area.				
	<b>LOW</b>	<b>AVG.</b>	<b>GOOD</b>	<b>EXCL.</b>	<b>Sq. Ft.</b>	<b>LOW</b>	<b>AVG.</b>	<b>GOOD</b>	<b>EXCL.</b>
Allowance (if not itemized) . . .	\$875	\$1,425	\$2,300	\$3,775	3,000	\$2.45	\$3.15	\$4.00	\$5.15
					5,000	2.25	2.85	3.65	4.70
					10,000	2.00	2.55	3.25	4.10
					20,000	1.80	2.25	2.85	3.60
					50,000	1.55	1.95	2.45	3.05
<b>ELEVATORS:</b> A small passenger elevator with simple call system and push-button control, four-passenger cab, and two or three stops costs \$35,250 to \$55,500.					<b>BALCONIES:</b> Exterior balconies generally cost 1/3 to 1/2 of the final base cost per square foot of the building or they may be computed from the Segregated or Unit-in-Place costs.				

**2**

<b>HEATING AND COOLING</b>					
These costs are averages of total installed costs of the entire heating or cooling installation, including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.					
	<b>Sq. Ft.</b>		<b>Sq. Ft.</b>		<b>Sq. Ft.</b>
<b>HEATING ONLY</b>	<b>Costs</b>	<b>HEATING &amp; COOLING</b>	<b>Costs</b>	<b>COOLING ONLY</b>	<b>Costs</b>
Electric cable or baseboard . . .	\$3.55	Package A.C. (short ductwork) . . . .	\$ 7.00	Central refrigeration (zoned) . . . . .	\$5.70
Electric wall heaters . . . . .	1.40	Warm and cool air (zoned) . . . . .	9.75	package (short ductwork) . . . . .	3.95
Forced air furnace . . . . .	4.55	Hot/chilled water (zoned) . . . . .	15.40	Central evaporative . . . . .	2.70
Hot water, baseboard/convactor	6.75	Heat pump system . . . . .	7.95	Pkg. refrig. . \$1,200 to \$1,575 per ton capacity	
radiant floor/ceiling . . . . .	7.05	Ind. thru-wall heat pumps . . . . .	3.50	Evap. coolers . \$155 to \$240 per MCFM capacity	
Steam (including boiler) . . . . .	6.10			<b>VENTILATION ONLY</b>	
without boiler . . . . .	5.40	Small indiv. heat pumps cost \$1,075 to \$1,475		Vent. (blowers/ducts) . . . . .	\$1.10
Wall or floor furnace . . . . .	1.55	per ton of rated capacity.			

**3**

<b>HEIGHT REFINEMENTS</b>			
<b>MULTISTORY BUILDINGS:</b> Add .5% (1/2%) for each story over three, above ground, to all base costs.			
<b>STORY HEIGHT MULTIPLIERS:</b> Multiply base cost by following multipliers for any variation in average story height.			
<b>Average Wall Height</b>	<b>Square Foot Multiplier</b>	<b>Average Wall Height</b>	<b>Square Foot Multiplier</b>
8	.95	11	1.03
9	.97	12	1.06
10	1.00 (base)		

**4**

<b>Average Floor Area Sq.Ft./Story</b>	<b>AVERAGE PERIMETER</b>														<b>Average Floor Area Sq. Ft./Story</b>
	<b>150</b>	<b>200</b>	<b>250</b>	<b>300</b>	<b>350</b>	<b>400</b>	<b>450</b>	<b>500</b>	<b>550</b>	<b>600</b>	<b>650</b>	<b>700</b>	<b>750</b>	<b>800</b>	
<b>2,000</b>	1.02	1.08	1.15	1.21	1.27	----	----	----	----	----	----	----	----	----	<b>2,000</b>
<b>4,000</b>	----	.96	.99	1.02	1.05	1.08	1.12	----	----	----	----	----	----	----	<b>4,000</b>
<b>6,000</b>	----	----	.94	.96	.98	1.00	1.02	1.04	1.06	1.08	----	----	----	----	<b>6,000</b>
<b>8,000</b>	----	----	----	.93	.94	.96	.97	.99	1.01	1.02	1.04	----	----	----	<b>8,000</b>
<b>10,000</b>	----	----	----	----	.92	.93	.95	.96	.97	.98	1.00	1.01	1.02	----	<b>10,000</b>
<b>12,000</b>	----	----	----	----	.91	.92	.93	.94	.95	.96	.97	.98	.99	1.00	<b>12,000</b>
<b>14,000</b>	----	----	----	----	----	.90	.91	.92	.93	.94	.95	.96	.97	.98	<b>14,000</b>
<b>16,000</b>	----	----	----	----	----	.90	.90	.91	.92	.93	.93	.94	.95	.96	<b>16,000</b>
<b>18,000</b>	----	----	----	----	----	----	.90	.90	.91	.92	.92	.93	.94	.94	<b>18,000</b>
<b>20,000</b>	----	----	----	----	----	----	----	.90	.90	.91	.91	.92	.93	.93	<b>20,000</b>
<b>25,000</b>	----	----	----	----	----	----	----	----	.89	.89	.90	.90	.91	.91	<b>25,000</b>
<b>30,000</b>	----	----	----	----	----	----	----	----	.88	.88	.89	.89	.90	.90	<b>30,000</b>

**5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.**