

TOOLING UP

Facilities Programming and Planning – An Operational Approach to Facilities Developmentⁱ

By Tom C. Adams and Tony Yankovich

Are you considering new or remodeled facilities? Decisions regarding facilities are crucial, some of the most important ones you will be making. They can maximize productivity, service delivery, cost effectiveness, and when applicable, profit margins. Professional Facilities Programmers know these major facilities decisions are directly related to your ability to deliver products and/or services.

Businesses develop. Mergers take place. Missions increase. New markets open as client rosters swell. Staff size grows; the fleet grows. New mandates impose new requirements that dramatically impact business focus and service delivery options.

“Our facility is too small.”

The way business is done changes. The way services are delivered changes. Strategies change, and the process-related tactical underpinnings to these strategies change. Missions are redefined, and the work force must accomplish more in less time. Global information is readily available in droves, and can dictate new, monumental, and profound business processes.

At the same time, areas within the facilities occupied are reassigned, entire departments are relocated to where room is available, and departments allowed to stay put are tightened up and squeezed in, to make room for new requirements. And it never seems to stop; there is no end to the upheaval, the turmoil, the shuffling around.

“We have completely outgrown our facility.”

If this is beginning to sound familiar, don't be afraid to belly up to the bar; you will

find hundreds of other businessmen hanging out, stuck in the same dilemma.

What you need are new digs. In facilities that do not support your operations, you are most certainly pouring money out onto the floor. Some businesses can afford to pour money out onto the floor. Most can't. None should.

TOOLBOXES?

For decades, facilities have been thought of as giant toolboxes, able to provide shelter and definition – a place to hold the business at hand.

Today this is as wrong as wrong can be. Facilities are **tools**, not toolboxes. They can play a major role in the successes that your business achieves. Like it or not, facilities that are outgrown or outdated can be dictating operations to you – structuring the *tactical* responses to the *strategies* that you have determined will best-support your business.

STRATEGY AND TACTICS

A few years back at playoff time, the coach of the National Football League's Minnesota Vikings was asked how his team was going to beat the vaunted

Dallas Cowboys. His response: “Score more points.”

This rather facetious but nonetheless accurate answer revealed nothing about his team’s intended operations, what *tactics* he was going to employ to achieve victory. Blitzing defenses, stunting, double-teaming the wide outs; trap blocking and misdirection on running plays, short and quick passes – these are the *tactical* operations that he ultimately used to bring down the Cowboys.

The same is true for service delivery organizations tasked with *strategic* goals like serving clients, producing documents, maintaining fleet vehicles, controlling ice and snow, and delivering products to customers. *Strategies* can be defined as mission statements, achievable goals, and sought after aspirations.

Tragedically, many new business facilities are designed today based primarily on strategic goals.

While accurate, these goals reveal little or nothing about the *tactical* operations required for manufacturing products and/or delivering services efficiently and effectively.

There are hundreds and hundreds of tactical operations, and they vary from office to office, branch to branch, division to division, and department to department.

Take for example snow and ice control. The *strategy* might be “clear the streets and parking lots; continue to clear for the duration of the event.”

Dozens of tactical operations go on behind the scenes. If snow and ice control is one of your missions, this partial “issue list” may sound very familiar to you.

- *Salt usage rates*
- *Sand usage rates*
- *Mixing locations*
- *Vehicle/equipment storage*
- *Plow size/types*
- *Blade changing station*
- *Box cleanout*

- *Calcium chloride usage*
- *Brine usage*
- *Lean-to storage option*

Do these tactical considerations have an impact on the way facilities should be designed and constructed? You bet they do. How significant are these issues? One Wisconsin city (population 70,000) reports an average cost of around \$38,000 *for each snow removal episode*. Fact is, cost associated with every one of these listed issues can be minimized through proper facilities design. If measures can be taken to reduce the cost to control ice and snow, why not explore them?

ARCHITECTS

Without a doubt, architects are first class facilities designers, but they don’t necessarily analyze current tactical operations, predict future ones, or translate operational characteristics into design parameters.

Architects look at *strategies*. They generally concede that they have neither the time nor the expertise to collect this kind of detailed information and translate it into facilities design specifications. If strategies become the primary design parameters and not tactics, what can develop is a facility that is prematurely outdated, inefficient, costly to remedy and possibly hazardous.

FACILITIES PROGRAMMING

Enter Facilities Programmers. These professionals look closely and carefully at operations, and translate them into design parameters so that new facilities can be designed by architects to maximize service delivery strengths. By assessing each and every tactical issue, facilities can be developed that match organizational operations, today and into the future.

The Facilities Programmer will be able to incorporate the appropriate adjacencies, make the correct space allocations, and plan for the necessary work area assignments, to make facilities as efficient as possible. In fact, the snow and ice control “issue list” enumerates the very things Facilities Programmers focus on; they have a tremendous impact on operations, which in turn has a tremendous impact on the facilities.

The result is facilities that are vastly more operationally efficient, fine-tuned to match the services you provide or deliver. Mind you, architects are vital to the facilities design process. Facilities Programmers don't replace architects, they precede them. After all, architects benefit from the facilities programming effort. It probably won't surprise you to learn that several highly acclaimed architects now hire professional Facilities Programmers to reduce their costs, and help them design better facilities.

COST SAVINGS AND APPROVAL TO PROCEED

A well conceived, planned and programmed facility will have a tremendous and positive impact on productivity, efficiency, and effectiveness. Designed and built accordingly, your facilities can make active contributions to your operation. If for example the heating and cooling expenses in a new facility will run 22% lower than in the old one, the contributions made by your facilities can be quantified – described in terms of dollars. Facilities Programmers are very familiar with the many, many measurable factors that reveal how your facility does more than just “hold tools”.

Cost savings associated with reduced energy consumption is just one of the

weapons found in the Facility Programmer's arsenal. Imagine delivering a presentation to the Board of Directors armed with information that shows how proposed new facilities can actually pay for themselves in, say, 9 years? Would this not give the powers-that-be a gentle nudge towards “thumbs up”?

Roofs develop leaks, mechanical and electrical systems become expensive to operate, limp along, and frequently breakdown. Older facilities were not designed to take advantage of some of the technological improvements, and are often very expensive to upgrade to accommodate today's heating, ventilating, and air conditioning equipment. A Facilities Programmer can provide you with a “Facilities Condition Report”, and tell you what the cost to update your facility will be *vis-à-vis* replacing it or moving elsewhere.

Facilities Programmers identify the work accomplished and/or the services delivered as a function of the facilities. The size of each area within the facilities is based on this assessment. Staff members can tell the Facilities Programmer what they feel is needed, and the Facilities Programmer will use this information to augment the assessment. Ultimately, specific and general information about the current and proposed facilities are collected without prejudice. Perceived needs give way to actual needs.

THREE EXAMPLES

Here's a business with a fleet of 50 delivery trucks maintained in house. The maintenance program includes a tire management “shop” sized now at 400 square feet (SF). The department head insists that 550SF is essential for the projected facilities.

The Facilities Programmer will examine stock on hand – Are too many tires being stored? Are too few on hand? What are the associated tire shelf lives? How large does the area **need** to be? How can the most effective vertical space utilization be achieved? Should tires be stored on the tread or on the sidewall? Does it matter? What are the clearances needed to accommodate replenishment or to remove tires from a rack? Where should the area be in the facilities plan? What are the recommended adjacencies? Can the supplier store the tires, and deliver them on short notice?

Proposed or potential growth adds depth to this issue. The Department Head projects 10 new delivery trucks might need to be purchased over the next 24-36 months. How will this impact the proposed facilities? Must they necessarily grow? If so, where?

As for tire repair – the Facilities Programmer knows which issues directly relate to facilities. Are employees safe from physical harm? *Really?* Are the most current tools and safety devices available? What does it cost to provide this service? What are the facilities considerations that need to be programmed? Should tire repair be outsourced?

A second example: An Administrative Assistant in Risk Management is located in a workstation sized at 64SF, and an Administrative Assistant in Finance is in a 125SF office. Both work under roughly the same general position description, are paid the same, and are probably located in their current workspace because their predecessor was there. If a facilities change is planned, how should the workspaces be sized? Where should the employees be positioned?

There is a temptation to place these employees in the same configurations they are leaving – the 64SF workstation for one and the 125SF office for the other. Easily done and, unfortunately, often done! But the Facilities Programmer knows that this is inappropriate. “Because we have always done it this way” may be acceptable under some circumstances but a professional Facilities Programmer has a more economical and justifiable plan, based on experience with the profession in question (Administrative Assistants are in cities, counties, and states across the nation), *specifically adjusted according to the work performed*. So if the work accomplished by the Administrative Assistant in Risk Management supports a workstation sized at 80SF, the Facilities Programmer will recommend this and provide the associated justification. The work performed by the other Administrative Assistant may also support an 80SF workstation, but not necessarily. All workspace assignments are addressed individually and in accordance with operations.

A third example: Visitor reception is one of the issues that are carefully addressed by a professional Facilities Programmer. Where should the entrances be located? Should there be a vestibule? On what criteria should the size of the lobby/waiting area be based? Need there be restrooms nearby? Should the receptionist’s workstation be secure? Is surveillance appropriate? Is there a need for a reception counter? How large should it be?

The Facilities Programmer will develop a justified, documented plan for visitor reception and visitor parking, if necessary.

CHALLENGE

Worse than a facility that offers no help is a facility that has built-in inefficiencies, because that facility provides negative assistance; forces the business employees to work harder and often-times longer than necessary to get the job done. If you want to watch morale plummet, place or keep employees in facilities that provide this negative assistance.

Executives, Administrators and Managers are often asked to accomplish their duties in facilities that hinder productivity due to poor or inappropriate design. Developing solutions to these challenges is the Facilities Programmer's forte.

If the office or workstation occupant operates in facilities designed by a Facilities Programmer, she¹ would benefit from the layout in every detail. The ceiling would be the correct height. Doors would be "hung" on the correct wall, open to the correct height and width, and designed to minimize maintenance. Each conference, strategy, file, reception, and storage area would be right-sized and properly positioned according to the business conducted therein. If you want to watch morale soar, place your employees in a facility that supports what they do.

COST MATTERS

Perhaps one of the most powerful services provided by the Facilities Programmer is the initial cost estimate. After all, that first "thumbs up" is very much like pushing the big rock. This is right smack dab in the center of the

critical path for facilities development. And the professionally developed Facilities Programmer's report insures that the initial cost estimate is grounded in the strategic and tactical elements that make up actual operations.

And, while the cost estimates can be continually refined throughout the facilities development process, the Facilities Programmer knows that as long as the operational characteristics

Some examples of Public Sector facilities that have been recently constructed (or are planned for construction) after retaining the services of a Facilities Programmer:

- City of Milwaukee WI – fleet Services Division Facilities
- City of Brentwood CA – Public Works Facilities
- Wyandotte County KS – Public Works Facilities
- City of Yakima WA – Public Works Facilities
- City of Nacogdoches TX – Public Works Facilities
- City of Oxnard CA – Solid Waste and Recycling Facilities
- City of Oxnard CA – Public Works Facilities
- Door County WI – Highway Department Facilities
- City of Rochester Hills MI – Public Services Facilities

do not change dramatically, the initial cost estimate will not increase.

One other benefit - the type of professional service provided by the Facilities Programmer might cost 1% or 1.5% of the estimated cost for the new facilities, *but it can reduce overall A&E costs by as much as 3% - 4%*.

Moreover, Facilities Programmers can provide three additional services: they are often asked to [a] stay on and help select the architect for the project, [b] oversee the actual A&E design, and [c] provide information on how best to obtain the necessary funds for the project.

PROJECTIONS

Facilities Programmers will be able to develop a myriad of tactical information, predicting operations once the new or remodeled facilities are up and running. What exactly will occur inside the new facilities, say, ten years from now? How

¹ No gender preference inferred.

big will the fleet be? What types of vehicles will be featured? How many employees will be on board? What type of installed equipment will be up and running out on the floor? Where will each of the affected organizations need to be located, and adjacent to whom? How will work flow?

And these elements of service delivery can be articulated in terms of square footage, all based on projected operations. Armed with this type of information, Directors, Chief Executive, Operating and Finance Officers can gain a better understanding of the facilities being proposed, what they might cost, how they will enhance productivity and, in most situations, why they often pay for themselves over time.

RELATED PROGRAMMING ISSUES

They can also select a new site, analyze the site selected, capital equipment needs, and any information

management or technology requirements and opportunities, even provide the phasing approach for construction. They can program and plan employee amenities, like lunchrooms, locker rooms, wellness and childcare centers, training facilities, and cafeterias.

FACILITIES - TOOL OR TOOLBOX?

Without question, a tool. And because of the cost of a tool this important, it only makes good sense to program and plan facilities construction with great care. Professional Facilities Programmers will argue that facilities are *the most important tool in any toolbox*.

Stakeholders know the investment is substantial. They deserve the assurance that funds used to design and build these facilities have been spent wisely. Hiring a Facilities Programmer is one sure-fire way to develop new facilities that will run like an efficient and effective well-oiled machine for years to come.

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