



ASSET REINVESTMENT

*A successful approach to
managing and winning
support for deferred
maintenance projects*

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Building Excellence Together

OVERVIEW

Deferred maintenance is one of the most pressing issues facing college and university facility managers today – and as we all know, it’s the least glamorous aspect of campus facilities construction and the hardest to get funded. But maintaining and enhancing your existing facilities is the crux to creating a strong campus aesthetic that attracts students.

A well-conceived facilities improvement plan and construction process can build the case for obtaining the needed funding and backing. KBE Building Corporation, along with Colleges and Universities, has developed a highly viable framework for facilities improvement called “Asset Reinvestment.”

Simply put, Asset Reinvestment is a planning and construction approach that pools together multiple projects to form a single, linear building program that will enhance your campus.

With our approach to the Asset Reinvestment process of developing a high performance team and fostering a collaborative environment, we have been able to plan and perform an extensive scope of work in multiple projects in an organized and professional manner. Our experience has shown us that when a project is appropriately planned, a high-performance project team can construct as much as 9 million dollars worth of projects during a typical summer break of 12 weeks.

PROJECT SUCCESS STORIES

One example of our success has been at one of the country's leading private liberal arts college, Connecticut College, where we have completed over \$53 million in construction work since 2005. Our project team, the owner, design team, and subcontractors has been recognized with numerous awards, including:

Asset Reinvestment 2015:

- International Partnering Institute, Partnered Project of the Year, Sapphire Award for the Boiler Plant Replacement
- Connecticut Associated Builders and Contractors Excellence in Construction Award for Shain Library

Asset Reinvestment 2013:

- International Partnering Institute, Partnered Project of the Year, Ruby Award for the New London Hall Science Center
- Connecticut Building Congress, First Place, New London Hall Science Center

Asset Reinvestment 2012:

- Connecticut Associated Builders and Contractors Excellence in Construction Award for New London Hall Science Center

Asset Reinvestment 2011:

- International Partnering Institute, Partnered Project of the Year, Sapphire Award for the Fitness Center

Asset Reinvestment 2010:

- Connecticut Building Congress Award of Merit for Fitness Center
- Connecticut Association of General Contractors 2010 Build Connecticut Award - Second Place for Fitness Center
- Connecticut Associated Builders and Contractors Excellence in Construction Award for Fitness Center

Asset Reinvestment 2008:

- International Partnering Institute – Ruby Award for Project Partnering, Legacy Project
- Associated General Contractors of Connecticut Private Owner of the Year Award
- Marvin M. Black Excellence in Partnering Award - Special Recognition, National Association of Builders and Contractors

Asset Reinvestment 2007:

- Construction Management Association of America Best Building Project under \$10 million dollars
- Connecticut Associated Builders and Contractors Best Project of 2007 Award

Asset Reinvestment 2006:

- Connecticut Building Congress best project in the small Projects Category (less than \$10M construction cost)

PARTNERING: A CORE COMPONENT OF SUCCESS

Partnering is a collaborative and collegial approach to managing projects through team-building and encouragement rather than the adversarial approach that has long plagued the construction industry. The Partnering concept is slowly entering the building industry, and has been described as an approach that “transforms the traditionally hostile and adversarial relationships between owners and contractors into a more collaborative team relationship.”

Partnering can significantly enhance and improve any Asset Reinvestment Program by building the essential team relationships that are needed to coordinate multiple projects. The Partnering Charter is perhaps the best embodiment of this innovative approach. On a Partnered project, every member of the team - the College (or University), the design teams, the construction manager, the major trades and even major suppliers - voluntarily signed a Partnering Charter at the start of each year’s endeavor. This Charter represented the combined goals of every team member - developed in concert at a full-day project kick-off meeting - and a pledge by each to honor and support one another in achieving those goals.

STRUCTURING THE ASSET REINVESTMENT PROGRAM TO MEET YOUR INSTITUTION'S UNIQUE NEEDS

Scope of Work

Asset Reinvestment can be structured to accommodate as few as 10 projects to as many as several thousand projects, based on the need at hand. The list of projects is typically developed with a consultant experienced in facilities assessment and supported by a construction consultant with expertise in cost estimating, construct-ability reviews, value management and scheduling.

Depending on your needs, an independent consultant could be engaged to review and assess the overall campus condition. The result would be a list of recommended projects that would need to be prioritized by:

- Severity of need;
- The “visibility” of the work and its impact on student recruitment and retention;
- Impact on long-term operating costs; and
- Impact on the College’s ability to safely and efficiently continue to use the facilities, as well as projects that could be deferred to subsequent years without incurring additional repair costs due to delay.

Scheduling of Work

The program can be implemented over the course of one year or multiple years. Depending on the needs of the college or university, the overall size of the program may vary drastically from as little as 10 subprojects to several thousand subprojects. Either way, the approach to the project can be tailored to meet the needs of the end user.

While feasible, a single-year project has its limitations. The project team has little time to develop a strong working relationship and “partnership” mentality because of the associated learning curve dynamics that are inherent when working in a new environment.

A multi-year project is quite different and may achieve the following benefits:

- Subcontractor performance and loyalty to the success of the project are significantly enhanced by the prospect of future work in the subsequent years;
- The benefits of the Partnering Process are realized and become an integral element of the team structure. Typically, newcomers to the Partnering process don’t realize the full value of Partnering until they

have completed a Partnered project. The reason for this is that a major aspect of Partnering is trust and developing an environment of trust is something that is developed over time; and

- The project team develops from a “learning team” into a high performance team.

The following provides a step-by-step primer on the core components and tasks associated with a campus-wide Asset Reinvestment Program.

THE ASSET REINVESTMENT PROCESS

PRE-CONSTRUCTION ACTIVITIES

Perform a Facility Condition Assessment (FCA)

Typically, a consultant specializing in this field is brought in to help the institution and the team evaluate the depth and scope of work required. KBE supports this process with detailed facility evaluation, constructability reviews, cost estimates, and scheduling information, and can assist the owner in engaging the appropriate professional organization.

Develop the project list

The FCA is used to prepare and prioritize a list of projects, with each individual project assessed for cost and scheduling requirements. A Master Project List should be developed, including all budgetary information and scheduling requirements.

Assemble design team

Select a team of designers for the various disciplines. Distribute workload to avoid overwhelming any one designer.

Prepare construction documents

Have designers prepare documents. Hold design coordination meetings engaging all of the stakeholders. These meetings should take place during the various document development phases. Timing should be such that documents are prepared 5 to 6 months prior to construction to allow for bidding, finalization of the project list and preplanning for the execution of the work. It is critical that the stakeholders are involved in the document review process to ensure the designs meet their expectations.

Develop project subcontractor base (bidders list)

Develop a potential bidders list. There should be a minimum of three pre-approved bidders in each discipline. Potential bidders should be pre-qualified. The following are some key attributes necessary for bidder participation:

- Locally based (within one hour) the closer the better from a service standpoint;
- Key senior management will be engaged in the project (preferably an owner of the company);
- Financially strong;
- Appropriate project experience; and
- Self performs work (second tier subcontracting is discouraged due to the potential for disconnection)

Prepare bid packages

During the construction document phase, the bid packages should be in development and finalized. Once the final Construction Documents have been developed, they should be reviewed and approved by the stakeholders. Bid packages should be organized as follows:

- Detailed, clear and concise utilizing a Bidders Responsibility Matrix;
- Organized to allow for project cost tracking;
- Structured to allow for alternate and unit pricing;
- Quantify labor, material costs and potential man hours associated with each project (this helps identify potential discrepancies in the bids and also assists in evaluating the distribution of work amongst the trades); and
- Solicit alternate pricing in scenarios where projects are bundled together

Solicit pricing

Solicit pricing from pre-approved bidders. It is best to plan this so that any pre-proposal walk through can be scheduled during winter break. Organize pricing by project and potential subcontractor. Prepare a project cost matrix identifying complete project costs. Total project costs should be compared to the individual project budgets.

Finalize the project list

Once the potential project costs are developed and compared to the budget, the project list can be finalized.

Award Subcontracts:

Once the project list is finalized, subcontract awards can be made. It is critical to:

- Balance the workload with the subcontractors' capabilities to prevent overloading any subcontractor;
- Award an adequate amount of work to any one subcontractor so that there is an economy of scale; and
- On multi year projects, try to award work to all the key subcontractors to maintain their interest and commitment to the overall project. In other words try to give everyone a piece of the pie.

Building the project schedule

Hold scheduling workshops with the entire project team and develop schedules. Having subcontractor ownership of the schedule is critical for developing subcontractor commitment to meeting the schedule.

The Partnering Process:

The Partnering process is fundamental to developing a team environment. The Partnering process is not a binding legal process, but one where each team member makes a moral commitment to the success of the project. A Partnering Workshop should be held prior to the commencement of construction. Although utilizing a Partnering facilitator to guide the Partnering Workshop is an option, KBE could facilitate the process which should focus on:

- Defining a mission for the project;
- Establishing measures of success for the project;
- Identifying potential project issues and develop action plans;
- Building an environment of trust amongst the team; and
- Measuring progress relative to meeting the project goals.

CONSTRUCTION ACTIVITIES

Contract format

Ideally, your construction partner should be contracted with as a Construction Manager at Risk. A base agreement would be developed and amended for each pre-construction phase and subsequent construction phase. Amendments would be based on cost plus a fee with a Guaranteed Maximum Price.

Project Cost tracking

On projects where there are multiple sub projects, Project cost tracking becomes more and more important. It is essential that project costs are tracked to ensure all project costs are identified. Typically, project costs are tracked as follows:

- General conditions staffing: these costs are tracked as a whole and can be prorated across the projects based on a percentage of the total
- Site Services: these costs are tracked as a whole and can be prorated across the projects based on a percentage of the total; and
- Division 2-16 (trade contractors) costs: These costs are tracked by individual project.

While project cost tracking for projects containing multiple sub- projects can be a complex undertaking, the key is to keep the process as simple as possible while at the same time maintaining the ability to track the costs to a certain project.

For projects of this nature, we track project costs in parallel. We utilize Viewpoint (an accounting system specifically designed for construction)

which views the total project as one. In addition, we track projects in parallel with Excel in much greater detail.

PROJECT ORGANIZATIONAL TOOLS

Bidders Responsibility Matrix

Identifies a scope listing for each project and identifies the responsible subcontractor for each task.

Project Team Responsibility Matrix

Identifies the design professionals, onsite supervision and subcontractors associated with each subproject.

Requisition Backup Matrix

Identifies work completed to date by task code and by subcontractor and by project.

SUMMARY

One of the most challenging aspects of an Asset Reinvestment Program is setting up and organizing the project. On projects where multiple projects are running concurrently, new challenges relative to cost tracking and general project organization will surface that would otherwise not be an issue. The keys to success are:

- Good project organization;
- Early development of construction documents and bidding;
- Early commitment to the subcontractors to allow for appropriate upfront planning; and
- Developing a committed team of professionals committed to the success of the project.