



7 Habits of Highly Effective Project Teams

Boost organization performance, build a competitive advantage, and deliver outstanding projects

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Top facility owners deliver world-class facilities by hiring top talent and improving productivity which, in return, drives increased construction productivity and competitive advantage.

Yet, the steps to achieve and maintain a thriving organization are a little more complex. What are the key components that make for successful projects and thriving organizations?

After 20 years of studying the industry, e-Builder has compiled the 7 most common 'habits' that highly successful, best-in-class organizations deploy to boost organizational performance and yield impressive direct and soft benefits.

Before we outline the seven common habits in depth, it's important to understand the general definition of a habit within the capital construction environment. To paraphrase, famed leadership guru Stephen R. Covey, 'a habit is the intersection of knowing what to do with the skills to do it and the desire to get it done'. In essence, a habit combines inspirational leadership with standard operating procedures and effective training.

Best-in-class facility owners understand this dynamic very well. They realize that it takes more than mere words to achieve a successful project. They have learned that in order to create lasting change within their own teams—and extend that change to construction managers, architects/engineers, and general contractors—they have to define clear processes, train teams on how to follow them and create a desire (incentive) for the team to want to do something differently.

With that in mind, here's an inside look at the top **7 Habits of Highly Effective Project Teams**.



#1: BE PROACTIVE

One of the most valuable habits of best-in-class organizations is the ability to establish and measure key performance 'leading' indicators. Simply put, they take a proactive leadership problem-solving approach, not a reactive approach.

If you're unsure whether you're a proactive or reactive leader, ask yourself:

- Are my projects consistently over budget and/or late?
- Does my unofficial job description include "Fire Fighter" or "Problem Solver"?
- Do I regularly get e-mails marked "urgent" or written with CAPITAL LETTERS?
- Do I start the day with great intentions only to get derailed by 10 AM?
- Do most of my project performance reports focus on last month's data?
- Are there high volumes of RFIs?
- Do I get surprised by change orders?
- Do I use contingency funds early and often?

If you answered yes to any of these questions, then you are likely making at least a few reactive decisions.

There are a number of ways to become more proactive. Best-in-class owners work in a time management quadrant that emphasizes important tasks—not urgent tasks. Urgent activities are a staple of organizations that are constantly in a fire-fighting mode. These are often tasks and activities that are someone else's responsibilities, but given to you to manage. You can often spot these as action items in your court, even though the deadline might be driven by someone other than you.

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Typical 'reactive' lagging indicators include:

- Actual cost versus budget costs
- Actual schedule milestones accomplished
- Quantities installed
- Cash flow to date

Of course, to get to the promised land of working on important, but not urgent items, you have to first complete those tasks activities. Once best-in-class owners have completed as many of urgent tasks as possible, they can begin to plan ahead for future action items.

For example, proactive owners often track and review the following forward-looking leading indicators:

- Estimate to complete (ETC)
- Estimate at completion (EAC)
- Budget at completion (BAC)
- Project risks
- Contingency utilization
- 2-week look ahead
- Cash flow forecast
- Workflow aging & cycle time

They recognize the importance of communication and team dynamics so they ensure there is adequate time for leadership activities. They keep a careful eye on the culture of the project team and look for signs of defensive behaviors, CYA and the over utilization of e-mail. They create time "above the project" in areas including:

- Capital program vision & strategy communication
- Training and development
- Talent management
- New talent recruiting
- New employee on-boarding

Owners do not have to be resigned to always being in fire-fighting mode on their projects. When you have a burning desire (an increase in projects), bring in the knowledge (gap assessment), and the skills (experienced leadership), you can build game-changing habits that can catapult you to become best-in-class.

CASE STUDY

The City of Arlington is the top entertainment, education and industrial employers in Texas.

To support its visitors, residents and business community, the city budgets over \$50 million for construction projects (over 200 active projects annually) every year for infrastructure development and expansion. That money is primarily shared by three departments: Public Works & Transportation, Water Utilities and Parks & Recreation. For years, city program and project managers relied on an outdated mainframe solution built in the 80s. Each of the construction departments—Public Works & Transportation, Water Utilities and Parks &



Recreation—used its own processes and tools for managing projects and workflows. In addition, the mainframe system was costing the City considerable money in software license fees, maintenance and monies allocated specifically for equipment failure. The City took a proactive approach to managing its capital programs by standardizing city-wide processes with the implementation of integrated project controls technology, which unified visibility across departments and streamlined workflows.

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#2: FORECAST COMPLETION

Much of project performance management is focused on what has already happened. In fact, historical data used to be the only way an owner could gain insight into capital program performance.

Anyone who has been in the engineering and construction industry for a while can quickly recall the painful process of waiting for an accounting period to close in order to see how much money was spent on a project. In most cases, the owner was looking at data from one to two months prior.

The inability to obtain project status in a timely manner allows issues in the field to become urgent problems that could have a cost impact or delay a project. The demand for real-time project information is what gave rise to cost management or project accounting. The best cost management software does something no accounting system can do—it tracks and controls risks that could impact project cost as soon as those risks become known.

For example, an RFI can be flagged as having a potential cost impact and correlated to a potential change order or a contingency fund. When this information is shared in real-time, project stakeholders can see what is happening now and look ahead to make better decisions.

Schedule management applications have always worked this way. These applications define a sequence of activities and manage the work status so that project managers can immediately see if productivity is falling behind. In CPM scheduling, there is a practice called the “2-week look ahead” that allows teams to focus on what is happening now and what will happen in the future.

However, as projects became more complex, owners began to see schedule activities that were only 25% complete, but 100% spent on budget. Best-in-class owners of capital programs are keenly aware of this dichotomy. They realize that it's not enough to see schedule or cost performance data in isolation. Both cost and schedule must be combined to see the reality of a project's progress.

If there is only one ‘habit’ you leverage from seven habits outlined in this paper, consider integrating cost and schedule systems. You'll find quickly that integration forms the basis of great forecasts and is proven to help capital program teams focus on the finish line.

CASE STUDY

Inova Healthcare System, Northern Virginia's leading not-for-profit healthcare provider, launched an \$850 million hospital replacement program on one of its campuses. With such a large undertaking, the capital program management team needed to revamp construction administration processes to improve efficiency. For years, the group relied on varied systems and methods from Excel spreadsheets to manual



documentation—all of which were prone to error or getting lost. Inova put in place an integrated project cost control solution to manage, enforce and measure the processes for contract and change order reviews and approvals. All changes are managed within a centralized database allowing the team to address changes quickly. Changes are now tracked at inception, from the moment an action item or request for information is created. As these progress and become potential change orders, they can be tracked and reviewed until they are approved as a formal change order—all within one seamless process.

#3 AUTOMATE TO OPERATE

Best-in-class owners invest their time in high value activities.

Automate to operate reinforces the age old truth that no one has enough time in their day to get everything done. The habit that best-in-class owners of capital projects have figured out is to automate as much of the things that steal their time as possible so that they can reapply their time to the things that directly improve program performance.

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In today's environment, there are two dirty little secrets that tend to steal much more of our time than we care to admit. Project managers spend:

- Too much time crunching numbers: According to several studies including ones conducted by the Project Management Institute, as much as 80% of a project manager's time is spent communicating project status. When speaking with the design team, a project manager needs to discuss the latest cost and schedule work status. The general contractor wants to discuss contract status. The internal management team wants to hear the latest overall status. It's all related but each conversation requires different information. Project



managers often spend a lot of time crunching numbers to enable a productive meeting. The data is shared in a variety of formats from Excel spreadsheets to PowerPoint slides.

- Too much time chasing people down: How many times have you personally walked an emergency change order request all around the office even climbing flights of stairs to get everyone to sign it and approve it? How about a late application for payment that a contractor desperately needs today or they will walk off the job site?

They accomplish this through cycle time reduction. Leading

owners use construction program management software for capital projects designed specifically for owners. Owner-specific management solutions centralize key performance data, eliminating the need to pull data from multiple systems and organizations. These top owners also use integrated business intelligence to automate graphically rich reporting and analysis so any slice of program performance reporting is just a click away.

The best project management information systems (PMIS) offer a way to automate processes like change order requests, request for information, funding approvals and other work processes through a configurable workflow engine that automatically alerts stakeholders to action items and tracks status. This capability slashes cycle times. In fact, some owners have seen 30:1 cycle time reductions in processes such as application for payment. World-class organizations even integrate this process with their accounting systems so no time is wasted.

Employing the automate-to-operate habit makes more time for project leadership, stakeholder integration and, most importantly, family.

build game changing habits that can catapult you to become best-in-class.

CASE STUDY

The Norfolk Department of Public Works Design Division procures and manages design and construction for approximately \$61.1 million in Capital Improvement Program (CIP) projects. These projects include alterations, dredging, development, maintenance, rehabilitation, renovations, and repairs to new and existing City buildings, beaches, bridges, bulkheads, channels, curbs and gutters, infrastructure, parking garages, sidewalks, streets, and streetscapes. In the past, the inspectors, design project managers and construction project managers struggled to find real time information through its conventional spreadsheet-driven project management and disconnected inspection processes.

In July 2015, the agency moved to e-Builder Enterprise project management control solution with cloud-based features and functionality to streamline its design and construction processes. One year later, staff has realized visible benefit across the organization from its vastly improved change orders to inspection reports.

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G. Christian (Chris) Guvernator IV, PE, Senior Projects Manager with the Norfolk Department of Public Works, emphasized, “Our goal is to implement the cloud-based solution is to de-bottleneck our processes – that’s our motto!”

Prior to rolling out e-Builder applications, Guvernator and his team made a point to engage the entire project team especially project managers, construction managers and inspectors. He said, “We spent considerable time with the project manager to incorporate what he or she needs in a daily inspection report. We made sure we had a viable



final product, launched it and provided training on iPads in the same day. Within 24-hours everyone was using it. Not only has this tool dramatically improved our processes, it’s eliminated the need to manage all those varying reports on the city server.”

#4: WIN-WIN & PAY FAST

Best-in-class owners have leveraged the win-win/pay fast habit to save tens of millions and reduce risk exposure on their projects.

Consider that a major source of cost overrun and scope creep on capital projects is change orders—regardless of contracting strategy. It’s a fact that owner-directed change orders (COs) and contractor substantiated change order requests (CORs) can quickly turn small decisions into massive scope and schedule impacts.

While there’s no feasible way to drive all changes out of the design and construction process, there are steps that every

capital program owner can take to reduce the risk.

The win-win & pay fast habit combines two simple strategies that when deployed together create an opportunity to save up to 4% of your capital project budget.

Here is how:

- When starting a capital project, take a leadership position as the owner and get visibility to the estimating and cost management process on your projects.
- As you award the contract (whether CM-at-Risk, GMP, Lump Sum, Design-Build or IPD), include a provision in the contract that allocates buy-out saving on materials and the allocation of subcontractors contingency funds.
- Contractually require that you have visibility to the estimating process and the buyout process. One of the simplest ways to gain this visibility is to have all of your contractors on an owner-provided project management information system.

In this process, contractors fund contingency accounts with direct, hard dollar savings gained through value engineering and material purchases. You may even consider creating an incentive for contractors by offering that a percentage of remaining contingency be distributed to them once the project is complete.

As the owner, you have already set an initial budget for the contract. If the contractor can do things to buy out the job for less, it makes sense for the savings to first hit your contingency fund. Then both you and the contractor will be motivated to keep change orders to a minimum so that you both share in the savings!

Next is delivering a win for the contractors. As you all know, contractors have to pay financing fees for carrying the cost of procured materials until they are reimbursed by the owner through progress payments. The longer an owner takes to get them paid, the more costs they incur and pass back to the owner in overhead. According to statistics released by the Construction Financial Management Association (CFMA), the average time it takes for contractors to get paid is over 52 days. Contracts typically stipulate net days for payment, such as Net 30. Late payments cost the owner and the contractor real money.

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Best-in-class owners have driven time and overhead out of their process for getting contractors paid and are delivering funds in mere days. Most owners can't achieve Net 30 or even consider becoming a Net 10 payer because the process is manual. However, with the adoption of cloud-based construction program management software, an owner can allow contractors to submit an application for payment, automatically route approvals through a workflow engine and send instructions directly to an accounting solution like Lawson, Oracle or SAP and have it direct deposited in a matter of days.

Once the owner has built a reputation for being a fast paying owner, they can attract more contractors to their projects, receive more competitive bids and get the best talent for their money.

To win-win and pay fast, an owner must 1) gain cost visibility through an owner-driven project management system and 2) apply buy-down savings to contingency funds. The benefit is tens of millions of dollars in savings, happy contractors and the opportunity to drive overhead out of capital programs.

Win-win and pay fast: simple, elegant and very, very real.

CASE STUDY

One of the largest not-for-profit health systems in the nation, Memorial Hermann Health System serves Southeast Texas and the greater Houston community through 15 hospitals. The system also operates a number of institutes, specialized care centers and laboratories. The provider's facilities services team handles an active \$2 billion capital construction program with over 400 capital projects currently underway to support the region's population growth.

The Memorial Herman facilities services team processes over 400 invoices per month. In the past, many were paid late because the approval and routing process was cumbersome and lengthy. At one time, over 31% of the project invoices in one month were paid late, which resulted in late fees, tension with vendors, and cash flow issues. As well, the approval process was handled in a similar manner, creating unnecessary work for the project team without providing any real benefits. Memorial Hermann regained control of its payment process by fully automating its invoice approval and payment process allowing the team to proactively approve and prioritize payments. The time to process the average purchase order, which used to take upwards of 60 days, now

takes less than five, with many approvals obtained in less than 2 hours—virtually eliminating the late fee payments. Cash flow has improved and late fees have been reduced, while



simultaneously improving their vendor relationships.

#5: EMPATHIZE, ADAPT & OVERCOME

In the military, soldiers are taught to improvise, adapt and overcome because, as German military strategist Helmuth von Moltke once said, "No battle plan survives contact with the enemy."

Essentially, military leaders know that no plan is perfect. Since capital program management plans are not a life safety issue, the fifth 'habit' borrows from military expertise. Essentially, best-in-class owners empathize, adapt and overcome, especially when it comes to technology-driven process implementation.

A best-in-class owner realizes that the best solution to improve productivity, streamline processes and drive efficiency is going to require some adjustment once it makes it into the field. Therefore, these leaders listen; they ask stakeholders what they need to make their jobs easier and where are the bottlenecks that slow processes. They talk to adjacent stakeholders, including those in accounting and finance, as well as primary suppliers such as architects, construction managers and contractors.

In summary, best-in-class owners seek first to understand before being understood—a fundamental tenet of active listening.

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CASE STUDY

Banner Health, one of the largest non-profit health systems in the United States and the largest private employer in Arizona, averages \$1.6-1.8 billion in active projects (up to 190 active projects at any given time). Prior to implementing an enterprise integrated project controls solution, leadership asked stakeholders what they needed to improve processes and make their lives easier. By far, the biggest problem was that details of each project were getting muddled in outdated spreadsheets and different reporting methods. The healthcare provider adopted an integrated project cost controls solution and then customized it to meet the processes and practices of the team. The shift enabled an efficient cost forecasting process (eliminated the chance of surprise overruns) and helped the provider leverage \$70 million in savings from active projects to fund a new cancer center.

#6: COLLABORATE TO ACCELERATE

Habit #6 builds on #5. Owners must lead the strategic implementation of project management information systems. They must collaborate and engage all stakeholders inside and outside the organization.

Consider that one of the biggest risks to any capital program is change orders. Change orders can wreak havoc on a construction schedule and raise project costs beyond the allocated budget.

Change orders occur from a lack of communication. Too often in the design of a hospital wing or a university facility,

the capital project team forgets to communicate with the end users.

Best-in-class owners are using technology such as building information modeling tools to engage internal stakeholders and end users. Remember, if a picture is worth a thousand words, a model is worth a million. Top owners find a way to make complex models as easy to use as Google Earth so that someone with no design or construction background can engage in the process and contribute—thereby reducing the chance of change orders during construction.

CASE STUDY

Mount Sinai Medical Center in Miami Beach, FL is the largest private, independent, non-profit teaching hospital in South Florida. In 2014, Mount Sinai selected e-Builder to manage their growing capital program which includes the completion of a 40,000 square foot emergency department, new surgical tower and a 750 space employee garage. The organization brought e-Builder onboard to eliminate the paper processes and approvals on most day-to-day operations, email handling of change orders and RFIs, and to consolidate the numerous spreadsheets circulating for weekly reports. After rolling out in 2015, the hospital system has 38 users and the full suite of e-Builder Enterprise up and running. e-Builder's flexibility has allowed the Mount Sinai to successfully automate notification between architects/contractors. This collaboration has reduced the change order approval time from 87 days to 26 days – with the goal of reducing further.

#7: RELENTLESSLY IMPROVE

Continuous improvement is vital to every company's success, regardless of size or market segment.

Stephen Covey calls, it 'sharpening the saw'.

Once they've automated processes to improve collaboration, efficiency and productivity, top owners use all the data to continually improve and identify bottlenecks.

One of the most reliable ways to make sure your company is continuously improving is to apply Six Sigma's DMAIC approach. DMAIC, which stands for Define, Measure, Analyze, Improve and Control, is a data-driven improvement cycle used for improving, optimizing and stabilizing business processes and designs.

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Here's a summary of the five-step DMAIC approach:

- Define the business problem, goal, potential resources, project scope and high-level project timeline.
- Measure current process performance baselines and identify where you are compared to where you want to be.
- Analyze, validate and prioritize select root problem causes identified in the measurement step.
- Improve by identifying, testing and implementing a solution to the problem and create and deploy a detailed implementation plan.
- Control or monitor the improvements to ensure continued and sustainable success.

CASE STUDY

The University of Southern California (USC) Capital Construction & Facilities Management Services group was



tasked with managing a \$1.5 billion Capital Construction Development Program, the largest capital construction program in its history. New projects ranged from \$6K to \$650 million. An audit of engineering and construction skills and systems found a large gap in the group's ability to handle

explosive growth. It was clear that beyond adding staff, the old way was not going to scale to meet their growing needs. The group adopted an integrated project controls system and realized impressive improvements. Project managers were able to triple their productivity—on average, they were each managing around \$3 million manually. By relentlessly improving with a firm commitment to process enhancements, each project manager now manages on average over \$10 million.

For more insight into the 7 Habits of Highly Effective Project Teams visit the e-Builder blog: <https://www.e-builder.net/blog/7-habits-highly-effective-projects-habit-4>