

# Reserve Study Cost Principles

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# Estimating Component Cost

- Cost estimating is the second major part of the reserve study process
- WHY is pricing / valuation so important?
- Valuation is a separate discipline from component evaluation or financial analysis
- Valuation requires different skills and training

# Estimating Component Cost

- Valuation - Cost estimating is a profession with specialized skills, training, education, and certifications
- There is some math, so it's scary to a lot of people
- There are many moving parts in a big estimate: designers, insurance, labor, materials, equipment, subcontractor and more

# Topic 1 - What is Cost?

Cost elements include:

- 1) Material/Product Cost
- 2) Sales Tax
- 3) Delivery
- 4) Installation/Setup
- 5) Contract Cost
- 6) Removal/Demo
- 7) Engineering
- 8) Permits
- 9) Labor
- 10) Disposal
- 11) Project Management
- 12) Other Costs

# Topic 2 – Cost Sources

## Sources

- A) Contractor cost guides
- B) Bids from vendors
- C) Vendor estimates
- D) Prior actual costs
- E) Contracts
- F) Reserve Professional Cost Database
- G) Prior Reserve Study

# Topic 2 – Cost Sources

## Hierarchy of cost sources – what is the reliability level of each source?

- 1) Contracts
- 2) Bids from vendors
- 3) Vendor estimates
- 4) Prior actual costs – loses reliability as it ages
- 5) Contractor cost guides
- 6) Reserve Professional Database
- 7) Prior reserve study – loses reliability as it ages

# Topic 3 – Benefit or multiple data points

## Component Cost Analysis

Component: Heat Pump 2.5 Ton

Current Replacement Cost	
Analysis Date	Replacement Cost
01/01/2024	\$ 12,900

### Master Database Valuation

Last Update Date	Replacement Cost
04/01/2024	\$ 12,808

### Original Component Valuation

Date Acquired	Original Cost	Inflated Cost
01/01/2015	\$ 8,250	\$ 10,764

### Prior Reserve Study Valuation

Prior Study Date	Replacement Cost	Inflated Cost
01/01/2021	\$ 7,073	\$ 7,285

Current Replacement Cost Detail		
1	Material/Product Cost	7,600
2	Sales Tax	608
3	Delivery	0
4	Installation/Setup	4,600
5	Contract Cost	0
6	Removal/Demo	0
7	Engineering	0
8	Permits	0
9	Labor	0
10	Disposal	0
11	Other Cost	92
	Total Cost	\$ 12,900

### Table of Future Values

Year	Analysis Date	Future Cost
1	1/1/2025	13,287
2	1/1/2026	13,686
3	1/1/2027	14,096
4	1/1/2028	14,519
5	1/1/2029	14,955
6	1/1/2030	15,403
7	1/1/2031	15,865
8	1/1/2032	16,341
9	1/1/2033	16,832
10	1/1/2034	17,337
11	1/1/2035	17,857
12	1/1/2036	18,392
13	1/1/2037	18,944
14	1/1/2038	19,512
15	1/1/2039	20,098
16	1/1/2040	20,701
17	1/1/2041	21,322
18	1/1/2042	21,961
19	1/1/2043	22,620

# Topic 4 - Contractors Pricing Process

- **Fixed price (also called lump price) for the entire project**
- **Time-and-materials contract (or cost-plus).**

Most HOA and Condo communities are protected better by Lump Sum Contracts



# Topic 4 - Construction Bidding Steps

1. Receive Solicitation
2. In-house estimating and pricing
3. Submission
4. Selection
5. Contract
6. Project Begins

# Topic 4 - Items in the Construction Contract

1. Contact Information
2. Scope
3. Existing Conditions
4. Cost
5. Terms of Payment
6. Relevant Documents
7. Schedule

# Topic 4 - Contract Options

1. Design with Cost, Plus Fee
2. GMP – Guaranteed Maximum Price
3. Lease - Leaseback.
4. Time and Material plus Percentage
5. Lump Sum

# Topic 5 - Self Construction by HOA

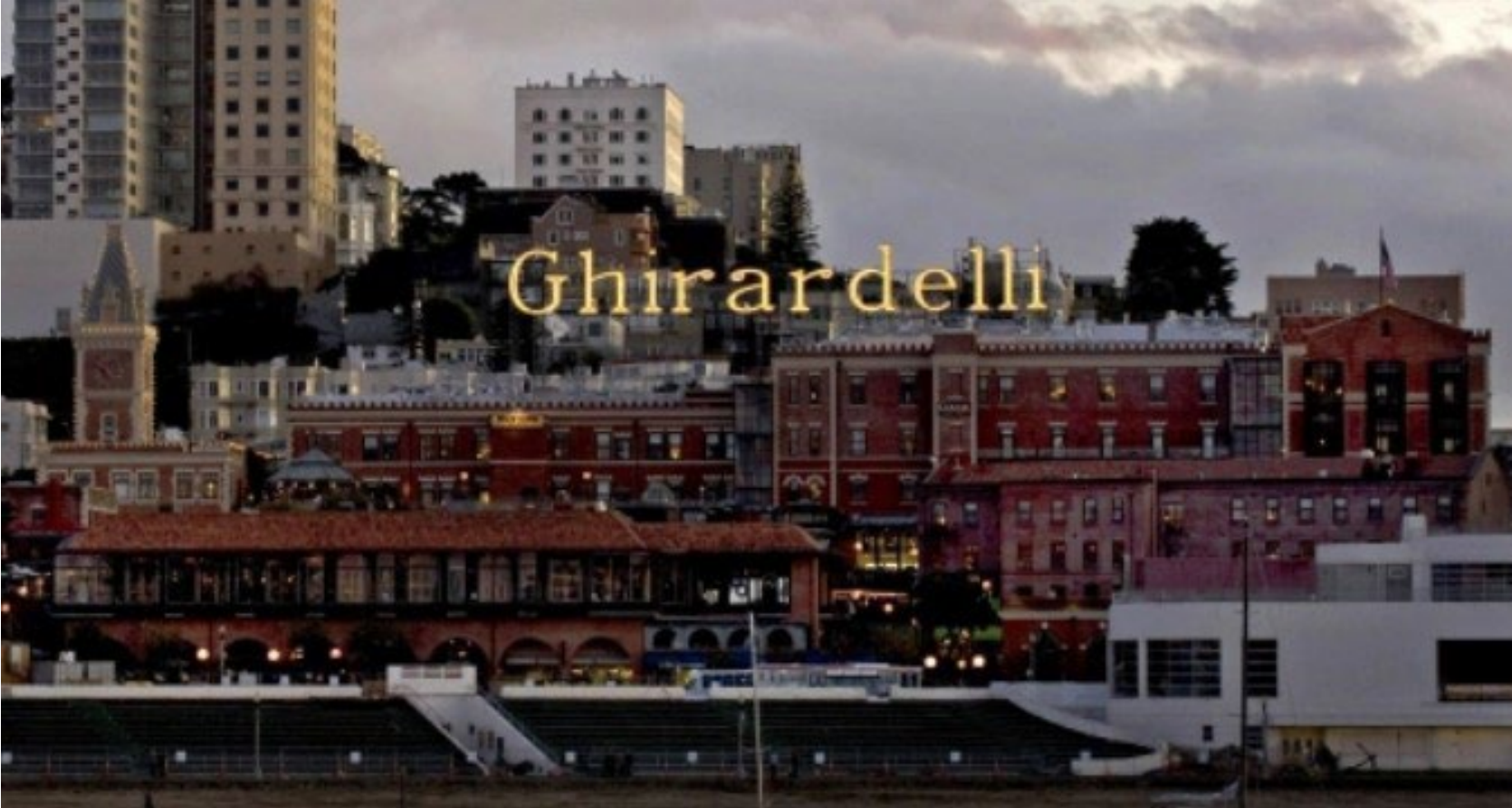
1. Size and ability of work force
2. Adequate tools for the project
3. Indirect costs
  - a. Insurance - health, liability
  - b. Payroll taxes
  - c. Vacation, holidays, sick days, training etc.
4. Pricing and buying power and material knowledge

# Topic 5 - Self Construction by HOA

- Different cost issues must be considered
- Largely an accounting issue
  - Which fund is paying?
  - What costs are included?

# Topic 6 – Cost Case Study

Aerial view





# Topic 6 – Cost Case Study



# Topic 6 – Cost Case Study





# Topic 6 – Cost Case Study



# Topic 6 – Cost Case Study



# Topic 6 – Cost Case Study

1) Engineering	\$ 8,500	Parts	
2) Permits	\$ 22,500	Electronic Controls	\$ 12,500
3) Crane Rental	\$ 7,500	Burners	\$ 8,500
4) Traffic Control	\$ 4,000	Valves	\$ 3,500
5) Contract Cost	\$ 250,000	Expansion Tank	\$ 9,500
6) Disposal	\$ 4,500	Pump	\$ 2,800
7) Installation	\$ incl		
8) Sales Tax	\$ incl		
9) Total Cost	\$ 297,000	Total Parts	\$ 36,800

# Topic 5 – Cost Case Study

How are costs presented in reserve study?

	<u>30-Year cost presentation</u>		
<u>Description</u>	<u>Option 1</u>	<u>Option 2</u>	<u>Option 3</u>
Boiler Full Replacement	\$ 250,000	\$ 297,000	\$ 297,000
Parts Cycle 1			\$ 36,800
Parts Cycle 2			\$ 36,800
Parts Cycle 3			\$ 36,800
Total cost	\$ 250,000	\$ 297,000	\$ 407,400



# Topic 7 – Presenting Cost Information

- 1) The reserve study is a budget
- 2) The reserve study is not a maintenance plan
- 3) Scope of component detail

# Topic 8 – Cost – Perception is Everything

- HOA just paid \$ 5,841.16 to replace a component
- What current replacement cost do you put in the reserve study?

# Topic 8 – Cost – Perception is Everything

- Rounding to next highest \$100 or \$1,000 is preferable
- EXACT cost figures imply a level of accuracy that is not achievable – builds the wrong expectations
- Based on a recent actual cost of \$5,841.16 my estimate of current replacement cost would be:
  - \$5,900
  - \$6,000
  - Or higher

# Topic 9 – Data Versus Information

Component	Replace Date	Basis Cost	Quantity	Current Cost
Fencing - Metal	9/2033	\$ 105.00	296 LF	\$ 31,080
Fender Passport	6/2024	525.00	1 Unit	525
File Cabinets, 2 Drw, Qty 6	10/2030	525.00	6 Unit	3,150
Filters - Reclaimed Water System	9/2024	12,600.00	3 Unit	37,800
Fire Extinguisher	9/2027	105.00	2 Each	210
Fire Extinguishers	6/2024	105.00	12 Unit	1,260
Fire Riser	9/2057	12,600.00	1 Each	12,600
Fire Sprinklers	9/2029	840.00	1 Allow	840
Flammable Storage Cabinet	10/2025	2,310.00	1 Unit	2,310
Flat Bed Trailer	10/2024	3,885.00	2 Unit	7,770
Floor Scrubber Windsor	1/2039	4,200.00	1 Unit	4,200
Flooring - Lap Ceramic	6/2026	8,190.00	1 Unit	8,190
Flooring - Gym	10/2027	1.00	2,000 SF	2,000
Flooring - Lobby/AR	10/2025	1.00	5,600 SF	5,600
Flooring - Rubber Safety	9/2027	3.00	2,000 SF	6,000
Flourescent LED Lights	9/2032	315.00	12 Each	3,780
Flourescent Lights	5/2038	5,250.00	1 Job	5,250
Fork Lift - Upgrades/repairs	12/2034	8,400.00	1 Each	8,400
Fujitsu Halcyon IAQ	6/2024	1,890.00	4 Unit	7,560
Fujitsu Scanner	9/2024	1,050.00	1 Unit	1,050
Furnace	9/2032	3,150.00	1 Each	3,150
Furnishings - Admin	10/2025	12,390.00	1 Allow	12,390
Furnishings - Clubhouse	10/2024	21,000.00	1 Allow	21,000
Furnishings - Library	9/2024	12,915.00	1 Allow	12,915
Furnishings - Lobby	9/2024	26,250.00	1 Allow	26,250
Furniture Set	6/2030	840.00	1 Unit	840
Garage Door	9/2024	2,100.00	1 Unit	2,100
Gas BBQ	9/2024	525.00	1 Unit	525
Gas Tank - 1000 lb	6/2025	52,920.00	1 Each	52,920
Gate Operators - East	10/2025	3,780.00	2 Unit	7,560
Gate Operators - Main	10/2025	3,780.00	3 Unit	11,340



# Topic 9 – Data Versus Information

Location	Replace Date	Replace Life	Current Cost
Administration	05/24-10/47	0:01 -23:06	\$ 640,795.00
Clubhouse	10/24-09/43	0:06 -19:05	104,355.00
Fitness Center	09/24-09/57	0:05 -33:05	437,772.00
Gate Houses	05/24-09/33	0:01 - 9:05	130,410.00
Golf Course	09/24-10/30	0:05 - 6:06	356,895.00
Grounds	07/24-10/36	0:03 -12:06	666,830.00
Maintenance	06/24-12/34	0:02 -10:08	1,063,860.00
Pavillion	09/24-10/35	0:05 -11:06	26,235.00
Pool Area	06/24-10/57	0:02 -33:06	869,740.00
Recreation Center	06/24-10/38	0:02 -14:06	851,175.00
Recreation Center - AR	09/24-09/38	0:05 -14:05	269,445.00
Recreation Center - Clubs	06/24-01/39	0:02 -14:09	187,590.00
RV Lot	09/24-10/30	0:05 - 6:06	13,650.00
Security	09/24-05/34	0:05 -10:01	180,810.00
Sports Park	09/24-10/36	0:05 -12:06	173,675.00
Streets	07/24-07/49	0:03 -25:03	10,288,526.28
Units	09/24-09/24	0:05 - 0:05	241,750.00
			16,503,513.28

# Topic 9 – Dealing with Unknowns

What if you don't know and can't estimate timing of the next repair cycle?

What if you can't estimate cost of next repair cycle?

Is it acceptable to use an estimate in these circumstances?

This is a budget – “allowances” are acceptable irrespective of what standards may tell you.

# Topic 10 – Fully Funded

Component cost \$100,000

Life 10 years

No inflation

Year 8 you have accumulated \$80,000 in reserves

Are you 100% funded?

Component fails today – you need \$100,000 tomorrow

Are you fully funded?

# Reserve Study Cost Principles

- Questions?
- Comments?
  
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