

INFRASTRUCTURE REPLACEMENT PLANS (AKA “RESERVE STUDIES”) FOR MUNICIPALITIES

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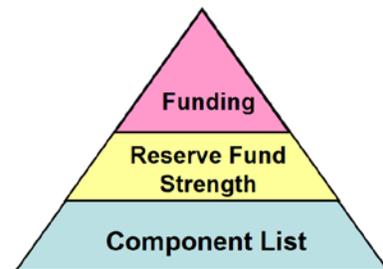
www.reservestudy.com

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Miss the webinar? Watch it [here](#).

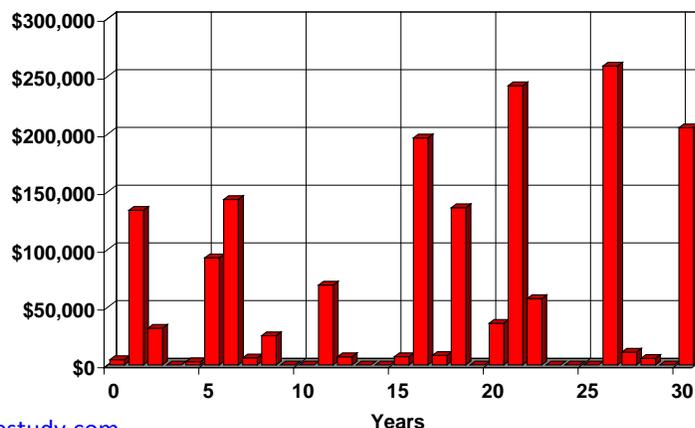
Tired of always reacting to projects that were foreseeable *years in advance*? Tired of budget success relying on being lucky that only a few projects happened during the year? Reduce your personal stress and improve fiscal operations in general with an infrastructure replacement plan (Reserve Study) that does three things:

- Identifies the predictable projects
- Identifies your starting financial position
- Identifies the cash flow needed to perform these projects in a timely manner.



Infrastructure Replacement projects are inevitable and irregular, but they are predictable, which makes them manageable. A series of projected expenses looks like this:

Annual Reserve Expenses



Those expenses are based on a “Component List” of predictable projects that meet this National Reserve Study Standards four-part test:



RESERVE COMPONENT “FOUR-PART TEST”

The result is a Component List of the major, predictable infrastructure projects that allows your organization to responsibly prepare for these projects. Not getting buy-in to preparing in advance? Try choosing your words carefully and describing Reserve set-asides as “offsetting ongoing deterioration”, not “for the future”. The very predictable ongoing cost of deterioration is as real as any other bill or expense!

Which facilities/structures are good candidates for such advance planning?

Asset List:

- City Hall/Police Station
- Library
- Housing Units
- Fire Station
- Water Treatment Plant
- Maintenance Yard
- Rec Facilities
- etc



Infrastructure repair/replacement projects will happen whether or not you are prepared. So manage these projects, don't resign yourself to always having to react.

Why plan ahead? Get an improved future!

Set yourself up with an Improved Future!

- Avoid surprises
- Save money
- Improved usage
- Stabilize cash flow



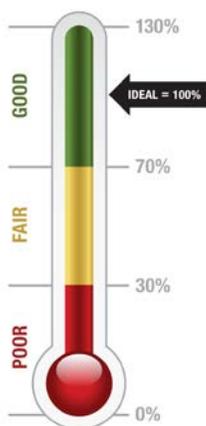
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There are three types of these infrastructure replacement plans:

Full: Prepare “from scratch”

WSV Update: re-inspect the facilities without having to totally recreate the document

NSV Update: refresh all Life, Cost and starting fund balance information based on interviews with client and client representatives



RESERVE FUND STRENGTH

Fund Strength is measured on a “Percent Funded” scale, and falls into three categories: strong, fair, and weak. Cash flow crises are common when the Reserve Fund is in the “weak” range, where Reserved cash is only 0-30% of the value of deterioration at the property (strength is measured as the cash percentage of total value of deterioration).

You own it
You're responsible to maintain and
replace it
Deterioration is inevitable
The cost of deterioration is predictable

Get in front of it – plan ahead! Improve
your future.

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The Basics are summarized by the following “Four Reserve Rules”:

- 1) Expenses always happen – they can't be avoided
- 2) Leadership is responsible to maintain the assets (guessing is irresponsible)
- 3) Delays usually get expensive (it saves time and money to plan ahead)
- 4) Taxpayers always get stuck paying the bill (so save their money and your time by planning ahead responsibly)

View a sample report [here](#).

View a short 8 min video [here](#) summarizing why a Capital Plan (Reserve Study) is beneficial

View a 2-minute summary of Capital Plans (specific to Municipalities) [here](#).

No worries – you don't have to face this future by yourself. [Association Reserves](#) is here to guide you and your facilities toward a successful and financially sustainable future!



Webinar Questions Asked by Attendees

Q: How many components are in a typical Component List?

A: Typically 35-55. There are a few very simple properties with very short Component Lists, while larger and combined purposes properties (City Hall, Police Station, Library...) may have well over 100 Components.

Q: What is the proper way to add components or adjust values for your components?

A: Make those changes in your next (annual) Reserve Study update. Give that information to your Reserve Study professional (a change in quantity, information about a project that costs more or less than expected, or something that is lasting longer or failed earlier than expected, something that was replaced with Operating funds, etc.). Keep your Reserve Study updated and accurate! It's the best way to keep your facility "on target" financially.

Q: What do you recommend for cities that are underfunded?

A: Begin. You'll be faced with cash flow problems for the next 5-10 years, but all the advance preparation you do will begin to soften the blow of those expenses and will likely begin to reduce costs as deferred maintenance is avoided. Deterioration is ongoing, and it is only responsible that you begin to offset this predictable deterioration with cash set-asides. Every little bit you can do to prepare in advance will help.

Q: What if we don't have any funds set aside in Reserves at this time?

A: While that is unfortunate, it is all too common. New is nice, new is exciting, and new gets attention. But everything deteriorates, and it is significantly less expensive to maintain in good condition than let decay and rebuild. So: begin. Begin to set cash aside. Every dollar set aside will improve your preparedness for the future.

Q: Do you use current or future costs in your planning?

A: Per National Reserve Study Standards, Current Costs are identified and displayed in the Reserve Component List. Current Cost is used computing the current Percent Funded (strength) of the Reserve Fund, but inflated future costs are used when calculating the multi-year Reserve Funding Plan that is spread over future years.

Q: How are replacement costs determined?

A: The typical methods are client history, our relevant experience with other similar clients performing similar projects, interviews with knowledgeable vendors, and usage of national estimating cost guidebooks. All costs are scaled to local prices.

Q: How does good or poor maintenance affect your plan?

A: Good maintenance extends the Useful Life of the component, which means the same asset will last longer (reducing costs). Good maintenance is money well spent!

Q: Where in the US do you work?

A: We currently have clients in all 50 states.

Q: If you have a full maintenance service contract with an item (HVAC), do you still plan for its replacement?

A: Yes. Good maintenance is great, but an item still fundamentally ages and approaches the end of its Useful Life. As it does, a full maintenance service contract will become gradually more expensive or unavailable, or the service interruptions of “down time” will become increasingly unacceptable. You may actually gain some real benefit from an improved new (energy efficient) replacement component. So prepare for replacement.

Q: What type of facilities do you handle?

A: Our company started by serving residential condominium associations, expanding naturally to resort properties (timeshares), private schools, then worship and municipal facilities. With respect to municipalities, we’ve prepared Reserve Studies for new and old (historical) facilities, complex multi-purpose facilities (City Hall and Police Station and Library), simple facilities (parks or parking structures), subsidized housing units, etc.

Q: Do you address infrastructure items such as storm drains?

A: Per National Reserve Study Standards (NRSS), if the asset or system has an identifiable limited Useful Life, if its good/fair/poor condition (age) can be identified, and its replacement cost (scope of work) can be identified, yes. Where a component project cannot be identified specifically, we often create an “allowance” for periodic repairs and upgrades to the asset. This provides for ongoing upgrades throughout, regularly eliminating any “weak link” or old/deteriorated areas, even those specific old/deteriorated areas that may have not been predictable in advance.

Q: Can/should we reserve for an earthen dam and the lake?

A: If either of those assets meet the NRSS four-part test, yes. Consider the need for soil movement and stabilization. Consider the need for landscape control around the perimeter of the dam. Consider the need for spillway (or bridge) maintenance. Consider the need for dredging the lake bottom. There are many ways earthen dams and lake components can and should appear on your Reserve Study.

Q: How far ahead do you plan?

A: National Reserve Study Standards require we present at least 20 years of income and expenses. While that is a pretty good benchmark, there are many major projects with life expectancies in excess of 20 years (roofing, elevator modernization, etc.) that are very expensive, so those are also included in our financial plan.

Q: How would you recommend I get our City Council to begin planning ahead?

A: Choose your words carefully. Characterize Reserve needs in present tense terms, “necessary to offset ongoing deterioration”, not “for the future”. People have a natural tendency to defer or delay problems that aren’t pressing, so everything you can do to characterize them as another bill to pay, just like any other bill, will be helpful. Remember, infrastructure replacement projects may be irregular, but they are inevitable and very predictable, and the ongoing cost of deterioration is relatively constant. In addition, gather together photos and the testimony of facility staffmembers to strengthen your “pitch”.

Q: How accurate are your projections?

A: While the future is uncertain, deterioration is very predictable. Our estimates are very reliable. A cost may end up being a bit larger or smaller, or it may occur a little earlier or later than anticipated, but we are usually very close. The accuracy of our projections is not a limiting factor. Our projections prepare our clients for an improved future.

Q: Are your costs and life cycles regionally adjusted?

A: Yes. For instance, our life cycles are different between waterfront or arid locations, or even fresh water vs salt water locations, and certainly freeze/thaw environments are treated very differently than predominantly warm environments. The same adjustments are made for costs... anchored to local pricing norms.

Q: What are the strengths/limitations of this kind of report compared to an annual or biennial Capital Improvement Budget?

A: In our experience, Capital Improvement Budgets tend to be “wish lists” stacking projects into the future. A Reserve Study identifies existing installed assets, and the ongoing cost to repair/replace their individual components.

Q: What does it cost to hire a company to perform a Reserve Study from scratch?

A: It all depends on scope of work (magnitude of the facilities in question). We’ve been hired for as little as one specific building, or a city-full of different assets (37 different reports). This makes it difficult to answer this question simply, so it is best to get a proposal. Click [here](#) to answer a few questions and get a proposal for your facility (facilities).

Q: Looking at your website, if you don’t have an office close to us, how do you perform the site inspection (who do you use), and what are the additional costs?

A: We select a trained/credentialed Project Manager from the most appropriate Association Reserves office, and travel to your site. No subcontractors or outside contractors are utilized. Any travel costs are built into our proposal.

Q: Should we Reserve for entire building replacement in addition to component (roof, asphalt, carpet) replacement projects?

A: No. Only specific components/projects that meet the National Reserve Study Standards 4-part test.

Q: What is deferred maintenance?

A: A project that is delayed, typically due to inadequate funds or indecision. The typical result is a higher project cost due to greater deterioration.

Q: How do you establish Useful Life and Remaining Useful Life?

A: Our experience, observed condition, level of maintenance, environment, quality of material and workmanship, age... to name a few considerations.

Q: What inflation factor do you recommend?

A: As a Reserve Study is a document that projects trends for decades into the future, we recommend a stable inflation rate like 2.5% or 3%, representative of average trends in the past.

Q: How is Percent Funded calculated?

A: It is a two-step process. For each component, the fractional age of the asset is calculated, and multiplied by the replacement cost to yield the value deterioration. So for a \$10,000 project that occurs every 10 years, that is two years old (it is now 2/10ths “used up”), the value of deterioration is \$2000. Do that calculation for all your components and sum them all together to get a total value of current deterioration at the facility. Then you compare your Reserve Fund to the value of deterioration, and that is Percent Funded. If you have \$60,000 in reserves and your total deterioration is \$100,000, your facility is 60% Funded. See [here](#) for more.

Q: For street replacement, should reserves be set aside during the first years or only as it approaches a specific “window” in the future (10 to 20 years away)?

A: Reserves should be collected throughout the life of the component, so funds can be collected smoothly over the entire life of that deteriorating component, minimizing Reserve contributions surges with the approach of large projects.

Q: Why do you recommend an annual Reserve Study update if your major projects are many years away?

A: Because major Reserve projects take years of financial preparation. Conditions change, costs change, and economic environmental factors change. You want to be making progress towards your goal each year, not spending years drifting off-target.

Q: What are the pitfalls of only getting estimates for a few components (asphalt, perimeter wall, etc.) instead of commissioning an entire Reserve Study?

A: Who’s to say that those are the only major components? How are you gathering the funds for all the other components that will need to be replaced?

Q: If you are doing this yourself, where would one get estimates for a few components (asphalt, perimeter wall, etc.)?

A: National construction estimating guidebooks, Internet research, and current vendors.