



## Meeting Strategic Objectives

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by Patricia Panchak

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Two words — alignment and transparency — drive the lean transformation at Turner Construction Company, asserts Doug Cooper, the company’s vice president for Lean, Safety, and Active Caring, New York. The international heavy construction company, which built such notable buildings as [Times Square Tower](#) and [World Trade Center Tower 2](#), has used those words — practices really — to ensure everyone from the CEO to their frontline crews understands its strategic objectives and is motivated and able to help it achieve them.

Taking that goal to heart, the company’s New York Business Unit (NYBU), where Cooper is based, launched the effort to adopt lean thinking in 2014. In 2017, the unit started a [Co-Learning Partnership](#) with the Lean Enterprise Institute, which eventually, in 2018, included having the group’s leaders participate in LEI’s Lean Leader Program. The program introduces executive leadership teams to A3 thinking and practices through hands-on learning (the participant tackles a current business problem using the A3 process).

Simultaneously, the group executed workplace improvement projects and developed an internal lean team that gained valuable capability through hands-on practice.

By 2019, with these early lean transformation efforts paying off, the NYBU leaders set out to create a continuously improving management system built on hoshin kanri, an approach to set, plan, and execute on strategic direction, and A3 management and problem-solving practices.

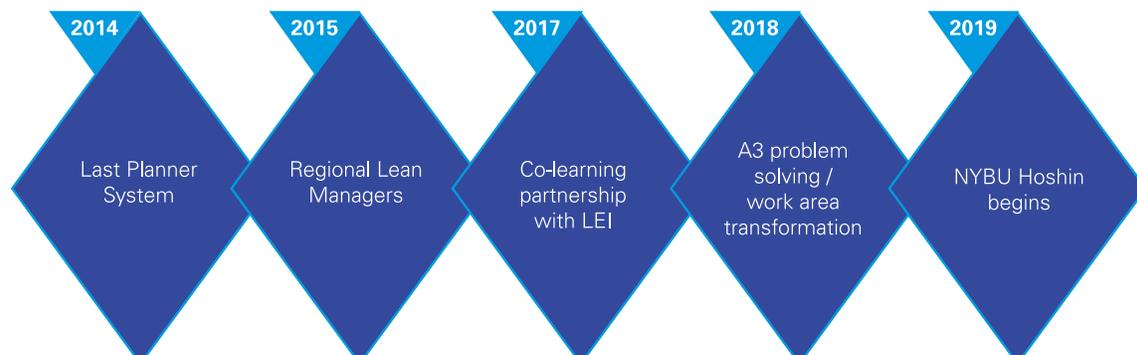
## Creating a Competitive Advantage

Like many companies developing a new strategy, Turner was seeking a way to differentiate itself from competitors and achieve its vision — in its case, to be the No. 1 provider of construction and technical services globally. The company leaders had decided to adopt lean when they “realized that we had to become agile, and we had to be our own worst critics and really look at our processes and understand that we could improve them,” Cooper says. “And we wanted to make sure we focused on realizing our vision.”

The leadership team felt that lean management, with its focus on the behavior of leaders, would be both that differentiator and a way to align everyone in the company toward achieving the vision. For example, Cooper notes that lean leaders are problem-solvers; they don’t react with knee-jerk responses that ultimately fail to resolve issues. Instead, they work with their teams to identify and solve the root cause of problems, so they’re not solving the same problems repeatedly. Adopting those and other lean behaviors and creating a structure that supported them “was something we felt would be that differentiator,” he says.

As critical, the leaders realized that it was their job to help their staff understand how their work processes — and

### Turner’s Lean Journey



improvements — would help the company achieve its strategic objectives. “We talked about motivation, about making sure that people at the point closest to the work are connected with strategic planning,” Cooper explains. “So, when we began our journey with LEI, we wanted to begin building commitment around lean practices. We didn’t want to be just a construction company that was trying to be lean; we wanted to be a lean enterprise that also did construction.”

## Laying the Groundwork for Change

At the New York business unit (NYBU), leadership realized that the change must start with them, reasoning that if the leaders didn’t follow — and model — the new processes, they couldn’t expect their staff to adopt them. So, for the first step, the leadership team worked to build their A3 problem-solving capability with the help of LEI coaching and executive workshops. Then, the leaders at each level cascaded the training through each level of the organization to the frontline staff. Additionally, as they developed A3 problem-solving capability throughout the ranks, they encouraged everyone to take the time to solve problems in their work processes.

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During fast-paced construction projects, strict timelines leave little room for identifying and solving the root cause(s) of problems — and missed deadlines often come with negative consequences. “We wanted to let them know that they could take that pause and honor that structure to be able to do A3 problem-solving, to use lean thinking in addressing problems and in a fact-based structure,”

Cooper explains. He adds that the leadership team felt that team commitment to lean thinking and practices and contributing to corporate objectives would grow as they became more engaged in improving their work.

Once momentum for problem-solving was underway, NYBU leaders directed their attention to strategic planning and, unexpectedly, solving a problem of their own. To determine its current state, the company leaders had gathered the unit’s five general managers together and asked them to write down the strategic priorities for the business unit for the previous year. The seemingly straightforward exercise delivered a gut punch: each leader had a different vision in mind and, presumably, were diligently working toward it, which exposed that, like many companies, strategy execution was a sticking point. More specifically, Cooper notes, we realized: “how can we expect our line staff to be aligned with strategic priorities of the company if the senior leadership with a business unit of the company is not aligned?”

That insight caused the business unit leaders to conclude that “for our future state, we wanted to create clear alignment in communications of the strategic plan and vision from the president and CEO of the company to our line staff,” Cooper recalls. “And we would measure that [by whether] a priority issued by the CEO or the executive committee made it through the leadership.” He adds that the true measure of success would be whether a plumber, carpenter, or electrician on a job site could demonstrate through their work that they knew of the company objectives and how they were expected to contribute.

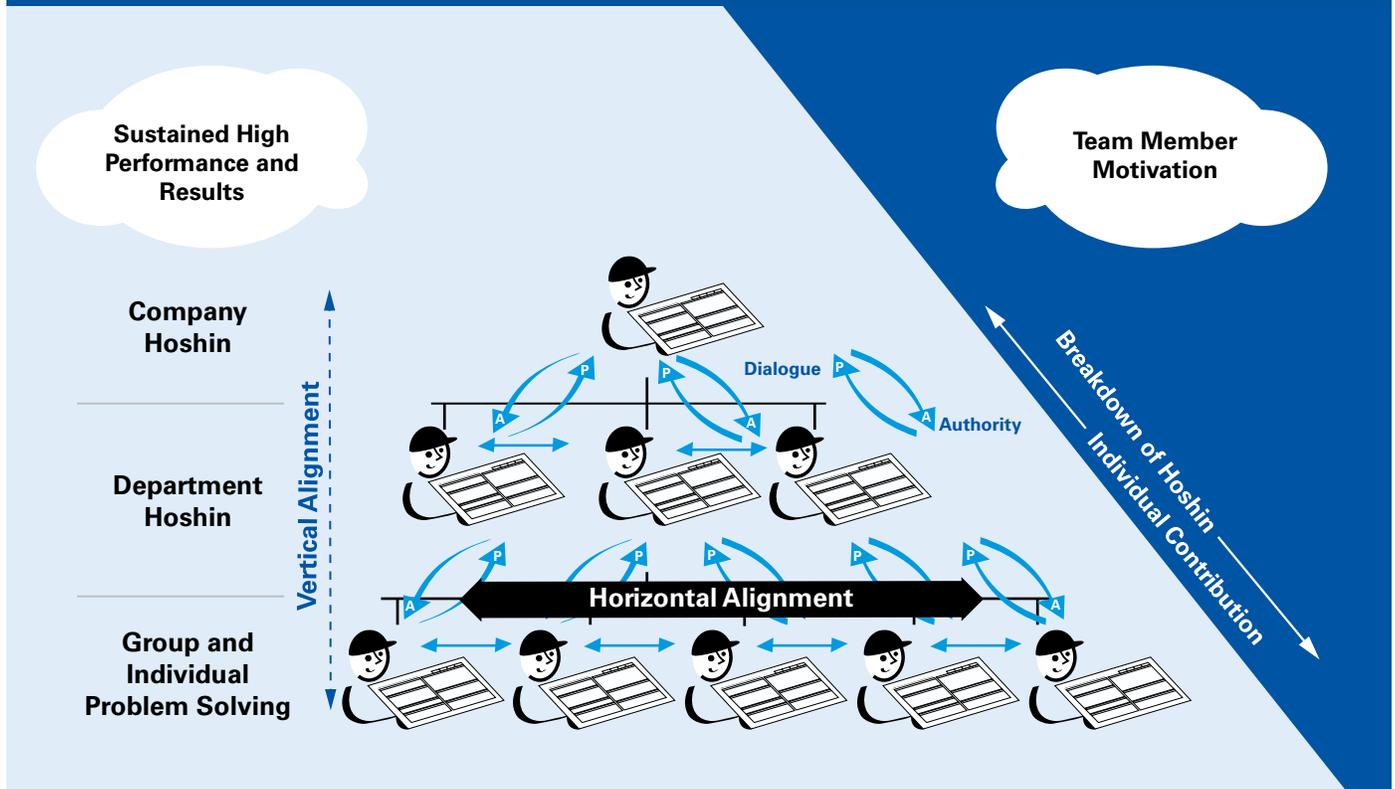
At the same time, Cooper added, business unit leaders wanted to continue empowering the people closest to the work to have the capability to identify and solve problems.

## Creating the Management System

The New York leaders decided to adopt hoshin kanri as its approach to strategy deployment and work to “stitch that together” with the problem-solving practices into a management system.

So, with its first hoshin, Turner New York sought “to create a structure that would allow us to honor our strategic

# Combining Hoshin Kanri and A3 Management



Mark Reich, the LEI senior coach who's guided Turner leadership throughout its lean transformation, explains that hoshin kanri is a strategic framework for building sustained high performance and producing results through structured plan-do-check-act (PDCA) thinking. More specifically, hoshin kanri helps organizations define a structure and standards for establishing and executing strategic initiatives throughout the organization while developing capability through the strategic delegation of responsibility and subsequent self-development.

Significantly, hoshin kanri helps organizations align functions and activities to strategic objectives vertically and horizontally — from the CEO to the front line and across departments. With this alignment, every team member understands how their role contributes to the organization's strategic objectives, giving meaning to their work and motivating them toward higher performance. Accordingly, many organizations use hoshin kanri, supported by continuous improvement, to spur creativity and innovation that creates competitive advantage by aligning their workforce toward specific initiatives targeted to achieve leaps in performance.

A3 management centers problem-solving around the A3 report, a Toyota-pioneered practice of getting the problem, the analysis, the corrective actions, and the action plan down on a single sheet of large (A3) paper, often with the use of graphics. At Toyota, A3 reports have evolved into a standard method for summarizing problem-solving exercises, status reports, and planning exercises like value-stream mapping.

A3 paper is the international term for the paper that is 297 millimeters wide and 420 millimeters long. The closest U.S. paper size is the 11-by-17-inch tabloid sheet.

Combining A3 problem-solving with hoshin kanri helps individuals at each level of the organization — corporate, departmental, work team, and individual — improve their capability to identify and solve problems based on organizational priorities established through hoshin kanri. Additionally, the A3 management process supports staff alignment to achieve objectives through consistent communication between leaders and staff at every level of the organization.

priorities, which at the time was to create the right [work] environment,” Cooper explains. “We wanted to make sure we had the full engagement with all of our employees, all of our team members, all of our trade partners. We wanted to continue to create that lean culture that exhibited the behaviors that we were looking for — continuous improvement, problem-solving, and respect for each other and people we come in contact with — and that we work every day to take that closest to where the work is being done.”

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Turner’s NYBU leaders translated the broad corporate-level goal of “Creating the Right Environment” into a business-unit goal to achieve rigorous alignment in the communication of the strategic plan and vision from the company president and CEO to their frontline staff.

Cooper explains that Turner’s executive leadership hoshin (strategic plan) sets “broad and aspirational” enterprise goals. Then, leaders at each level — senior vice presidents, general managers, and department heads — create hoshin plans specific to their area of responsibility, including objectives and specific activities, that help the company achieve its company-wide objectives.

“It’s like a funnel,” Cooper says. “You’re taking those broad-based strategic priorities, and the idea is to [at each level of

the organization] attach some objectives, activities, targets, and measures that could be implemented to move the ball toward achieving that goal.” With this approach, Turner creates a continuum where frontline tactical objectives support corporate-level strategic ones. Also, the four types of problems are addressed appropriately, handled by those closest to the customers impacted by the issue, with support from others as needed.

“Through that funnel, we’re getting to very finite points — a very narrow and deep consideration of singular problems that can be solved at the job site, the final level, through the use of A3 thinking and problem-solving,” Cooper explains.

### **Understanding the Importance of Alignment and Transparency**

At first glance, Turner’s management structure may not seem much different from traditional management, but it is. Though Turner’s organizational chart appears to be a conventional hierarchy, the company’s leadership practices are fundamentally different. Significantly, management decisions and communications flow not only top-down; they flow top-down and bottom-up. Leaders do not simply send a list of objectives to their direct reports. Instead, each level closely collaborates with the manager they report to and their direct reports to agree on priorities and targets, creating transparency and alignment.

Significantly, with hoshin kanri, “communications” means more than just the traditional approaches: the annual company-wide meeting presentations, newsletters, and the like. Instead, hoshin communication incorporates specific frequent leadership practices that consistently reinforce a focus on organization priorities while continually building everyone’s ability to improve their work processes. Within that framework, A3 management and problem-solving support efforts to remove obstacles or address issues that complicate everyone’s ability to do their part in helping the company achieve its vision.

Another crucial difference from the traditional strategic planning approach is that teams at the gemba — at the worksites closest to the customer — inform the hoshin. So, for example, Turner’s priorities — to create the right environment, achieve full engagement, promote a lean

## Gemba

The Japanese term for “actual place,” often used for the shop floor or any place where value-creating work actually occurs; also spelled genba.

The term often is used to stress that real improvement requires a shop-floor focus based on direct observation of current conditions where work is done. For example, standardized work for a machine operator cannot be written at a desk in the engineering office, but must be defined and revised on the gemba.

from the *Lean Lexicon 5th Edition*

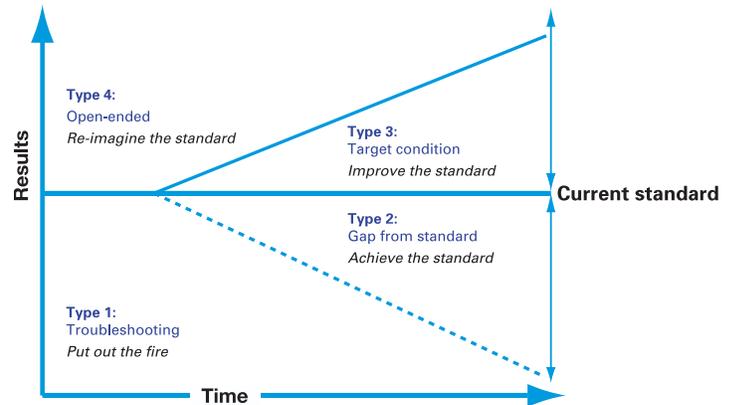
culture, and live injury-free every day — all aim to help frontline workers.

In Turner New York’s case, the senior vice president works with corporate leadership to whom he reports and the general managers to set the business unit’s hoshin, or strategic plan. In turn, each of the general managers works with their department heads to clarify the linkage of their work, ensuring it supports the business unit objectives. Then, the department heads develop and execute the GM-level hoshin, working with their frontline staff to identify and resolve specific problems through structured problem-solving (A3). As a result, leaders at each level align their teams to participate in explicit activities that move the company closer to achieving a strategic objective.

Supporting this organizational structure is a small group of leaders who advise and coach lean practices. For example, a regional lean manager (RLM) helps the senior vice president create and manage the top-down, bottom-up management system. The RLM also facilitates the general managers’ efforts to develop and execute the business-unit-level hoshin with their leadership teams. An LEI Coach supports the RLM and coaches everyone on the management process, which combines hoshin kanri and A3 thinking and practices.

With this organizational structure, “We have consistency, [a plan] that’s driven from the top of the organization through the general managers to their leadership teams and, ultimately, problem-solving at the project level,” Cooper explains.

## The 4 Types of Problems



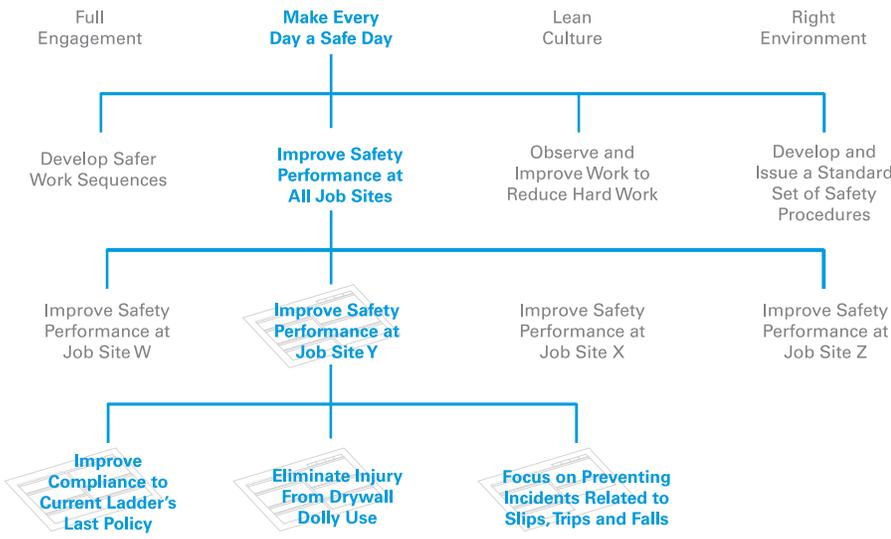
**Type 1:** Troubleshooting, or reactive problem-solving, aims to resolve the immediate symptoms. Though troubleshooting provides relief and rapid problem mitigation, it may fail to get at the root cause, leading to prolonged cycles of firefighting.

**Type 2:** Gap to standard, or structured problem-solving, focuses on problem definition, goal setting, root-cause analysis, countermeasures, checks, standards, and follow-up activities to prevent the problem from recurring by eliminating its underlying causes.

**Type 3:** Target condition, or continuous improvement problem-solving, is used to enhance the existing performance of a stable process or value stream. Rather than responding to one specific problem, it seeks to systematically eliminate waste, overburden, unevenness, and other concerns to deliver superior value or performance toward a target condition.

**Type 4:** Open-ended, or innovative problem solving, leverages creativity, synthesis, and opportunity to identify new problems, solutions, and opportunities not previously recognized. It achieves radical improvement — often a new product, process, system, or value — for the customer well beyond current levels.

## Cascade of Hoshin at Turner Construction



**Turner Strategic Priorities**

**Business Unit Strategic Hoshin**

**General Manager Strategic Hoshin**

**Jobsite A3s**

*The hoshin, or strategic, plans, are developed at each level of the organization through top-down, bottom-up discussions that maintain alignment and transparency of the organization's broad strategic objectives at every level. Such collaboration ensures everyone can focus their efforts on helping the organization achieve its objectives.*

A cadence of monthly meetings, where each level reviews and reports progress, maintains strong alignment and focus on the business unit's — and the company's — top objectives. Turner New York has experimented with various meeting cadences, but, currently, the meetings are held January through October, when next year's hoshin planning commences.

“When we have these meetings, we talk about those A3s — about the problems we’re trying to solve,” Cooper explains. “And problems are not something that’s dreaded within the organization; they are opportunities for us to improve,” he asserts. “They are opportunities for us to challenge our current systems and standards, to ask really, really good probing questions, and to be able to learn collectively and socialize that learning out to the organization.”

### Improving Safety Performance

A closer look into one of the business unit's objectives demonstrates how Turner maintains this top-down, bottom-up alignment. Another of Turner's strategic priorities is “Living Injury-Free Every Day,” which emerged in response to the problem at the gemba. Tradespeople were getting hurt. (Recall that at the “top-of-the-funnel,” these goals are aspirational.) As the goals and plans are translated at each level, from corporate to job sites, they become increasingly specific, often targeted to a particular construction project. Cooper explains that as they become more precise, using

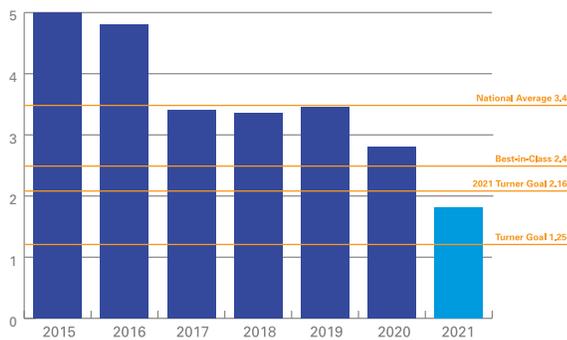
A3 problem-solving, the goals become more actionable and measurable. For example, translating “Living Injury-Free” from the corporate to the business-unit level, the New York SVP and Cooper set a goal to achieve zero on-the-job injuries by improving the situational awareness of everyone entering job sites. In turn, the GMs, working with the SVP and Cooper, set safety-related tactical objectives, deciding to have the frontline crew focus on reinforcing its “Ladders Last” policy and “A-frame Cart” guidelines, among other efforts.

“We were very specific, very purposeful” in choosing projects because, as someone once said, ‘a problem well-stated is a problem half-solved,’” Cooper notes. Once stated, specific activities and countermeasures are taken to resolve the problems by achieving a specific target. The process of selecting projects, setting targets, and determining actions to achieve them is guided by the discipline of A3 problem-solving.

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## New York Business Unit Records Incident Rates



*The New York Business Unit leaders credit improvements in its primary safety measure to their new management system, with hoshin kanri practices keeping everyone focused on safety goals and A3 problem-solving identifying and resolving unsafe situations.*

Turner had implemented “Ladders Last” in May 2011, and the policy had significantly reduced the business unit’s ladder-related safety incidents. However, current data indicated that incidents had started to rise. So, using A3 problem-solving, the team dug into more detailed project data, discovering that project crews were not following the policy consistently for various reasons, including that many didn’t fully understand the policy or its importance to the company. As a result, they weren’t holding themselves accountable to enforce the policy or communicate it to the subcontractors. To address this, “we provided additional training that would consistently build understanding among the team about why the policy is important and make clear that ‘Ladders Last does not mean ladders no,’” Cooper says. Then they set specific measures to track progress and a cadence for follow-ups.

The “A-frame Cart” A3 called for reducing injuries caused by the use of drywall carts, where “we found that we had in excess of over 200 incidents relating to this particular conveyance system,” Cooper says. Further investigation identified when and how cart-related injuries occurred, prompting the team to implement specific countermeasures that crews should take to avoid those situations. “So that resulted in some countermeasures of socializing the hazards that are related to [these carts], about how to safely utilize them,” Cooper explains. He adds that the business unit shared the countermeasures company-wide and, “as a result, we’ve seen a decrease in the number of A-frame cart-related incidents.”

Cooper notes that, taken individually, the results of the frontline A3s don’t achieve 100% of the business unit’s safety goals or corporate’s strategic priority, but they contribute to doing so. “These two A3s, the A-frame Cart and the Ladders Last, improve[d] our performance as related to our ‘building life’ program,” he says.” Further, within a management system where dozens of these tactical frontline efforts are in process, the combined results ultimately help the business unit and the company meet their strategic priorities.

## Understanding the Broader Benefits

Achieving goals and objectives of any sort are significant wins, but for Turner’s NYBU leaders, more critical is the progress the group has made toward building a system that creates and supports transparency and alignment. “Now, we’re solving new problems and have more people using the [problem-solving] structure [of A3s],” Cooper says. “We are using the structure for incident and near-miss review, and we’re holding ourselves accountable for really digging into the root cause of the issues as it relates to what’s happening in our jobs.”

Though Turner can’t claim yet to be a lean company that does construction, Cooper asserts, “we’re working diligently and intentionally toward that goal, and we’re beginning to see fostered commitment to it.”

As for whether practicing lean has created a competitive advantage, Cooper can’t site specific proof. However, he notes: “We’ve had a number of clients that we do a lot of work with say that they respected and appreciated what we’ve been doing.”

“As a matter of fact, recently, we had a client ask us to provide a proposal for a project, and rather than giving them that onerous three-ring binder proposal, they wanted it in an A3 format,” he adds. “They wanted to see what their project would look like as an A3 — there were certain processes, certain problems that they wanted us to address in that fact-based problem-solving structure. So yes, in short, I think lean has a lot to do with what differentiates us.” ■

## Turner's Lean Structure and the LEI Co-Learning Partnership

LEI's engagement with Turner Construction Company began in 2017 when Jim Barrett, Turner's vice president and chief innovation officer, met with LEI Coach Mark Reich and John Shook, an LEI senior advisor, in Boston. Barrett believed that lean had been too narrowly applied in the construction industry, and there was significant untapped potential. He said he wanted Turner to be a leader in expanding its impact.

In response to that leadership pull, Reich led a pilot A3 problem-solving project among the company's senior leadership team in its New York office. New York is the company's largest operation in terms of annual sales. Rather than start on the job site, where LEI typically gets down to work, Reich's intent was to leverage leader engagement and change their mindset. Changing their perspective would help them appreciate the potential and eventually cascade the new thinking and practices down to the building sites.

The pilot project did, indeed, open people's eyes. The participants thought they spent a lot of time on job sites and understood how best to solve problems. The exercise demonstrated how they were mostly just firefighting and not really seeing the work. New York began to share their renewed understandings with the other regional leaders.

Turner has an established lean/continuous improvement program with dedicated resources. Encouraged by the dramatic improvement to safety, steady development of a lean management system, and growth of lean leaders, Turner gave the responsibility of company-wide adoption and implementation of lean to the head of the New York business unit Charlie Murphy. Bob Grimes, vice president

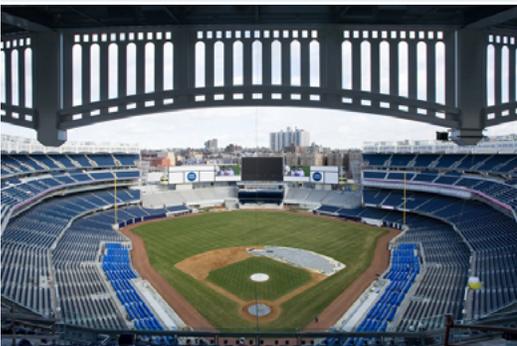
and director of lean, reports to Murphy and coordinates the activity of regional lean leaders. They, in turn, support local lean managers in each office (40-plus across the United States and Canada), who are all well-versed in the Last Planner System™, a production control system developed by the Lean Construction Institute.

Following the pilot project with LEI, Reich met with Turner's CEO and executive leadership team every quarter in 2019. They spent an entire day learning about lean's untapped potential in construction in discussions, touring Herman Miller and Turner job sites. In addition to expanding the executives' thinking, the engagement clarified the business need for embracing lean methodologies more deeply.

At that time, Turner and the entire construction industry were dealing with a labor shortage. Reviewing video recordings of work on the job site during the quarterly lean exercises, company executives began to understand how much productivity could be improved.

This realization prompted them to launch a series of targeted gemba-based improvement projects, mostly on job sites in Texas and Colorado, which is described in the ebook "Respect for People: Making the Job Easier for Workers." Meanwhile, the New York Business Unit embarked on its effort to continue creating a management system based on hoshin kanri and A3 problem-solving, the subject of this case study.

This strategy that Turner is pursuing, with LEI's support, is a significant commitment. Time will tell how much of an impact these efforts have within Turner and the construction industry as a whole.



### About Turner Construction Company:

Turner is a North America-based, international construction services company and is a leading builder in diverse market segments. The company has earned recognition for undertaking large, complex projects (such as Yankee Stadium), fostering innovation, embracing emerging technologies, and making a difference for their clients, employees and community. With a staff of 10,000 employees, the company completes \$15 billion of construction on 1,500 projects each year. Turner offers clients the accessibility and support of a local firm with the stability and resources of a multi-national organization.

## Faculty Highlight

### Mark Reich

Senior Coach and Chief Engineer, Strategy  
Lean Enterprise Institute



During his extensive career, Mark has led lean transformations and coached executives in various companies and business sectors. Clients include GE Appliances and Ingersoll Rand (manufacturers); Michigan Medicine and Mt. Sinai (healthcare systems); Turner Construction; Kroger (retail); Legal Seafood (hospitality); and Microsoft (software).

As LEI's chief engineer, strategy, Mark leads the development of new learning experiences that enhance executives' lean knowledge and capabilities while advancing the lean thinking and practice body of knowledge. Through this work and coaching, he helps executives acquire the mindset and adopt the behaviors that help them more effectively — and respectfully — lead people to achieve organizational objectives.

In coaching many executive teams, Mark guides them through the Lean Leader program, a custom executive learning experience he developed for LEI. Through the Lean Leader program, he helps leaders understand and cultivate a lean problem-solving culture and adopt lean leadership behavior principles and practices.

Since joining LEI in 2011, Mark has served in many roles. As a senior coach, Mark supports LEI's new product development and Co-Learning Partnership program, which assists companies engaged in lean transformation. He also codeveloped and is an instructor for LEI's Hoshin Kanri and Managing to Learn courses, online and in-person. Before being named a senior coach, he spent five years as its chief operating officer.

Before coming to LEI, he spent 23 years at Toyota in Japan and North America, most recently as general manager of the Toyota Production System Support Center (TSSC). As a hands-on GM, Mark directly implemented the Toyota Production System (TPS) or managed its implementation in various industries, including automotive, food, furniture, and healthcare.

Mark also doubled the number of companies supported by TSSC from 20 to 40 and transitioned it from for-profit to nonprofit status, helping it better support its original mission to strengthen North American manufacturing and assist any organization interested in implementing TPS. In addition, he expanded the client base beyond manufacturing to hospitals, schools, low-income food distribution, and nationally prominent nonprofits.

Before TSSC, he was assistant general manager of the corporate strategy division, where he managed and implemented Toyota's North American strategic (hoshin) process, designed jointly with Toyota's Japan headquarters. In addition, he launched efforts to strengthen Toyota Way principles in administrative areas in North America and facilitated the integration of its design and manufacturing organizations.

Mark earned a bachelor's degree from Ohio Wesleyan University and specialized in Japanese studies at Nanzan University. He is fluent in written and spoken Japanese.

## LEI's Co-Learning Partner Program is for leaders looking to transform their enterprise and contribute to the lean thinking and practice body of knowledge. You and your team will closely partner with LEI Coaches in a journey of discovery that will take your organization to the next level.

### **Become a Co-Learning Partner**

Partner with the Lean Enterprise Institute (LEI) to accelerate your lean journey and jointly conduct experiments on the best way to advance your lean transformation. As one of a select group of companies, you'll work closely with LEI thought leaders, such as John Shook, Jim Morgan, and other top-flight LEI Coaches and subject-matter experts.

Within the partnership, LEI Coaches will guide you as you design and evaluate the experiments that will help you discover the best lean approach to address a business problem or achieve breakthrough performance. We don't come in with a cookie-cutter solution. Instead, LEI Coaches bring their decades of lean thinking, practice, and coaching to bear on the business issues you need to address and guide you through discovering — for your organization and in the specific situation — how to resolve it.

By offering targeted, immersive experiences that demonstrate the value of addressing all five dimensions of the Lean Transformation Framework, LEI Coaches ensure you and your team gain an in-depth understanding through crucial guided practice.

### **Join a Learning Group**

LEI's most advanced partners — those who have reached the highest levels of lean thinking and practice — are invited to participate in an LEI facilitated learning group. Open only to those who have and are willing to share advanced lean thinking and practices, this learning opportunity allows organizations and their teams to learn from one another. While participants in the learning groups collectively direct the learning, LEI Coaches facilitate the meetings three to four times per year and share related learning materials.

The meetings are held on-site at a learning group company or in virtual gatherings. The learning groups are organized around a specific lean thinking and practice discipline, industry, business function, and the like.

The longest-running Learning Group is focused on Lean Product and Process Development (LPPD), bringing together partner companies interested in transforming their product, process, and service development systems. Much of this Learning Group's learning was captured in Jim Morgan's and Jeff Liker's *Designing the Future*, which LEI co-published with McGraw Hill in 2019. Who knows, maybe your lean transformation story will become part of an upcoming book published by LEI.

### **Companies we've partnered with**



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## About The Lean Enterprise Institute

The Lean Enterprise Institute, Inc, was founded in 1997 by management expert James P. Womack, PhD, as a nonprofit research, education, publishing, and conferencing company. As part of its mission to advance lean thinking around the world, LEI supports the Lean Global Network ([leanglobal.org](http://leanglobal.org)), the Lean Education Academic Network ([teachinglean.org](http://teachinglean.org)), and the Healthcare Value Network ([healthcarevalueleaders.org](http://healthcarevalueleaders.org)).

## Continue Your Learning

The Lean Enterprise Institute (LEI) offers a wide range of learning resources, all with the practical knowledge you need to sustain a lean transformation:

### Learning Materials

Our plain-language books, workbooks, leadership guides, and training materials reflect the essence of lean thinking — doing. They draw on years of research and real-world experiences from lean transformations in manufacturing and service organizations to provide tools that you can put to work immediately.

### Education

Faculty members with extensive implementation experience teach you actual applications with the case studies, worksheets, formulas, and methodologies you need for implementation. Select from courses that address technical topics, culture change, coaching, senior management's roles, and much more.

### Events

Every March, the Lean Summit explores the latest lean concepts and case studies, presented by executives and implementers. Other events focus on an issue or industry, such as starting a lean transformation or implementing lean in healthcare. Check [lean.org](http://lean.org) for details and to get first notice of these limited-attendance events.

### [lean.org](http://lean.org)

A quick and secure sign-up delivers these online learning resources:

- Thought-leading content delivered monthly to your inbox.
- First notice about LEI events, webinars, and new learning materials.