FUTURE REPLACEMENT COST CACULATOR: DOCK SYSTEM

developed for marina owners and operators by Bellingham Marine ©2018

EXAMPLE SCENARIO

A yacht club has just replaced its marina at a cost of 8.5 million. The marina is expected to have a useful life of "y" years and no salvage value. The yacht club is establishing a "sinking fund" for the purchase of a new marina in "y" years. Research indicates that on average the cost of construction increases "z"% each year. The club can earn about "x"% in a conservative investment account on its monthly deposits. How much must the club deposit into the sinking fund at the end of each month to meet is marina replacement cost?

Assumptions:	**Variables**
Cost of new yacht club today	8,500,000.00
30% down (for a 20 yr. commercial loan)	2,550,000.00
Annual increase in cost of construction	**z%**
Interest Rate	**x%**
Useful Life	**y**
Salvage Value	0

Price of a new Marina in 20 years will be: PV * (1+i)^n = FV

Assumptions:	**Variables**
payment made at end of month with interest compounding monthly	
AV	**FV**
n	**y*12**
i	**x/12**

Sum of all future payments must equal **FV**

PMT = (i*FV)/(((1+i)^n)-1) **Monthly Payment Amt.**