

# Key Components of a Data-Based Capital Improvement Plan

*This five-step, data-based CIP development process documents needs and helps secure funding.*

By John Hutchison, CPA, MBA, SFO



In my 20-plus-year career, I have worked in several school districts, including a stint in private education, and have always been involved in operations and new construction. Each organization approached capital improvement planning in different ways. That diverse experience has helped me craft a data-based blueprint for developing a capital improvement plan (CIP).

On the surface, a CIP looks like a simple listing of repairs, replacement cycles, and new construction needs—not too complicated to create. You just sit down

with a group of administrators and write down your needs, right? Wrong. What happens when the list ends up being longer than the funding is deep? What if one of those needs is controversial (a new administrative center) but absolutely necessary? How can you be sure you have identified the “needs” and not just the “wants”?

Your process must be based on prioritization, justification, equity, and sound economics. I believe I have developed such a process. My CIP development process has five key components: (1) assembling a team of experts, (2) conducting walk-throughs of school sites, (3)

rating the necessity of improvements, (4) summarizing the data and categorizing the projects, and (5) obtaining the financing.

### Team of Experts

The first step in developing a data-based CIP is to assemble the appropriate team of experts. Don't think you alone have all the knowledge necessary to complete the process. You are good, but not that good.

If your plan will include projects that address a growing or declining student population, you will need help with demography. Each improvement will also require a cost estimate. If you are not an expert in estimating the costs of repairs, construction, and technology, find one. Even if that expertise exists within your district, I recommend using an expert from afar to validate your numbers.

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As you go "sell" your plan, both internal and external stakeholders must trust your data. Although research suggests that our beliefs rather than experts influence our opinions (Nicholson 2010), external experts bring credibility to the findings. Just look at our justice system and the use of expert testimony. Expert testimony is required when determining standard of care or when causation is beyond the ordinary experience and knowledge of the normal fact finder. Most of your patrons and board members will not have the intimate knowledge of the inner workings of the school district and whether the suggested improvements are warranted and appropriately priced.

So don't try to save a buck by justifying your plan yourself. Third-party experts will bring credibility to your plan that you alone cannot. With credibility comes trust. Findings from Nielsen Research indicate that 85% of consumers regularly or occasionally seek out experts or trusted content (Henshaw 2014).

### Boots on the Ground

OK, you have your team of experts lined up. Now what? It's time to slip on a pair of comfortable shoes and hit the road and visit your campuses. Previously, I performed this step myself (over 60 locations!), but recently I passed the task on to someone on my staff.

The process is simple: you walk every square foot of every building and the grounds in your district with the administrator in charge of that site. I recommend that your cost expert or experts come along for as many of the walk-throughs as possible. Although you will start to see similar projects across buildings, each site will present unique challenges that affect cost.

If at all possible, have the same cost expert do all of the estimations to provide consistency. But what is far more important is that you or your designee walks every foot of the district. That process is extremely subjective. Administrators will present make their case to you about improvements. You will have to assess whether their requests are wants or needs. You must apply your standard fairly and equitably across all of the sites. If you delegate this work to several people, you introduce multiple, subjective views that threaten the fairness and equity of your process.

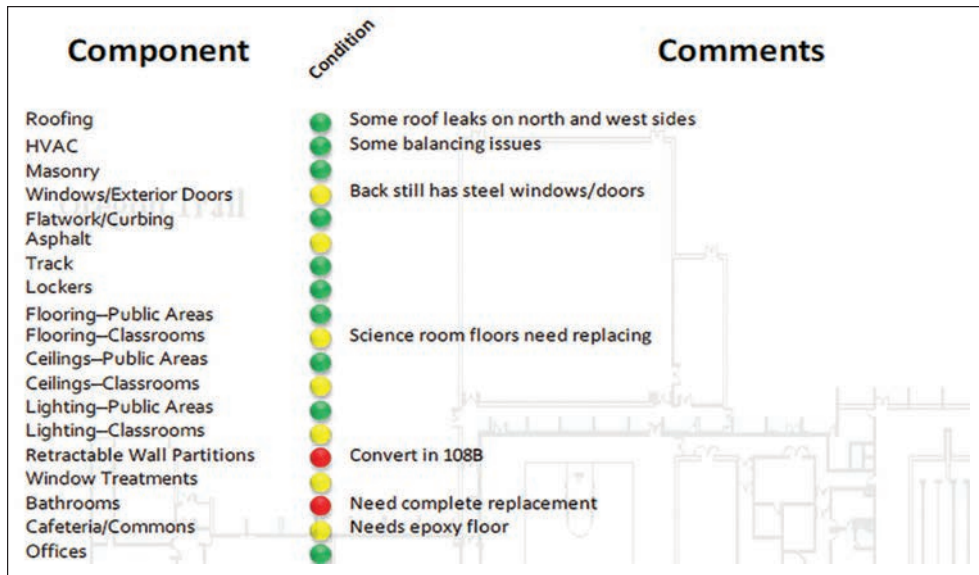
For the results to be good science, you need a constant—you. Even if you delegate this step to one of your staff members, go along on a few visits so you can validate the consistency of his or her assessments.

### Red Light, Green Light (and Sometimes Yellow Light)

Every child has played Red Light, Green Light. But what I am talking about here is far from child's play. You have to introduce a measurable scale to your data—a scale (or scales) that helps tell the story, puts the data in perspective, and prioritizes and justifies the projects.

I have found that rating categories of improvements on the basis of a green light for no improvements needed, a yellow light for improvements needed within the next three to five years, and a red light for improvements needed immediately resonates with stakeholders. I use the following components to guide the walk-through:

Roofing	Ceilings—public areas	Auditorium/theater
Heating, ventilating, and air conditioning	Ceilings—classrooms	Library
Masonry	Lighting—public areas	Weight room/locker room
Windows/exterior doors	Lighting—classrooms	Gyms
Flatwork/curbing	Retractable wall partitions	Landscaping
Asphalt	Window treatments	Interior finishes
Track	Bathrooms	Safety and traffic
Lockers	Cafeteria/commons	Pool area
Flooring—public areas	Offices	Furniture
Flooring—classrooms	Nurses' rooms	Other



**Figure 1.** Facility Walk-Through Components and Priorities.

**Safety and security.** Projects in this thread are related to improving security and student safety. Examples include the construction of secured entrances that control access and the installation of lockers in elementary schools to keep halls clear of book bags for good egress in case of fire.

**Technology.** Projects in this thread are related to maintaining and enhancing student access to technology. Examples include additional devices to lower the student-to-device ratio and replacement cycles.

The result looks something like Figure 1 above. This type of presentation helps your data come alive and tell your story. (If you would like to see the entire presentation of data for this school, email me at [jhutchinson@olatheschools.org](mailto:jhutchinson@olatheschools.org).) Remember, it's not enough for you to understand your plan. The goal is to convince others to invest in it. You need a concise, visually pleasing way to summarize all the variables that affect the decision to invest in your plan: growth rates, building capacity, age of improvements, current condition, and so forth.

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### Threading the Needle

Although the red, yellow, and green scale is great for measuring and prioritizing individual data elements or projects, it does not lend itself well to summarizing the data. Your data must be summarized into simple messages. I call those simple messages threads. Threads are larger categories that each project falls into. Threads are woven together to become the fabric of your plan. (Not a bad analogy for an accountant!) The following four threads effectively summarize and communicate your needs:

**Growth.** Projects in this thread are a result of increased student growth. Examples include new facilities and additions. (This is where you need the expertise of a demographer to bring credibility to your growth projections and any recommendations regarding new facilities.)

**Aging facilities.** Projects in this thread are related the maintenance, repair, and equity projects identified during your walk-throughs. Examples include new carpet in classrooms and the addition of a third music room at a middle school to bring equity with other middle schools.

Grouping your hundreds of projects into these four simple threads allows you to meet the golden rule of marketing when rolling your plan out: repeat your simple message a thousand times. External stakeholders can quickly understand these threads. You want to speak to these four threads whenever possible to gain understanding and support for your initiative. If someone wants more, you can steer them to the full CIP. But in the beginning, remember to keep it super simple (my version of KISS).

### Show Me the Money

It should go without saying that the goal of the CIP is not only to document your needs but also to do so in such a way as to tell your story and help you secure funding for the plan. You not only need to quantify how much you believe your projects will cost, you also need to identify the proper type of financing to secure and the timing of the projects.

Not all money is the same. Your project data should guide you in determining the type of financing you should use. Short-term assets should not be purchased with long-term financing. For example, 20-year bonds should not be used to purchase tablets with a 4-year life. You have to match asset life with the term of your financing.

With that being said, sometimes the only way to make progress, especially in providing more technology, is through a bond issue. If your only alternative is to sell bonds, make sure the principal payments in the first

years (years equal to the life of the asset) are equal to or greater than the purchase price of the asset. For example, if you buy \$6 million in tablets (with a useful life of four years) as part of a \$50 million bond initiative, make sure your principal payments in the first four years of the debt schedule repay at least \$6 million. Trust me, if you don't, someone in your community will call you out.

If your CIP becomes support for a bond referendum, another key data point needed is the impact on your tax levy. Will the referendum be a tax or no-tax-increase referendum? Assumptions regarding assessed valuation growth and state aid on bonds (if your state provides this type of aid) will be critical. Once again, I suggest you use a third-party expert's data for such assumptions.

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Finally, another data point you will want to obtain is construction escalation. Construction escalation relates to the increasing cost of construction. If you cost out a new high school but don't build it for four years, I can

almost guarantee you will not have enough funding unless you have factored in the construction escalation. You need to adjust your estimates to reflect the cost escalation that is predicted for the period from when you make your estimate to when you actually pay the cost. *Engineering News-Record's* website provides historical and current construction escalation factors by region ([http://enr.construction.com/economics/current\\_costs/](http://enr.construction.com/economics/current_costs/)).

I realize that there are a lot of ways to approach the development of a capital improvement plan. My five-step process is just one of many. The point is, regardless of the method you use, make sure that you use good supporting data and methodologies throughout to bring credibility and trust to your CIP.

## References

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