300's—Reserves

The reserve section of this manual only includes components or costs for items most frequently found in common interest subdivisions. Reserve items for your budget may not be limited to those found in this manual. Your budget should be tailored to fit your project and include necessary reserves for all appropriate items.

Different components wear out at different rates. A deck chair may be unusable after two years while the roof may last for 20 years. Good property management practices call for a fixed amount to be allocated each year to ensure that the association will have sufficient funds on hand when a predictable major expense must be paid. Even if every existing owner believes that he or she will sell before the roof must be replaced, the existence of a reserve fund for replacement may increase the marketability and value of units to knowledgeable purchasers.

An important policy issue for the Board is the decision to use current costs, or estimated future costs. Use of an inflation rate will generally result in higher estimates of future costs.

If the Board uses current costs, it is essential that the association Board review the reserve costs annually based upon updated current replacement costs plus currently required or anticipated expenditures. The annual cost for each component would be calculated by dividing the unfunded replacement cost by the remaining useful life. THIS APPROACH IS VALID ONLY IF REPEATED EACH YEAR.

If the Board chooses to use an inflation rate, it would apply an average annual long-term cost inflation rate to all components from the time of the study until the year of replacement (based on recent average component cost data). TO KEEP THIS PLAN CURRENT, IT IS IMPORTANT TO ANNUALLY REVIEW AND UPDATE PROJECTED EXPENDITURES, INFLATION FACTORS AND OTHER ASSUMPTIONS.

There are a number of ways to select an inflation rate for estimating component costs in future years. Examples of reliable sources of information for inflation factors in California are the following:

- The Federal Bureau of Labor Statistics
- Published information from construction cost estimating companies such as R.S. Means Company, Inc.
- The California State Allocation Board

In the pages that follow under this subject, there are precalculated reserve factors for several components. The reserve worksheet in Part IV provides space for use of either these precalculated factors or factors obtained from other sources. Some building components are generally expected to last the lifetime of the structure (electrical, plumbing, etc.). Normally no reserve is established for these items.

The reserve factors in this manual are based upon new building components and equipment. Therefore, these reserve factors need to be adjusted to be used for an existing development or for the conversion of an existing structure. For existing structures you would normally divide the cost of replacing the component by its remaining useful life.

The best estimate of a component's useful life can normally be obtained from a contractor or expert in the particular field. The average lives of some of the larger building components are listed in the reserve section.

Replacement costs are difficult to estimate. However, with some effort it should be possible to arrive at a reliable estimate of replacement costs by studying appropriate building trade publications or by discussions with the customer service departments of major suppliers of building components.

301. Painting

Average Costs

Painting reserves are estimated by measuring the perimeter of each structure and multiplying that amount by the height using 10 feet per story. This is adequate for the normal one- to three-story structure. No discount or additions are considered for the openings (doors and windows). Frequency of painting will vary with the surface as well as the exposure. The basis used in this manual assumes a 10-year cycle on stucco and five years

on trim with an overall average for most structures of seven years. Each association will develop a greater or lesser amount for this reserve as experience will dictate. The estimate based on this manual is considered to be an adequate minimum for most developments. For high-rise projects it is highly recommended that multiple estimates be obtained.

The total estimated painting cost per square foot is $1.75/SF or $0.25/SF/YR for stucco and $0.30/SF/YR for wood trim.

The square footage estimate for calculating interior painting should be added to the exterior area when making the calculations. Costs will vary depending upon the amount of preparation work needed or building structure. For example, scaffolding for multi-story buildings (over two stories).

All areas to be painted should be included in your calculations. Commonly overlooked items are: gates, mailboxes, utility closets and doors, garage areas and courtyards.

Wood Siding

For associations with exterior walls of wood siding, fiber cement/Hardie, or Masonite, an adjustment should be made to the average cost indicated above. After computing the surface area of the wood siding, a factor of $0.40/SF/YR should be used to compute the reserve cost. If both stucco with normal trim and wood siding make up the exterior walls, they should be listed separately on the reserve worksheet.

Decks, Porches, Etc.

Associations without wood siding that have wood decks, porches, covered or latticed patios should also adjust their paint reserve. The factor used for wood siding would normally apply in this situation. Since this type of work is more labor intensive, similar items requiring stain instead of paint should also use the higher factor, if applicable.

302. Roofing

The following are the recommended reserves for the various types of roofing. In Palm Springs, add 20% for added costs to satisfy environmental requirements.

Roof Type	New Cost SF/YR	Average Life*
Concrete tile	$0.20	35 yrs.
Built-up paper/rock roofs	$0.35	14 yrs.
Asphalt/composition shingles	$0.30	20 yrs.
Wood shake	$0.25	24 yrs.
Wood shingles	$0.25	22 yrs.
Fiberglass shingles	$0.25	20 yrs.

** Life will vary with the quality of workmanship, material used and weather conditions.*

If the old roof must be removed, there will be additional costs that must be included when determining the total replacement cost.

Note: Projects over 10 years old are required to have a roof certification completed by a licensed roofing contractor. The certification should indicate the estimated remaining life of the roof and the cost to replace. A copy of the certification must be included with the Duplicate Budget Package (DBP).

303. Water Heaters

The estimated reserve includes the retail cost of the heater and professional installation including disposal of old unit. Estimated life is based on a 9–12 year average replacement cycle.

Capacity	Cost/Year
40 gallon capacity	$90
70–80 gallon capacity	$150
100 gallon, quick recovery	$300
Boiler (20 year life)	$300
Tankless Water Heaters	Replacement cost/Useful life

Circulating Pumps — Quick Recovery/Boilers

Line Size	Cost/Year	Average Life
1-inch	$45	7 years
2-inch	$65	7 years
3-inch	$105	7 years

Solar Heating

The California Energy Commission estimates that the collector will last at least 20 years, the tank 15 years, pumps and controls 10 years, and the plumbing 20 years. Replacement reserves estimated at 6.5% of the installed cost per year should be adequate. Maintenance is 0.5% of installed cost per year. The pump (usually 1/20–1/40 hp) will run 8–10 hours a day and consume approximately 350 kilowatt hours of electricity a year.

304. Electric Lighting Fixtures

The reserve for this item is for replacement of the fixture itself. It is assumed that bulb replacement costs are a minor repair item.

Exterior fixtures being exposed to the elements have a shorter estimated life. The following amount is considered minimum.

Exterior fixture $10–$12/year/fixture
Street lights $100–$150/year/light

305. Floor Coverings

Floor Type	New Cost SF/YR	Average Life
Carpeting	$0.80	5-7 years
Linoleum	$0.30	10-14 years
Hardwood (refinishing only)	$0.40	7-10 years
Vinyl Tile/Sheet	$0.40	15 years
Waterproofing (deck/patio/terrace)	$0.60	3-5 years
Slip Sheet Floor	$10-$12	12-15 years
Tile Seal	$0.50	3-5 years
Tile Grout	$0.30	5-7 years

306. Elevators

An elevator replacement reserve is not required since the elevator usually lasts as long as the structure itself. There is need, however, for a major component reserve as well as a budget item for a monthly service contract. The cost of periodic servicing of the overhead traction elevator is higher than that for the hydraulic lift type. The mechanism to operate the hydraulic lift elevator is much more extensive and complicated.

Hydraulic $1,050/year (see note)
Traction Full service only—no reserve

Note: Less than a full-service contract on a hydraulic-type elevator will require a reserve as shown above. Less than full service is normally referred to as "oil and grease contract service."

307. Street and Driveways

Asphalt – Intermittent Care

Budgeting should consider the long term care of streets, driveways and parking areas. A full cycle of maintenance should be provided that includes all applicable items shown below.

Seal coat	Slurry coat
Culverts	Provision for storm damage
Sign replacement	Striping
Re-oiling	Patching
Re-graveling (gravel roads)	Berming

Asphalt surfaces should be resealed every 3–5 years. They will probably also need intermittent care such as striping and patching. The reserve based on a cost of $0.20 per square foot per year can be used to defray theses costs in moderate climates. Where there are special problems such as severe weather or unusual physical conditions as in Northern California, the cost could double.

Oil and Chip

"Oil and Chip" surfaces normally have a life of 3 or 4 years and would require $0.12 per square foot per year reserve.

Cost Summary

Surface Type	SF Cost Per Year
Asphalt surfaces (blacktop (moderate climates)	$0.20
Oil and chip surfaces	$0.12
Concrete repairs	$0.05
Pavers	$0.05

Large areas may cost less on a cost per square foot basis. It may be advisable to get a bid if you fall into this category.

308. Heating and Air Conditioning

Type	Average Cost Per Year	Average Life
Forced air furnace (for average recreation room)	$150	20 years
Forced air furnace with A/C (for avg. recreation room)	$250	20 years
Heat Pump (used with central unit)	$150	—
Thru wall A/C units	$100	9 years
Floor or wall furnaces	$75	13 years
Central Heat, A/C for units	Cost ÷ 20-year life	

The best method of setting up reserve costs for these items is to determine the cost of the equipment installed, and divide by the life indicated.

309. Swimming Pools and Spas

Pool and spa costs will vary for large custom pools or spas. Accordingly. For standard sizes, average costs are:

Item	Average Cost Per Year	Average Life
Pool Re-plaster	$800	10 years
Pool Heater	$550	10 years
Pool Filter	$175	10 years
Spa Re-plaster	$350	7 years
Spa Heater	$300	8 years
Spa Filter	$250	10 years
Pool/Spa Pumps	$150	5 years
Elastomeric Caulking	$5/LF	5 years

Solar Heating

Reserve requirements will vary with the type of collector panel used as well as with the price. Most pool systems use "unglazed" collectors which are cheaper than those used for water heating. Unglazed collectors vary, also: those made of metal will last longer than plastic. The California Energy Commission has not made public its figures on the useful life of this equipment. Depending on how the system is used, there may be a small increase in electricity used to run the filter pump. Replacement reserves amounting to 6.5% of the installed cost per year should be adequate. It is recommended that several estimates are obtained from vendors when budgeting for this item.

310. Tennis Courts

Item	Cost Per Year
Net replacement (3 yrs.)	$165-$350
Wind screen (full court; 5 yrs.)	$2.50/SF
Asphalt resurfacing (4–7 yrs.)	$2.25/SF
Concrete resurfacing (5 yrs.)	$4.25/SF
Light fixtures	$200
Elastomeric caulking (4-6 yrs)	$5/LF

311. Furnishings and Equipment

Item	Cost
Furnishings	Cost ÷ 5 years
Appliances	Cost ÷ 10 years
Equipment	Cost ÷ 6 years

312. Walls and Fences — Replacement/Repair

Item	Cost Per Year
Chain Link (repair/replacement; 17 year life)	$1.00 linear foot
Concrete block (repair)	$0.25 linear foot
Concrete block (paint)	$0.30 square foot/side
Tubular fence (paint)	$1.00 square foot

Tubular fence (repair/replacement; 15 year life)	$3.00 linear foot
Wood (repair/replacement; 10 yr life)	$3.00 linear foot
Wood (paint/stain)	$0.80 square foot/side
Wrought Iron (paint)	$1.00 square foot/from paint worksheet
Wrought Iron (repair/replacement; 20 year life)	$5.00 linear foot
View Panels (20 year life)	$2.00 linear foot
Wood Siding (repair/replacement; 15-year life) (See item 301 in this manual for Wood Siding paint)	$0.60 square foot

313. Miscellaneous

Item	Cost Per Year
Sump pumps (12 year life)	$60
Sewer lifts (pumps; 10 yr life)	$250
Garage ventilation systems (each parking level)	$300
Solar systems (Also see Gas & Pools)	Total Cost ÷ 10–15 yr. life
Racquetball courts	$240
Lakes/waterways	Provide engineer's report for construction cost, yearly maintenance and reserve costs.
Motorized gates	
Gate	$275 (repair/replacement; 15-year life – large double gates, $500/yr)
Gate operator	$180 (all types–5 yr. life)
Total Per Gate	**$455**
Loop Detector (3-5 yr. life)	$150-$200
Wallpaper (10 yr. life)	$0.19 square foot
Tree Trimming: (small to mature trees)	$45-$95 per tree
Landscape reserve	$0.05/square foot

Reserve cost for septic tank

Use 6% of the total cost for leach field excavation, gravel, paper, straw and other backfilled materials, leach field pipe, distribution boxes, and valves. This cost is approximately $75 per living unit per year.

Emergency Power Systems

Most mid-rise and high-rise projects are equipped with emergency lighting equipment. Costs typically include inspection and maintenance of the generator(s), if any, and replacement of the battery pack for each emergency lighting unit. The battery packs typically cost about $150 each and have a nine-year life.

314. Fountains

Fountains will cost anywhere from $1,975 to $35,000 depending on size, water flow and spray design. Fountain pumps typically last 5–6 years while the fountain itself will have a life of approximately 20 years.