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2023 AIA Fellowship

Candidate Bernita Beikmann
Organization HKS Inc
Location Dallas, Texas
Chapter AIA Texas Society of Architects;

Category of Nomination

Object 2 > Practice (Technical Advancement)

Summary Statement

Bernita Beikmann is a pioneer in Integrated Project Delivery. An early exemplar of collaborative methodologies, she created new team approaches, sharing her professional knowledge throughout the industry and serving as a national voice for design.

Education

Villanova University, Villanova, Pennsylvania, 1/2 year, Lean Six Sigma Black Belt
Kansas State University, Manhattan, Kansas, 5 years, Bachelor of Architecture, Certificate in Regional and Community Planning

Licensed in:

Texas

Employment

HKS, Inc. June 1996- Present, 26 years

Bernita Beikmann

AIA, NCARB, EDAC, LSSBB

2023 AIA Fellowship Application
Object 2: Practice - Technical Advancement





**ARCHITECTS
INTERIORS
LANDSCAPE
PLANNING**

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September 25, 2022

RK Stewart, FAIA | Chair, 2023 Jury of Fellows
The American Institute of Architects
1735 New York Avenue, NW
Washington, DC 20006-5292

Re: Sponsorship of Bernita Beikmann, AIA for Fellowship; Object 2 – Practice (Technical Advancement)

Dear Chair Stewart and Distinguished Jury:

Bernita Beikmann, AIA is a much-admired leader in Integrated Project Delivery (IPD), and she has changed the industry by improving how buildings are designed and built. She generously shares her knowledge with others, making a noteworthy impact on how architecture is practiced nationally and internationally. I have known Bernita since 1996 – her entire professional career – and I am delighted to sponsor her for Fellowship.

Collaborating in Project Delivery. Bernita led in the development of IPD and the result of her innovative methodology is measurable, significant, and sustained. She is particularly invested in architectural process improvement and was among the first to focus on, and evidence success in, a rigorous statistical approach. For example, her protocols resulted in projects with no 'Requests for Information' or non-owner change orders, an extraordinary feat accomplished on projects that are among the most complex building types: large healthcare facilities. Bernita has done this time and again on many projects, resulting in accelerated design times, decreased delivery costs, and most importantly, increased patient and staff satisfaction.

Sharing Professional Knowledge. Particularly remarkable, rather than treating this hard-won knowledge as proprietary to gain competitive advantage, both she and her firm have worked just as hard to share this knowledge across the profession. Bernita co-wrote three books on IPD, which are considered by many the 'gold standard' for the industry. She shares her valuable wisdom in countless other ways by conducting seminars, writing articles, delivering lectures, and creating blog posts. At a time when evidence-based design is increasingly important, yet other professionals seek to diminish the architect's role in the design-build process, Bernita's achievements are particularly significant and impressive.

Serving as a Design Voice. Bernita advocates from the design side to elevate the leadership role of architects across the design and construction industry. Her integrated, innovative, and collaborative method has transformed the way clients, architects, consultants, and contractors work with one another to deliver the project to the owner. Bernita's influence in this area stretches across the AIA through the Large Firm Roundtable and the AIA/AGC Joint Committee, and beyond to CSI, LEAN, AGC, and other professional societies and trade associations. Her theme for each focuses on the positive result of connectivity and cooperation across disciplines, bolstered by measurable indicators and specific performance data.

I believe one of the simple, but brilliant, aspects of Fellowship is to inspire our 'fellow' professionals by identifying those among us who should be regarded as role models, then holding them high for others to emulate. **Bernita Beikmann, AIA** is the epitome of this ideal and I wholeheartedly endorse her candidacy for elevation to the AIA College of Fellows.

Kind regards,

Duncan T. Fulton III, FAIA – Sponsor for the Nominee | Co-Founder and Chairman Emeritus, GFF Architects

Bernita Beikmann is a pioneer in Integrated Project Delivery. An early exemplar of collaborative methodologies, she created new team approaches, sharing her professional knowledge throughout the industry and serving as a national voice for design.

COLLABORATIVE PROJECT DELIVERY

As a result of her early focus on Integrated Project Delivery (IPD), Bernita has ‘moved the needle’ to escalate project performance across the design and construction industry. Collaborative delivery requires all project participants – owners, designers, and constructors – to work toward common, value-driven goals. Integrated Project Delivery extends that by contractually binding the project team to these goals. Bernita’s built portfolio, as executed through collaborative delivery, numbers in excess of 60 significant national and international projects. An unprecedented twelve of these have official integrated contracts, where all signatories mutually and formally agree to the methodology.

Bernita coaches project teams on Integrated Project Delivery, not only as the lead on teams but also alongside construction leaders, teaching them through her methods. She has shown the design and construction industry how to truly maximize the potential that collaborative design and delivery brings to projects and communities, offering increased value to owners and end users by optimizing how multi-disciplinary teams work together.

SHARING PROFESSIONAL KNOWLEDGE

Bernita is recognized as the leading educator of Integrated Project Delivery in the design realm and continually advocates for more progressive practices in the design and construction industry. A certified instructor for the Lean Construction Institute (LCI), Bernita created the design-dedicated Lean Six Sigma curriculum that maximizes the value of the design profession. In 2015, Bernita received the Chairman’s Award for furthering LCI’s mission of transforming design and construction through Lean tools and techniques. (In Bernita’s case, those ‘tools’ and ‘techniques’ were her own!) In addition to her scholarly contributions, Bernita held various leadership roles on the Lean Construction Institute’s Board of Directors at the national level and supported her state and local chapters as well.

Perhaps most notable is her co-authorship of three major LCI publications: *Transforming Design and Construction: A Framework for Change* and *Target Value Delivery – Practitioner Guidebook to Implementation*, both published in 2015; and *Don’t Conform, Transform*, published in 2018. These books are the incontrovertible guides to Integrated Project Delivery and have steered innumerable firms and practitioners toward successful outcomes in their own forays into collaborative delivery and IPD.

SERVING AS A DESIGN VOICE

As the voice for design in the construction industry, Bernita advocates for the value of design in the built world across multiple disciplines within and well beyond the construction industry. She has coached full project teams and shared knowledge through numerous conferences, speaking engagements, articles, and book collaborations. More specifically, Bernita promoted improved delivery through the AIA/AGC Joint Committee, a national cooperative group representing the American Institute of Architects and the Associated General Contractors of America. Her work brought enhanced empathy and understanding between architects and constructors, which led to elevated service to clients through enhanced relationships.

Through her varied intellectual works and her volunteer service, Bernita has educated thousands of architects, interior designers, engineers, contractors, and trade sub-contractors in methods that have proven to create better quality in built projects and provide more value to clients.

Section 2.1 | Significant Work | Notable Projects

Background

By breaking down traditional barriers and asking questions like, “How can we do this better? What are our success metrics? How can architecture bring value to this facility?” Bernita has built a strong reputation as a Lean design advocate. Her passion for these principles, coupled with furthering her education, has advanced her position and inspired many organizations and companies to implement Lean design. Bernita focuses her team’s efforts on customer value, evaluating

and improving the process with every step throughout design and construction. She assists clients with value stream mapping to support efficient and value-driven operation of their facilities. Bernita facilitates Pull Planning efforts, target value design, documentation, and problem solving, working with project teams to improve processes within the firm and across all projects.

“How renovation and construction projects for Texas Scottish Rite Hospital for Children has changed for the better over the course of the past 10 years is tied directly to the partnership established with Ms. Beikmann.”

~ Don Katz | Vice President of Facilities & Process Design
Texas Scottish Rite Hospital for Children

Our Lady of the Lake Children’s Hospital | Baton Rouge, Louisiana



Project Information

390,000 sf, 120-bed children’s acute care hospital and 95,000 sf medical office building

- › Lean Project Delivery
- › Completed in 2019

Role

Bernita led the education for the design and construction team on this project for Lean Design and Lean Project Delivery.

Outcomes

- Improved patient experience
- Finished ahead of schedule
- Additional program at no cost
- Innovative and flexible mechanical solutions

Texas Scottish Rite Hospital for Children–North Campus | Frisco, Texas | Exhibit 3.4



Project Information

345,000 sf of new construction of sports clinics, orthopedic clinics, conference center, and sports fields

- › Lean Project Delivery
- › Lean Design Methods
- › Completed in 2018

Role

As Principal in Charge, Bernita led the design team and the education of the design and construction team in Lean Delivery throughout the project.

Outcomes

- Delivered more program for owner’s budget
- Improved operations of departments using Lean principles
- Decreased energy use compared to similar facilities
- Increased team accountability in co-located setting

Akron Children's Hospital Kay Jewelers Pavilion

Akron, Ohio | Exhibit 3.2



Project Information

368,000 sf expansion with NICU, high-risk OB program, emergency department, and outpatient surgery

- › Integrated Project Delivery Contract
- › Lean Design Methods
- › Completed in 2015

Role

Bernita led the education of the over 300 member design and construction team in Lean practices and Integrated Project Delivery.

Outcomes

- Saved \$44M from original project budget
- Increased patient satisfaction by 67 points
- Project completed 54 days early
- Reduced greenhouse gases by 48.5%
- LEED Gold Certification
- Multiple Design and Research Awards

Riley Hospital for Children at IU Health Simon Family Tower

Indianapolis, Indiana | Exhibit 3.3



Project Information

360,000 sf, 10-story, 300-bed inpatient tower including an emergency department, surgery, and radiology

- › Integrated Project Delivery Contract
- › Lean Design Methods
- › Completed in 2014

Role

Bernita led the design team, and as the IPD industry expert, led education of Lean and how to work within an Integrated Project Delivery contract for the design and construction team.

Outcomes

- Increased patient satisfaction by 67%
- No RFIs or non-owner change orders
- LEED Silver Certification
- Added scope and equipment at no additional cost

Tradition Medical Center St. Lucie, Florida



Project Information

200,000 sf, six-story, 90 bed hospital expandable to 198 beds

- › Integrated Project Delivery
- › Completed in 2013

Role

Bernita convinced the client to consider Integrated Project Delivery during an economic recession and led the education for the design and construction team.

Outcomes

- Uses 43% less light energy than comparable hospitals
- 83% of construction waste diverted from landfill
- LEED Gold Certification
- Design Awards

The George Washington University Hospital Surgery Expansion | Washington, D.C. | Exhibit 3.5



Project Information

25,000 sf surgery expansion and renovation

- › Integrated Project Delivery Contract
- › Lean Design Methods
- › Completed in 2011

Role

Bernita was the Project Architect and led the design and construction team in education of Lean and Integrated Project Delivery.

Outcomes

- Decreased construction costs by 20%
- Reduced construction schedule by 50%
- No RFIs on project
- Scope was added to project
- Maintained hospital operations through construction

Texoma Medical Center | Denison, Texas | Exhibit 3.6



Project Information

369,000 sf eight-story, 159-bed replacement hospital

- › Lean Project Delivery
- › Completed in 2010

Role

Bernita was the Project Architect and this was the first Lean Project Delivery project for her firm, the owner, and all project participants.

Outcomes

- Decreased project schedule by four months
- \$7M in value adds without added costs
- No non-owner change orders
- Team earned \$1.7M in innovation bonus

The Arena at ESPN Wide World of Sports | Lake Buena Vista, Florida



Project Information

300,000 sf multi-purpose sports venue with flexible configurations, the first of its type for competitive cheering competitions

- › Integrated Project Delivery
- › Completed in 2017

Role

Bernita led the education of the design and construction team in Integrated Project Delivery.

Outcomes

- Flexibility for multiple uses beyond scope
- Delivered on time within owners budget
- Increased usability of venue without budget increase

Children's Medical Center Dallas D9 & D10 Bed Unit Build-out Dallas, Texas



Project Information

48,000 sf build-out of two floors of pulmonary and neuroscience beds

- › Lean Project Delivery
- › Completed in 2012

Role

Bernita led the education for the design and construction team on this project for Lean Design and Lean Project Delivery.

Outcomes

- Met aggressive 11 month schedule
- Saved \$2M
- Lean design created flexible spaces
- Increased patient and staff satisfaction

Moncrief Cancer Center Ft Worth, Texas



Project Information

65,000 sf administrative office building with community and education space and 90 seat auditorium

- › Lean Project Delivery
- › Completed in 2012

Role

Bernita led the education of the design and construction team in Lean principles to deliver this project for the constrained budget during the recession.

Outcomes

- Winner of multiple design awards
- Responds to community needs
- Flexible for multiple uses beyond original scope
- Designed with energy conserving materials and systems

Cook Children's Medical Center Professional Office Building and Garage Ft Worth, Texas



Project Information

120,000 sf, five-story office building and 460-car parking garage

- › Lean Project Delivery
- › Completed in 2013

Role

Bernita led the education of the design and construction team in Lean Project Delivery.

Outcomes

- Eliminated rework with Big Room setting
- Completed six weeks ahead of schedule
- Completed project under budget
- Designed with 70% collaborative flex space

Section 2.1 | Significant Work | Leadership and Involvement

“For the many years I have known Bernita, we have worked alongside each other through the not-for-profit Lean Construction Institute. Bernita has donated time to host many events, teach and train individuals and teams, speak to organizations, and develop teaching materials to be shared freely and openly.”

~ Bill Seed | Senior Vice President, Facility Design and Construction | Jackson Health System

Lean Six Sigma Yellow Belt Program Exhibit 3.7



Project Information

Lean Six Sigma Yellow Belt certificate program curated specifically for design professionals.

› Completed in 2017

Role

Bernita created this education program using knowledge from her Lean Six Sigma Black Belt, industry methods and activities developed during construction projects, and new content specifically for this audience.

Outcomes

- Two day workshop with certification
- Customized program for designers
- Taught to over 150 people nationwide with future classes planned
- Enhances advancement and voice in the industry
- Shared with other organizations to develop design content for their use

LCI Transformation Books Exhibit 3.8



Project Information

Books on transforming design and construction

› Completed in 2015, 2016, 2017

Role

Bernita was the voice of design in this collaboration of industry experts on Lean Delivery, used as international education guidebooks of how to do Lean and IPD Delivery.

Outcomes

- Current 'how to' books of Lean and IPD
- Thousands of books sold in the industry
- Collaborated with over 30 industry leaders
- Sold in industry bookstores, Amazon, and featured in Goodread

TERMS DEFINED

Lean Six Sigma is a team-focused managerial approach that seeks to improve performance by eliminating waste and errors. Collaborative Delivery identified specifically in this submission as **Lean Delivery** or **Integrated Project Delivery (IPD)** uses Lean methodology to integrate people, systems, business structures, and practices into a process that collaboratively harnesses the talents and insights of all participants to optimize project results, increase value to the owner, reduce waste,

and maximize efficiency through all phases of design, fabrication, and construction. **Integrated Project Delivery (IPD)** uses an Integrated Form of Agreement as the contracting method, which puts individual profits at risk based on the performance of the entire team, providing enhanced results. **Lean Project Delivery** uses Lean methodology, focusing on elimination of waste and errors, in design and construction with more traditional contract types.



Lean Construction Institute

The Lean Construction Institute (LCI) is an international non-profit organization that operates as a catalyst to transform the design and construction industry through lean project delivery. The LCI and the AIA partner in events and education. The AIA holds a seat on the LCI Board of Directors.

2021–2022	Lean Design Award Co-Chair
2020–2022	Member, Lean In Design Forum Committee
2020–2022	LCI Board of Directors
2020	LCI - AIA Design Forum Committee
2020	LCI Board of Directors - Auditing Chair
2020	LCI Finance Committee
2019	LCI Board of Directors, Chair
2019	LCI - AIA Design Forum Committee
2018	LCI Board of Directors, Vice Chair
2018	LCI - AIA Design Forum Committee
2017	LCI - AIA Design Forum Committee
2014	LCI Congress Committee
2010–2013	Core Group Founding Member, LCI Dallas-Fort Worth Chapter
2013	LCI Congress Committee
2012	LCI Congress Committee
2009–Present	Member, Lean Construction Institute





American Institute of Architects

2021–2022 Member, AIA Large Firm Roundtable
Chief Operating Officers Committee

2017–2020 Member, LCI - AIA Design Forum National Committee

2014–2018 Member, AIA/AGC Joint Committee

Worked with AIA and AGC (Associated General Contractors of America) national industry leaders to develop an empathy program for designers and constructors.

Reached out to the academic community about teaching design and construction collaboration at universities.



Community Leadership

Bernita has led and participated in many community organizations initially because of design expertise and ultimately leading to leadership positions within the organizations:

2022 Executive Women’s Roundtable | Dallas Regional Chamber of Commerce

2021–2022 Dallas Lutheran School “Arise and Build” Public Campaign, Chair

2016–2022 Our Redeemer Lutheran School, Chairman of Board

2009–2022 Our Redeemer Lutheran School, Board Member

2006–2013 East Dallas Developmental Center (EDDC), Board of Directors

2006–2009 East Dallas Developmental Center (EDDC), President

Work Experience

Bernita Beikmann has spent the bulk of her professional career at international firm HKS, focused on technical advancements. She is a successful and recognized leader not only within the firm but also across the profession. Bernita has served in a number of positions at HKS, culminating in Executive Vice President and Chief Process Officer, which she has held since 2019.

The role of design in the built environment has become challenged because of external forces driving constant change. As Chief Process Officer, Bernita leads initiatives requiring internal change, whether that

is improving an existing process or introducing a new way to produce work. She reports to the CEO and works directly with other top firm leaders, including the Chief Design Officer and Chief Technology Officer, to develop strategies to improve project performance.

Bernita is responsible for business process management strategy and objectives, overseeing the changes required to provide innovative solutions to complex architectural problems. She and her team develop, document, and introduce process improvements for HKS and monitor compliance.

“Bernita is a leading advocate to the industry through her practice; convincing other design teams that the practice of design, when integrated with the build team, can drive significant value, reduce waste, and improve outcomes measurably.”

~ Bill Seed | Senior Vice President Facility Design and Construction | Jackson Health System



HKS Leadership

2019	Chief Process Officer
2018	Executive Vice President, Board of Directors
2017	Management Council
2016	Advisory Council
2016	Director of Operations for Health
2015	Promotions Committee
2014	Director of Lean Strategy
2014	Principal and Shareholder

Professional Education

Bachelor of Architecture | Kansas State University (KSU)
Certificate in Regional and Community Planning | KSU

Certifications and Designations

Licensed Architect - Texas
NCARB (National Council of Architectural Registration Boards)
EDAC (Evidence-based Design Accrediation and Certification)
LSSBB (Lean Six Sigma Black Belt)
LSSGB (Lean Six Sigma Green Belt)

Section 2.1 | Significant Work | Speaking Engagements

“Bernita leads in a very public way. I have had the opportunity over the years to listen to Bernita present several times at various conferences. I especially appreciate the candor she brings to her presentations and the tone with which she interacts with audience members. I regard these traits as those of an exemplary role model, one who shares rich experiences, not for her own glory, but to model the behavior she believes is critical to the future of our industry.”

~ Romano Nickerson, AIA | Principal | Boulder Associates

NATIONAL / INTERNATIONAL CONFERENCES



2022 **“Using Lean to Balance Priorities and Drive Design”** | LCI/AIA/P2SL Lean in Design Forum | *Phoenix, Arizona*
Delivery, Voice: Methods to drive design value into projects using Target Value Delivery

2022 **“How Architects and Engineers are successfully Using Last Planner”** | The Last Planner System Conference | *Virtual*
Education: Successful methods to use Last Planner in Design

2021 **“Building Culture in a Hybrid World”** | LCI Congress | *Phoenix, Arizona*
Delivery: How to maintain collaborative culture when you cannot be in the same room

2021 **“Rebecca Snelling and Bernita Beikmann: The Queens of Lean”** | The Lean Construction Blog’s Podcast
Delivery: Impact of collaborative delivery on projects and personal approach to projects

2021 **“Building Culture in a Hybrid World”** | LCI/AIA/P2SL Lean in Design Forum | *Virtual*
Delivery: How to maintain collaborative culture when you cannot be in the same room

2020 **“Building High Performing Teams”** | LCI/AIA/P2SL Lean In Design Forum | *Dallas, Texas*
Education: Tips on building collaborative teams

2020 **“All Things Lean”** | Construction Management Association of America Focus 2.0 | *San Antonio, Texas*
Voice: Represented design point of view

2019 **“Redefining Leadership for the Future”** | Design Futures Council | *Cambridge, Massachusetts*
Voice: Spoke about the role of leadership in design

2019 **“National Update”** | LCI Congress | *Fort Worth, Texas*
Delivery, Education, Voice: What LCI did in 2019 as reported to over 1500 attendees

2019 **“Integrating Evidence Based Design and Lean for Better Project Outcome”** | LCI Congress | *Fort Worth, Texas*
Delivery, Voice: The connection between Lean and EBD, and how integrating both can project more value



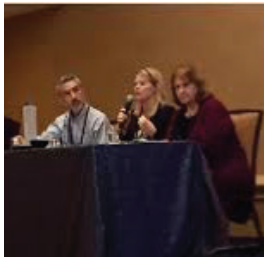
Section 2.1 | Significant Work | Speaking Engagements



- 2019 **“Why Integrated Project Delivery is the Future: Less Risk, More Value, Better Design”** | Victor O Schinnerer & Company Large Firm Conference | *Denver, Colorado*
Delivery, Voice: IPD in design
- 2019 **“Lessons Learned from the Big Room”** | LCI/AIA/P2SL Lean In Design Forum | *Chicago, Illinois*
Delivery, Education, Voice: Education and lessons learned about collaborative Project Delivery in a Big Room Setting and what that means for designers
- 2018 **“National Update”** | LCI Congress | *Orlando, Florida*
Delivery, Education, Voice: What LCI did in 2018 as reported to over 1,500 attendees
- 2018 **Managing Change in Your Organization** | LCI/AIA/P2SL Lean In Design Forum | *Chicago, Illinois*
Education: Managing organizational change
- 2018 **“Evidence Based Design Journal Club - A Value Analysis of Lean Processes in Target Value Design and Integrated Project Delivery”** | International Podcast
Delivery, Education, Voice: Research study on IPD project
- 2017 **“Target Value Design: Working with Partners and Delivering More Value”** | AIA Conference on Architecture | *Orlando, Florida*
Delivery, Education, Voice: How working collaboratively with constructors provides more design value
- 2017 **“When Life Gives You Lemons: Adjusting Your Way to a Lemon Drop”** | LCI Congress | *Anaheim, California*
Education, Delivery, Voice: Facilitation techniques for project teams
- 2017 **“Part 2 of the Cultural Transformation: The Journey Continues”** | LCI/AIA Lean In Design Forum | *Chicago, Illinois*
Delivery: How to change your organization for collaborative delivery
- 2017 **“Akron Children’s Hospital’s Blueprint to Exceed Patient and Staff Expectations”** | Healthcare Design Conference | *Orlando, Florida*
Delivery, Voice: represented design point of view on Integrated Project Delivery conversation
- 2016 **“Understanding the Causes of Latent Decision Making and Developing a Culture Which Puts Authority in the Room”** | IPD Conference | *San Francisco, California*
Delivery, Education, Voice: Helping owners make decisions
- 2016 **“Architects are from Venus, Constructors are from Mars”** | Healthcare Design Conference | *Houston, Texas*
Voice: Improving collaboration between architects and contractors
- 2016 **“Teaching Lean from a Different Angle: Tools and Tricks of Facilitation”** | LCI Congress | *Chicago, Illinois*
Education: Facilitation techniques for team education



Section 2.1 | Significant Work | Speaking Engagements



- 2015 **“Lean Design”** | American Institute of Constructors Annual Forum | *Fort Worth, Texas*
Voice: Improving collaboration between architects and contractors
- 2015 **“The Evolving Use of Lean in Healthcare Design and Construction”** | Colliers International Healthcare Conference | *Boston, Massachusetts*
Delivery, Voice: How to work more collaboratively with constructors in the health sector
- 2015 **“Life Hacks: Improving Your Life using Lean” Panelist** | LCI National Congress | *Boston, Massachusetts*
Education: How to use Lean Six Sigma in your personal life
- 2014 **“Company Lean Transformation”** | LCI National Congress | *San Francisco, California*
Education: How HKS is transforming how they work
- 2013 **“We’ve been doing this for years”** | LCI/AIA/CURT Owners Forum | *Colorado Springs, Colorado*
Delivery, Voice: Collaborative delivery
- 2013 **Event Co-Emcee and Organizer** | LCI National Congress | *Dallas, Texas*
Delivery, Education: Organized and led a conference with over 700 attendees
- 2013 **“Lessons in Complicated Connections”** | LCI/AIA/P2SL Lean Design Forum | *San Francisco, CA*
Delivery, Voice: How to connect design and construction teams to better outcomes
- 2012 **“Why is Lean Management Important to Health”** | International Summit & Exposition on Health Facility Planning, Design & Construction | *Phoenix, Arizona*
Education: Impacts of lean delivery on operations
- 2012 **“12 Meeting Facilitation Techniques to Improve Healthcare Design and Construction”** | International Group for Lean Construction-LCI Academic Forum | *San Diego, California*
Education: Facilitation techniques for meetings
- 2012 **State of the Union** | LCI DFW | *Dallas, Texas*
Education: Progress of LCI in design and construction industry
- 2012 **“Lean Education”** | LCI National Congress | *Washington, DC*
Education: Facilitation and education techniques for design firms
- 2011 **“Redesigning the Design Process”** | LCI National Congress | *Pasadena, California*
Delivery: How the design process was changed to be more collaborative, flow better, and bring more value
- 2010 **“Texoma Medical Center-Lean Story”** | Lean Healthcare Owner Forum | *San Francisco, California*
Delivery, Voice: Represented Design team on impact of Lean on project



STATE/ LOCAL CONFERENCES

- 2016 **Lean Healthcare Panelist** | CSI Local Meeting | *Phoenix, Arizona*
Education: General lean education for design and construction
- 2015 **“JOIN US: Life Hacks – Improving Your Life Using Lean”** | Broadcast from HKS, Inc. | *Dallas, Texas*
Education: Techniques and strategies for incorporating lean into everyday life
- 2015 **“Lean Transformations”** | Disney ILPD Summit | *Los Angeles, California*
Delivery, Education: Transforming a design firm to be more collaborative
- 2015 **Emerging Leaders Program** | AIA Dallas | *Dallas, Texas*
Education: Speaking to young leaders about design
- 2015 **“Owners Panel on IPD”** | LCI DFW Chapter | *Dallas, Texas*
Education: How Integrated Project Delivery delivers owners more value for their money
- 2013 **“IPD at Akron Children’s Hospital”** | Texas A&M University College of Architecture | *College Station, Texas*
Delivery, Education: Presentation to College of Architecture and Construction Science at Texas A&M University
- 2012 **“Lean and Integrated Project Delivery”** | Dallas CSI Meeting | *Dallas, Texas*
Education, Delivery: Education on basics of collaborative delivery of projects
- 2012 **“A Design Approach to Lean Process Improvement”** | LCI-CSI-AIA Meeting | *Lehigh Valley, Pennsylvania*
Delivery: Changing design to be more collaborative
- 2012 **“Using Lean Management in Design and Construction”** | Healthcare Facilities Design Conference | *Dallas, Texas*
Education: Lean affect on Health Operations
- 2011 **“Extreme Collaboration”** | LCI DFW | *Dallas, Texas*
Education: Benefits of collaborative project delivery
- 2011 **“Integrated Project Delivery”** | Leadership in Capital Projects | *Austin, Texas*
Delivery: Discussion of benefits of collaborative delivery
- 2011 **“Value Stream Mapping”** with Mark Graban | LCI DFW | *Dallas, Texas*
Education: Presentation with industry expert on using value stream mapping in design
- 2011 **AIA Emerging Leaders, Panelist** | *Dallas, Texas*
Education: Discussion of the changes to the design profession

Section 2.1 | Significant Work | Speaking Engagements

- 2011 **“Target Value Design in the Beginning”** | LCI Ohio Valley TVD Conference | *Ohio*
Delivery, Education: How Target Value Design practices deliver owners more value
- 2011 **“Riley Hospital for Children”** | Midwest Healthcare Engineering Conference | *Indianapolis, Indiana*
Delivery: Case study on Integrated Project Delivery and its benefits
- 2011 **“Lean Design”** | Structural Engineers Association of Texas | *Austin, Texas*
Education, Voice: Lean fundamentals with case studies relevant to structural engineers
- 2010 **“An Overview to Target Value Design”** | LCI New England | *Boston, Massachusetts*
Education: Fundamentals education of the use of Target Costing as applied to design
- 2010 **“Texoma Medical Center Case Study”** | Healthcare Executive Forum | *Dallas, Texas*
Delivery: Project case study on the value added with collaborative
- 2010 **“Building Lean”** | Young Constructors Council | *Dallas, Texas*
Voice: Impact of Lean Design on Construction

CLASSES TAUGHT

- 2022 **“Lean Construction”** | Guest Speaker, Professional Practice | Kansas State University | *Manhattan, Kansas*
- 2022 Last Planner System in Design | *Oklahoma City, Oklahoma*
- 2021 Last Planner System in Design | *Cleveland, Ohio*
- 2021 **“Lean Construction”** | Guest Speaker, Professional Practice | Kansas State University | *Manhattan, Kansas*
- 2021 Guest Speaker, History of Women in Design Class | Kansas State University | *Manhattan, Kansas*
- 2021 **“All Things Lean”** Video Course | Construction Management Association of America (CMAA) | *Online Education*
- 2019 Lean Six Sigma Yellow Belt for Design | *Salt Lake City, Utah*
- 2018 Intro to Lean | *Kansas City, Missouri*
- 2018 Lean Six Sigma Yellow Belt for Design | *Atlanta, Georgia*
- 2018 Lean Six Sigma Yellow Belt for Design | *Dallas, Texas*
- 2018 Lean Six Sigma Yellow Belt for Design | *Washington, DC*
- 2018 Lean Six Sigma Yellow Belt for Design | *New Delhi, India*
- 2017 Intro to Lean | *Kansas City, Missouri*
- 2017 Intro to Lean | *Dallas, Texas*
- 2017 Intro to Lean | *Austin, Texas*





NATIONAL DESIGN AWARDS

- 2017 **The Center for Health Design** | Silver Recognition, Evidence-Based Design | Touchstone Award
Akron Children's Hospital Kay Jewelers Pavilion
- 2016 **Association of Energy Engineers** | Innovative Energy Project of the Year
Akron Children's Hospital Kay Jewelers Pavilion
- 2016 **Healthcare Design** | Pediatric Care
Childrens Health Childrens Medical Center Dallas
- 2014 **Modern Healthcare Design Awards** | Built Cancer Support Center
Moncrief Cancer Center
- 2014 **Associated Builders and Contractors, Inc.** | Eagle Award - Healthcare
Martin Health System Tradition Medical Center
- 2014 **Ballard Howell Lichtig** | Collaborators of the Year Award
Cook Children's Medical Center - Rosedale Office Building
- 2013 **ENR Texas and Louisiana Best Project** | Best Health Care Project
Moncrief Cancer Center
- 2005 **The Center for Health Design** | Healthcare Design Award
The George Washington University Hospital
- 2003 **Associated Builders and Contractors** | Excellence in Construction Award
The George Washington University Hospital

“In a world previously dominated by builders and men, Bernita has advocated for better processes and value, inspired meaningful change, and transformed the conservative and risk-averse AEC industry with performance based design and delivery.”

~ Julie, Hiromoto | FAIA, Living Future Accredited, WELL AP, LEED AP
Director of Integration | Principal, HKS

NATIONAL INDIVIDUAL HONORS

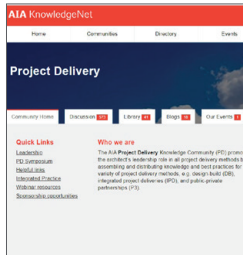
- 2018 **Nominated for Changemaker Award** | The Center for Health Design
Bernita was nominated for this award because of her role in changing project delivery within the healthcare construction industry.
- 2015 **Chairman's Award** | Lean Construction Institute | 17th Annual Congress | *Boston, MA*
Bernita received LCI's premier annual recognition for an individual who has served the Institute with extraordinary distinction and has furthered its mission of transforming design and construction through Lean tools and techniques.
- 2013 **Lean Self** | Lean Beyond Award
Award for Bernita's contribution to the Lean body of knowledge

STATE / LOCAL DESIGN AWARDS

- 2019 **Dallas / Ft Worth Topping Out** | Dallas Ft Worth Topping Out Award
Texas Scottish Rite Hospital for Children North Campus
- 2017 **Dallas Business Journal** | Best Real Estate Deal - Medical
Texas Scottish Rite Hospital for Children North Campus
- 2015 **AIA Orlando Chapter** | Built Award of Merit
Martin Health System Tradition Medical Center
- 2015 **AIA Akron** | Honor Award, New Construction
Akron Children's Hospital Kay Jewelers Pavilion
- 2015 **Fort Worth Beautiful Award**
Moncrief Cancer Institute
- 2014 **Texas Society of Architects** | Design Award
Moncrief Cancer Institute
- 2014 **AIA Dallas** | Honor Award
Moncrief Cancer Institute
- 2004 **AIA|DC** | Honor Award
The George Washington University Hospital

“The building design and construction industry must embrace change now. Stresses with finding talent, budgets, schedules, and the needs of clients call for change in approach. Companies are looking not only at how we work, but how we work with others.”

~ Bernita Beikmann, AIA | Building Design + Construction



PUBLICATIONS AUTHORED BY THE NOMINEE

“Integrating Evidence Based Design and Lean for Better Project Outcomes” *Leanconstructionblog* | Author | August 2020

“Top Ten take-aways from the Lean Construction Institute Congress 2019” *Building Design + Construction* | Author | October 2019

“Transforming the Design Process” *AIA Project Delivery Knowledge Community Website* | Author | 2019

“Don’t Conform, Transform” *Lean Construction Institute* | Co-author with other LCI members | 2018

“Target Value Delivery – Practitioner Guidebook to Implementation” *Lean Construction Institute* | Co-author with other Industry Experts | 2015

“Transforming Design and Construction: A Framework for Change” *Lean Construction Institute* | Co-author with Industry experts | 2015

“L3: Lean Operations, Lean Design, Lean Construction- Building a Lean Hospital Facility” *Akron Children’s Hospital* | Co-author with the project team | 2014

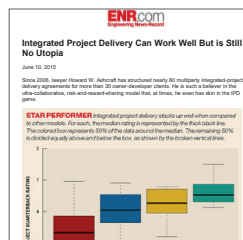
“Patients Determine the Value of Healthcare Design” *Healthcare Design* | Blog Author | February 2014

“Lean: DO Try this at Home” *Lean Blog by Mark Graban* | Blog Author | October 2013

“Bringing Lean Principles into Sustainable Design” *Design Intelligence* | Author | July 2012

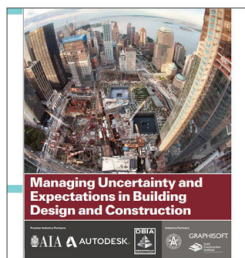
“12 Meeting Facilitation Techniques to Improve Healthcare Design and Development” *Academic research paper International Group for Lean Construction* | Co-author with Cynthia C.Y. Tsao | July 2012

“Lean Design” *Healthcare Design* | Blog Author | September 2011



“When using Lean methods on healthcare design projects, the goal is to maximize value for your customer and minimize waste. Designers have to ask the question, “Who is my customer and what do they value?”

~ Bernita Beikmann, AIA | Healthcare Design



“Defining Lean: Working Smarter, Not Harder”

TEXO | Author | Spring 2010

“Five Lean Principles Deliver at Texoma Medical Center”

Medical Design and Construction | Author | 2010

PUBLICATIONS ABOUT THE NOMINEE / NOMINEE’S WORK

“Scottish Rite for Children Orthopedica and Sports Medicine Center has Lean, Patient Oriented Design”

Dallas Innovates | April 2019

“In Frisco, new Scottish Rite sports medicine hospital for kids will tap into ‘Sports City U.S.A.’ culture”

Dallas Morning News | September 2018

“Lean Hospitals: Improving Quality, Patient Safety, and Employee Engagement”

CRC Press | Interviewed with Mark Graban in Chapter 3 | 2016

“Integrated Project Delivery Can Work Well But is Still No Utopia”

Engineering News-Record | June 2015

“Lean Processes to Reduce Uncertainties”

Managing Uncertainty and Expectations in Building Design and Construction McGraw Hill Report | 2014

“Design Land Students unveil outpatient sports facility designs”

Archone- Texas A&M College of Architecture | 2014

“Construction team takes a page from the Buckeyes Playbook”

Building on the Promise Akron Children’s Hospital | September 2013

“And the award goes to...”

Akron Children’s Hospital blog feature | 2013

“IU Health Uses Innovative IPD Process”

Building Excellence in Design & Construction | July 2012

“Perception vs. Reality: Women in Construction”

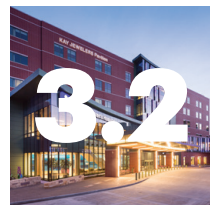
MORE | 2011





Lean and Transformational Leadership

Educating Designers and Constructors on a New Way to Deliver Better Results



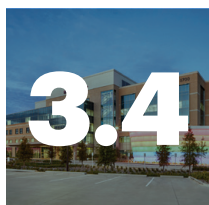
Akron Children's Hospital Kay Jewelers Pavilion Akron, Ohio

Lean and Transformational Education in the Design and Construction Industry



Riley Hospital for Children Simon Family Tower Indianapolis, Indiana

Lean Principles in Design Improve Patient Outcomes, Lean in Construction more Value



Texas Scottish Rite Hospital for Children Frisco, Texas

A Longstanding Partnership Delivers a Project in a Brand New Way



George Washington University Hospital Surgery Renovation Washington, D.C.

Lean Design Methods on Small Scale Projects Provide Big Value



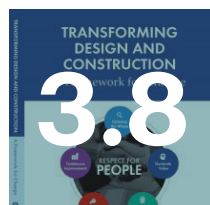
Texoma Medical Center Denison, Texas

A New Method of Collaborative Design and Construction



Lean Six Sigma Yellow Belt Education Program

Translating Lean Six Sigma Training into a Program just for the Design Industry



Authorship & Advocacy Through Publications

Contributing to the Lean Body of Knowledge



LCI AIA Design Forum

Enhancing the Voice of Design in the Design Forum.

LEAN AND TRANSFORMATIONAL LEADERSHIP

Educating Designers and Constructors on a New Way to Deliver Better Results



"In recent LCI/ AIA sponsored research studies 36% of the "very high Lean" projects reported opportunities for design innovation, high levels of sustainability, and "progressive aesthetics," versus 10% for low Lean projects. In other words, intense use of Lean not only saved time and money, it often produced greener, more beautiful buildings."

~ LCI AIA Research study of Lean in the Design Process, 2018

Architecture Firm of Record: **N/A**
Completion Date: **Ongoing**
Role of Nominee: **Volunteer / Leader**

Exhibit 3.1: Lean and Transformational Leadership

“I can think of no better example of the power of Bernita’s voice than her involvement with the Lean Construction Institute where she currently serves on the Board of Directors. As an architect and as a woman, Bernita offers a perspective that is **rarely encountered** in the Lean sub-set of the male-dominated construction industry.”

~ Romano Nickerson, AIA | Principal | Boulder Associates

CHALLENGE

The McKinsey Global Institute’s study on *Reinventing Construction: A Route to Higher Productivity 2017* included specific metrics about the construction industry as a whole and offered action in seven areas that included rethinking design, rewiring contracts, and infusing technology and innovation. Several other research studies evidence that the construction industry has issues with innovation and productivity.

The AIA’s collaboration with McGraw Hill on *Managing Uncertainty and Expectations in Design and Construction 2014*, launched similar statements and expanded on the opportunities for performance improvement. 77% of people polled agreed that improvement will involve collaboration between design and construction participants.

The design and construction industry has recognized the need for change, and they need leaders to guide them through that change. Bernita has led and continues to lead organizations dedicated to radically disrupting the industry.

ROLE

- › AIA/AGC National Joint Committee Member
- › **First Architect Chairman** of Lean Construction Institute Board of Directors
- › LCI DFW Founding Member and Core Group Leader
- › LCI Certified Instructor and national expert

OUTCOMES

- Over 50 presentations given in over 20 states
- First architect to be Chairman of the Lean Construction Institute Board of Directors
- Gave insight to the design industry on methods to transform their business
- Created change management insight to help design professionals with their transitions
- Refined an empathy program for designers and constructors called “Walk a Day,” which is now a program with the Construction Leadership Council
- Lobbied university leaders asking to teach collaboration among design and construction programs
- Created LCI’s Design Committee to improve the programs, education, and content for design leaders and inform builders of the constraints designers face
- Bernita has spoken at industry events for AIA, AGC, LCI, CSI, CURT, CMAA and Healthcare Design

DECLARATION OF RESPONSIBILITY

I have personal knowledge of the nominee’s responsibility for the exhibit listed above. That responsibility included: Other, National Leadership

Rebecca Snelling | National Director of Lean Construction
Lean Construction Institute Director



AKRON CHILDREN'S HOSPITAL KAY JEWELERS PAVILION AKRON, OHIO

Lean and Transformational Education in the Design and Construction Industry



"Throughout this project, Bernita increased our knowledge and engaged the team in a way that drove innovative ideas. She worked side-by-side with the entire team, sharing her knowledge."

~ Sheryl Valentine | Lean Six Sigma Deployment Director | Akron Children's Hospital

AoR / Design Firm: **HKS with Hasenstab Architects**
Completion Date: **2015**
Role of Nominee: **Lean Educator**

Exhibit 3.2: Akron Children's Hospital Kay Jewelers Pavilion Akron, Ohio



Bernita led all Lean and Integrated education sessions.



All designers, constructors and end users involved in the project had to go through her two-day Lean Boot camp.



All exchanges of information and decisions were planned by the team and tracked through Pull Planning led by Bernita, reducing time and errors.

CHALLENGE

In 2012, Akron Children's Hospital embarked on a national search for the most innovative and experienced design and construction team to deliver their project with an IPD contract and Lean processes. The final team was composed of multiple companies with and without IPD experience.

The original project estimates came in above the capital the hospital had to spend. The IPD team had a goal to reduce baseline space and cost needs by 20%. As part of the Integrated Form of Agreement the entire team's profit was at risk.

ROLE

As the Integrated Project Delivery leader, Bernita was viewed as the client's most valued team member. Bernita created an education program to train the hundreds of designers, constructors, and hospital staff, resulting in operational excellence, project awards, and significantly improved metrics.



At the end of construction, Bernita facilitated a retrospective including everyone from the hospital CEO to trade contractors to convey what the team learned, document it, and share with the industry.

PUBLICATIONS

"Did It Work? Integrated Lean Project Delivery at Akron Children's." Bernita Beikmann, HKS Insight, June 2015

"Efficiency in Operation – Lean Methods Streamline Design, Construction of Akron Children's Hospital Addition." Mark Watt, *Akron Properties Magazine*, June 2015

"Akron Children's Hospital Opens \$180 Million Patient Care Facility Ahead of Schedule, Under Budget." *Healthcare Facilities Today*, May 2015

"The 3Ps of Lean Design." Bernita Beikmann, HKS Smart Healthcare Blog, February 2013

"Changing the Rules: Lean Design." Rachel Saucier Knox, HKS Health press release, January 2013

"L3: Lean Operations, Lean Design, Lean Construction-Building a Lean Hospital Facility." Akron Children's Hospital Project Team, 2014

"Construction team takes a page from the Buckeyes Playbook." *Building on the Promise Akron Children's Hospital* | September 2013



Operational flows and constructibility were tested in full size mockups throughout design. This practice helped verify square footage, but also saved money on re-work and let the construction team make recommendations on other cost savings.

Exhibit 3.2: Akron Children's Hospital Kay Jewelers Pavilion Akron, Ohio

84%
agree that patient rooms provide adequate access to daylight and views.
//FPE survey question response



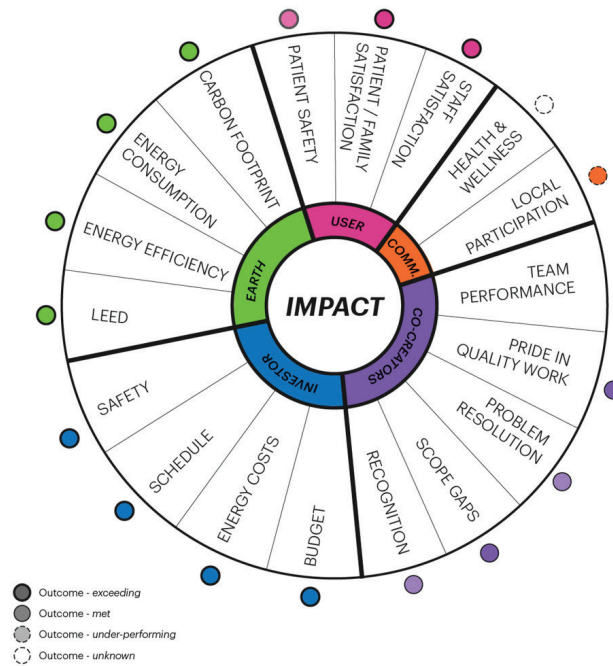
76%
agree that the overall building provides convenient access and wayfinding.
//FPE survey question response



88%
of patients and families are positive about the patient room design.
//FPE survey question response



94%
of respondents think the waiting areas provide positive distractions.
//FPE survey question



- 0 CHANGE ORDERS**
54 DAYS BEFORE SCHEDULE
\$44 MILLION UNDER BUDGET
50.2% ENERGY COST SAVINGS
- 67 POINT INCREASE IN PATIENT SATISFACTION**
70% INCREASE IN STAFF SATISFACTION
- BETTER PLACES FOR PEOPLE DESIGN AWARD**
AIA OHIO DESIGN AWARD
CHD TOUCHSTONE AWARD (PENDING)
- LEED GOLD**
48.5% TOTAL GREENHOUSE GAS EMISSIONS SAVINGS
53.7% REDUCTION IN FUEL AND ENERGY CONSUMPTION

OUTCOMES

- Lean design use of value stream mapping and full scale mockups led to 21% in space savings on the original program
- The Kay Jewelers Pavilion was completed two months ahead of schedule
- \$60 million dollars in savings, \$44 million dollars under budget
- Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores increased from 59th percentile to 99th percentile three months after the move
- This project has won five awards to date

DECLARATION OF RESPONSIBILITY

I have personal knowledge of the nominee's responsibility for the exhibit listed above. That responsibility included:
Project Under Direction of Nominee

Sarah Kuchera, PE, LEED AP | Vice President
WSP (MEP Engineer for project)

RILEY HOSPITAL FOR CHILDREN SIMON FAMILY TOWER INDIANAPOLIS, INDIANA

Lean Principles in Design Improve Patient Outcomes, Lean in Construction more Value



“The IPD process brought an entirely new focus to our building project. It’s no longer just about on-time and under-budget. The focus is now on outcomes we can achieve with the new building, how we can provide a greater long-term value through the life of the building, and most importantly what our patients and families experience and feel long after the keys have been handed over.”

~ Dr. Jeff Sperring | CEO | Riley Hospital for Children

AoR / Design Firm: **HKS with RATIO Architects**
Completion Date: **2013**
Role of Nominee: **IPD Leader**

“The design process for the NICU began with a primer on lean philosophy, value stream mapping and 5S planning. The time spent was worthwhile, as the team ‘grew’ together and wrestled with hard issues.”

~ Bill Engle, Medical Director of Neonatology, Riley Hospital for Children at IU Health



Bernita taught the team collaborative Pull Planning, helping them coordinate work between designers and constructors and keeping the project on schedule.

Pull Plan defined: A collaborative approach for executing a specific phase of a project using a ‘pull’ technique to determine hand-offs. Prepared by the team actually responsible for the work, the effort is planned at the ‘request’ of a downstream ‘customer.’

CHALLENGES

In 2010 IU Health decided to put their Simon Family Tower project on hold and hire a new team with a new contract, an Integrated Form of Agreement. Bernita led the new team in the education and management of the redesigned process. IU Health asked the team to look at the waste in design and create a process that eliminated rework, encouraged collaboration, and increased value to the owner.

The original program was 10 years old when the new design team started. Medical technology had advanced and users needs had changed. This also affected the capital budget for the project.

The entire team put 10% of its project profit at risk, dependent on performance to specific conditions of satisfaction. This was the first IPD project for most companies, and Bernita educated the team on methods and tools for success and provided confidence that the team could collectively achieve goals.

ROLE

As IPD leader, Bernita redesigned the process to remove rework and errors and respond to operational demands of the pediatric specialized departments.

OUTCOMES

- No RFIs on the project and eliminated non-owner change orders, saving on construction costs
- Saved \$1 million (40 items) by re-evaluating IU Health construction and design standards
- Saved \$1.5 million working with the MEP design and construction team on MEP savings
- Added renovation of additional spaces at no cost to owner
- Improved the hospital HCAHPS scores by integrating patients into design process
- Eliminated claims or disputes with a highly collaborative team process
- Encouraged and hosted other design and construction teams to visit site so they could learn from the Riley team
- The project’s impacts and lessons learned have been published on multiple occasions

DECLARATION OF RESPONSIBILITY

I have personal knowledge of the nominee’s responsibility for the exhibit listed above. That responsibility included: Project Under Direction of Nominee

Andrea Sponsel, RID, IIDA, EDAC, LSSBB, LEED AP | Former Director of Lean Strategy and Change Management | BSA LifeStructures Interior Designer on this project

Exhibit 3.3: Riley Hospital for Children IU Health Simon Family Tower Indianapolis, Indiana

LEAN METHODS USED

Gembas



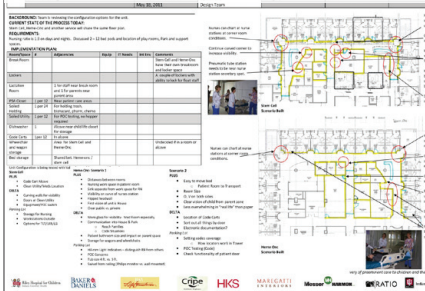
Pull Plan



Mock-ups



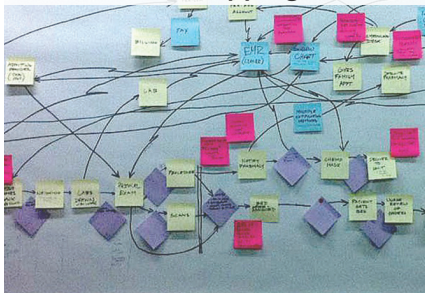
A3s



Scenario Testing



Value Stream Mapping



LEAN RESULTS

30% Savings in energy costs

8 items identified through value stream mapping that saved \$325,000

FLEXIBILITY – standardized spaces can change on a daily, monthly, or yearly basis

0 Requests for Information, claims or disputes

“This IPD project is unique because 100 percent of the team profit is at risk. Conditions of satisfaction are being used to determine the amount of profit the team earns. Because of this, each team member has a stake in the game.”

~ Donnie Reed | former Director of Operations | Riley Hospital for Children at IU Health

SCOTTISH RITE HOSPITAL FOR CHILDREN- NORTH CAMPUS FRISCO, TEXAS

A Longstanding Partnership Delivers a Project in a Brand New Way



“Ms. Beikmann emulates TSRHC’s mission as a teaching hospital through her frequent and tireless efforts to teach others key healthcare design principles. I’ve witnessed her instructive interactions with a wide range of young professionals, much to their benefit.”

~ Don Katz | Vice President of Facilities & Process Design | Texas Scottish Rite Hospital for Children

AoR / Design Firm: **HKS**
Completion Date: **2018**
Role of Nominee: **Principal-in-Charge**

Exhibit 3.4: Texas Scottish Rite Hospital for Children Frisco, Texas

“Throughout the entire design and construction process, Lean Delivery played a critical role that led to the project continuing to be well within budget, on time, and with minimal requests for information (RFI’s) from the contractor side, ultimately saving the hospital money.”

~ Allison Tabor | Facilities Project Manager | Texas Scottish Rite Hospital for Children



Value stream mapping helped improve operations and create new service lines.



Staff and physician engagement in a design matrix allowed them to flex spaces between services.

25%

of the space was designed specifically to allow for flexibility and adaptability using Lean design methods

CHALLENGE

TSRHC treats many of the world’s most complex orthopedic cases as well as certain related arthritic and neurological disorders and learning disorders, such as dyslexia. TSRHC desired to create a new campus dedicated to diagnosing, treating, and preventing sports injuries in adolescents. In a new market, retaining their brand while also having the capacity to change in the future was important.

Under Bernita’s direction, the design team used Lean methodology to evaluate current and future operations to allow flexibility for an ever-changing health environment. The team used Value Stream Mapping, a visual tool showing steps in operations, at the existing facility to evaluate and apply improved processes to the architectural design for the new service lines.

Bernita continued to work with the design and construction team bringing in Target Value Delivery-design to cost methods that kept the project in budget and allowed for value adds.

ROLE

Bernita was responsible for the design of the project, led Lean operational improvement and medical planning for end users, facilitated Target Value Delivery sessions with the team, and facilitated all collaborative team meetings.

OUTCOMES

- Value Stream Mapping was facilitated by Bernita’s team to understand current and future operations at the new campus
- 3-P (People, Process, Product) design events with Rapid Prototype mock-ups allowed for quick decision making and consensus
- The outpatient facility opened in October 2018 and is designed to grow into a full service hospital in the future with planned shell spaces and amenities
- Conference spaces, playgrounds, and sports fields are provided for community use
- Therapy Pools were added to project as a value-add with no additional cost to project
- Winner of the Topping Out Top Ten Award

DECLARATION OF RESPONSIBILITY

I have personal knowledge of the nominee’s responsibility for the exhibit listed above. That responsibility included: Project Under Direction of Nominee

Don Katz, Vice President of Facilities & Process Design
Texas Scottish Rite Hospital for Children
Owner Representative on this project

GEORGE WASHINGTON UNIVERSITY HOSPITAL SURGERY SUITE WASHINGTON, DC

Lean Design Methods on Small Scale Projects Provide Big Value



"This project has proven to be the most successful I have worked on while at UHS. The success is a direct result of the team's efforts working together toward a common goal - deliver a project that exceeded the customer's expectations."

~ Timothy Ott | Asst. Dir. of Project Management | UHS

AoR / Design Firm: **HKS**
Completion Date: **2009**
Role of Nominee: **Project Architect**

Exhibit 3.5: George Washington University Hospital Surgery Suite Washington DC

The project management through lean fundamentals provided great value to GWU Hospital by exceeding delivery and financial performance expectations. Communication with full transparency of actions and coordination to eliminate operational impact assisted with the performance of the hospital during a large scale construction project.

~ Kimberly Russo | Chief Operating Officer | The George Washington University Hospital



Bernita led collaborative Pull Planning with the design and construction team, while understanding constraints and innovative phasing cut the schedule in half.



Through careful analysis of current practices, the design team discovered enough underutilized space to increase the program by 45%.

CHALLENGE

George Washington University Hospital saw a consistent increase in surgical volume over the five years prior to this project. The demands on the hospital ORs created a downstream challenge for recovery spaces.

Program analysis determined that the facility needed to add two new operating rooms and 19 new recovery beds. Located on an urban site within George Washington University, there was no ability to add square footage to the hospital.

The hospital's current workload demanded that there be no operational effects of any construction project taking place within the facility.

The team created IPD goals, including:

- No unscheduled disruptions to operations
- Total project transparency
- No stopping of work
- Incorporate added scope of emergency cooling
- No RFIs, change orders, or reworks

ROLE

Bernita was tasked with educating the team on Lean Methods and IPD. This was the first IPD project for most of the companies involved, and Bernita guided the team through the successful process.

OUTCOMES

Bernita led observations of staff's operational processes and patient flow to determine efficiency gaps in the existing space. Her analysis eliminated wasteful processes to recover the needed space and increase throughput. The expansion could take place without actually adding square footage. Other outcome metrics included:

- GMP was decreased 20% from early estimates
- The original schedule was cut in half due to design/contractor team collaboration and innovative phasing
- The project was under construction for eight months with no RFI's and minimal rework
- The project added additional program without increasing square footage on an urban site
- Only work stopping was due to VIP patient
- Additional requested scope added at no cost

DECLARATION OF RESPONSIBILITY

I have personal knowledge of the nominee's responsibility for the exhibit listed above. That responsibility included: Project Under Direction of Nominee

Sarah Kuchera, PE, LEED AP | Vice President
WSP (MEP Engineer for project)

EXHIBIT 3.6

TEXOMA MEDICAL CENTER DENISON, TEXAS

A New Method of Collaborative Design and Construction



"Working with healthcare providers, designers, and builders through the lens of Lean thought, Bernita showed the industry that respectful integration of the team can bring about improved outcomes through waste elimination."

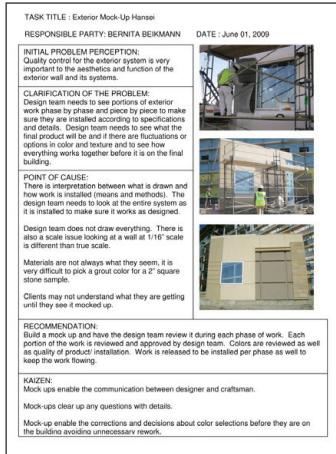
~ Bill Seed | Sr VP Jackson Health System | former VP of Facilities and Construction at UHS

AoR / Design Firm: **HKS**
Completion Date: **2010**
Role of Nominee: **Chief Design Officer**



For Texoma Medical Center, every aspect of the process was reviewed and analyzed from day one – including operational processes, design processes, and construction implementation. This applied to square footage, design elements, structural steel, and MEP systems. Our job was not to just to design the building, but the entire delivery system.

~ Bernita Beikmann, AIA | Medical Design & Construction



One-page Kaizen documents were developed by Bernita to share issues, corrections and prevent future errors from occurring.



Bernita led frequent construction tours to educate staff on Lean tools and process used on this project.

CHALLENGE

Universal Health Services purchased the Texoma system with the promise of building a new greenfield hospital. A team was hired with the challenge to deliver the project in a new way. The project team of designers, engineers, and constructors were put through a Lean education program, but no participant in this project had previous collaborative project experience. The project, with over 360,000 sf of programmed space, was to be built with the following requirements:

- Reduce the estimated schedule by four months
- Reduce the estimated cost by \$4 million
- No punch list, RFI's, change orders, or rework
- No construction injuries
- Innovative ideas would be rewarded with possible bonus to project participants

ROLE

Bernita led the project and was accountable to the team for all design work. This was the first Lean delivery project for this team.

PUBLICATIONS

“Five Lean Principles Deliver at Texoma Medical Center.” Bernita Beikmann, *Medical Construction & Design*, July /August 2010.

“Defining Lean: Working Smarter, Not Harder.” Bernita Beikmann, TEXO, Spring 2010.

OUTCOMES

- Added a floor of shell space for flexibility without added cost
- Added emergency power for HVAC without added cost
- Upgraded paving on site without added cost
- Additional cath lab equipment included without added cost
- Increased technology in operating rooms without added cost
- Advance health/safety systems for labor and delivery rooms
- No construction injuries
- Team received \$1.7 million in innovation bonuses for ideas implemented during project
- Bernita’s team was awarded additional bonuses because of her added efforts to educate others
- This project transformed UHS. All of their future projects were procured through the use of IPD contracts

DECLARATION OF RESPONSIBILITY

I have personal knowledge of the nominee's responsibility for the exhibit listed above. That responsibility included: Project Under Direction of Nominee

Chris Wall | Operations Manager
Brasfield & Gorrie, LLC
General Contractor for the Project

LEAN SIX SIGMA YELLOW BELT PROGRAM FOR DESIGNERS

Translating Lean Six Sigma Training into a Program bespoke to the Design Industry



"Bernita did an incredible job breaking down the material and presenting it in fun, understandable ways. It was an awesome two days – I'm excited to put this stuff into practice!"

~ Southern C. Ellis, AIA

AoR / Design Firm: **N/A**
Completion Date: **2016**
Role of Nominee: **Program Creator**

Exhibit 3.7: Lean Six Sigma Yellow Belt Education Program for Designers

“Thank you for sharing your time and experience in DC last week. I found the course valuable to improving how I work and how I can contribute to my team, and am excited to start using what I have learned.”

~ Jennie Black, AIA



This Lean Six Sigma program enables participants to gain performance improvement insight of Lean Six Sigma, interpreted for how we improve our industry.



The program includes simulations illustrating what would be done in a client meeting or on a construction site.

CHALLENGE

Many universities and consultants around the world teach the management approach to business performance improvement known as Lean Six Sigma. These programs offer tools and methods to analyze and refine processes, reduce variation and defects, and improve quality. They are data driven but unfortunately rely on tools and methods that are not always appropriate to use for the world of design and construction where the people, products, and processes change continually.

Bernita created a two-day Lean Six Sigma for Design program, which teaches the knowledge required for understanding Lean Six Sigma methodology, adapted for the design and construction professional.

ROLE

As a Lean Six Sigma Black Belt, Bernita created a national Lead Six Sigma Yellow Belt program for the design industry, which did not exist prior to Bernita's contribution of her leadership.

OUTCOMES

- Two-day curriculum that incorporates simulations with Lean Six Sigma Business performance improvement strategies with those needed in design and construction

- Developed Lean Six Sigma manual covering content and providing resources
- Building simulation illustrates setting project goals, generating design strategies, value stream mapping, design 3-P (People, Process, Product), continuous improvement, decision making systems, collaborative scheduling, and target value delivery
- Greater understanding with design professionals on how these methods can be applied to projects
- Hundreds of certifications personally taught and given for designers in Atlanta, GA; New York, NY; Washington, DC; Richmond, VA; Dallas, TX; Salt Lake City, UT; Denver, CO; Shanghai, China; and New Delhi, India
- Content has been shared with industry professionals and with organizations like the Lean Construction Institute to enhance design education opportunities

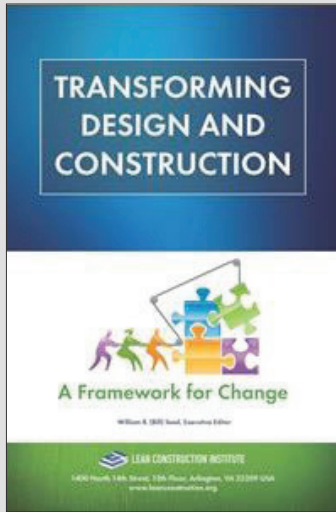
DECLARATION OF RESPONSIBILITY

I have personal knowledge of the nominee's responsibility for the exhibit listed above. That responsibility included: Other: Creating, Leading, and Teaching the Curriculum

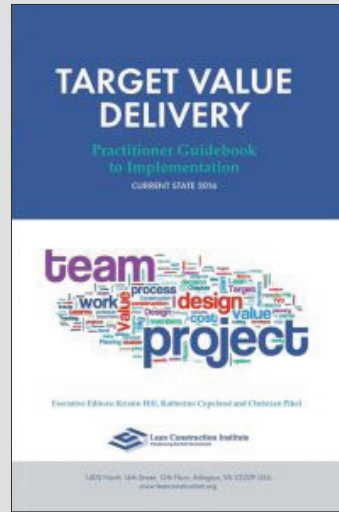
Andrea Sponsel, RID, IIDA, EDAC, LSSBB, LEED AP | Former Director of Lean Strategy and Change Management | BSA LifeStructures
Andrea has been through the Program

AUTHORSHIP & ADVOCACY THROUGH PUBLICATIONS

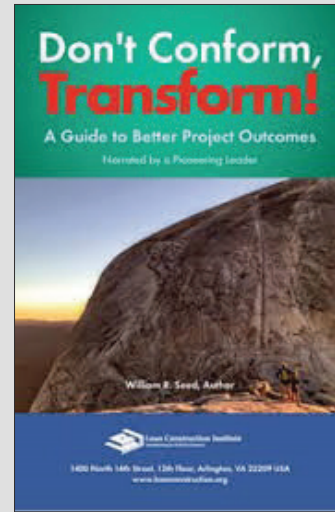
Contributing to the Lean Body of Knowledge



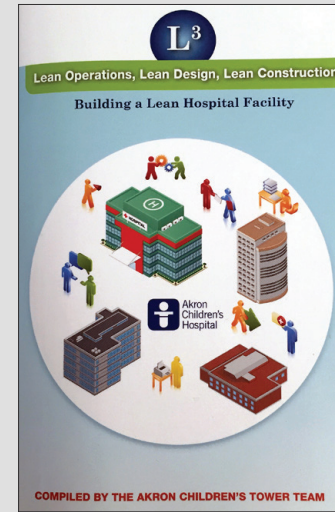
The first of LCI's Transforming Design & Construction series, this book encourages discussion, learning, and experimentation around lean processes. Bernita was an author, editor, and contributed graphic content.



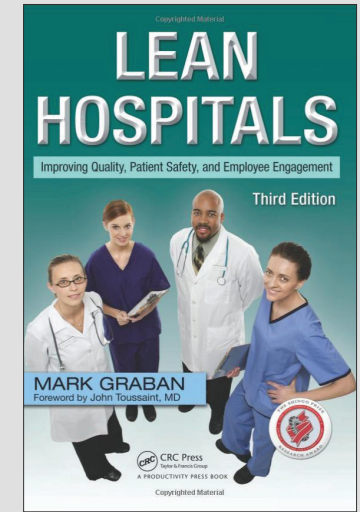
The second of LCI's Transforming Design and Construction series, this book was written by a team of over 20 Target Value Design practitioners to provide readers with a 'how-to' on real projects. Bernita was an author, editor, and contributed graphic content.



The third of LCI's Transforming Design and Construction series, this book clarifies the framework of Lean and IPD with real-world experiences. Bernita contributed stories, case studies, and graphic content, as well as editing assistance.



Members of the Akron Children's Hospital Kay Jewelers Pavilion team shared lessons learned on a collaborative project designed to deliver a new facility for the best value. Bernita contributed to the chapter on education.



This book explains how to use the Lean methodology and mindsets to improve safety, quality, access, and morale while reducing costs, increasing capacity, and strengthening the long-term bottom line. Bernita contributed the content for Chapter 3: Lean Design.

"This body of knowledge has provided the LCI community with a major and lasting benefit in support of their Lean journeys."

~ Dan Heinemeier, LCI Director

AoR / Design Firm: **N/A (Lean Construction Institute)**
Completion Date: **2018**
Role of Nominee: **Author and Editor**

Exhibit 3.8: Authorship & Advocacy Through Publications

“We recommend ‘Transforming Design and Construction: A Framework for Change’ to anyone in our company who is just starting their Lean journey. It’s a great overview of the process and all of the different tools. The way it was written, the cues are an effective visual.”

~ Andrea Sponsel, RID, IIDA, EDAC, LSSBB, LEED AP | Director of Lean Strategy and Change Management | BSA LifeStructures



1,000s

thousands of books in publication

30/3

facilitated multiple group events of up to 30 industry leaders that led to three book publications

CHALLENGE

The design and construction industry needed a model of how to begin, implement, and structure collaborative project delivery. Books existed for how Lean and the Toyota Production System worked in manufacturing and healthcare, but not specifically in design and construction. The Lean Construction Institute decided to gather practice experts to create guidebooks. The books were created over three years in multiple sessions, two of which Bernita hosted.

Mark Graban has written several books on Lean as applied to the healthcare industry. He met Bernita during his involvement as a consultant on the Riley Hospital for Children and asked her to write blogs for leanblog.org. Mark interviewed Bernita for her expertise in his third edition of *Lean Hospitals*.

The Akron Children’s team desired to share what they learned with the industry. The team compiled what they learned into the book *L3, Lean Operations, Lean Design, Lean Construction*. Bernita led the Education chapter of the book.

ROLE

Bernita’s lasting contribution to the Lean community is evidence in the convening of two LCI Knowledge and providing content for five industry influencing books on Lean education and Lean design.

OUTCOMES

- These books serve as a reference and model for lean design and construction in all market sectors
- Bernita contributed in multiple events generating content for the LCI books, worked with editors on revisions, and provided graphic content from her own work to explain concepts and processes
- Books were distributed through the LCI and Lean Enterprise Institute and are available on Amazon and through other sellers
- Catalyzed change in our industry to improve outdated delivery methods and wasteful practices
- Go-to resource for educational and team building events for project teams all over the United States within countless organizations
- Provide a universal model for project leadership globally and improved design and construction outcomes

DECLARATION OF RESPONSIBILITY

I have personal knowledge of the nominee’s responsibility for the exhibit listed above. That responsibility included: Other: Writing, Editing, and Contributing to Industry Publications

Dan Heinemeier | Director
Lean Construction Institute, Book Contributor

LCI AIA DESIGN FORUM

Enhancing the Voice of Design in the Design Forum.



"Attending the 2019 LCI Lean in Design Forum re-established my confidence to speak out against the traditional flow in a market where there are few believers, lots of doubters, and no trust that innovation and collaboration will bring better value at a more economical cost."

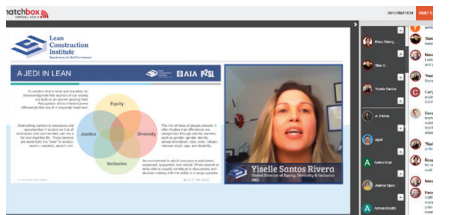
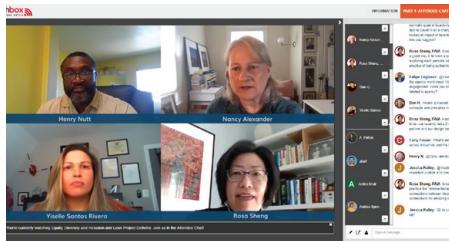
~ Attendee- Lean in Design Forum, 2019

AoR / Design Firm: **N/A (Lean Construction Institute)**
Completion Date: **2016-2020**
Role of Nominee: **Committee Member and Content Provider**

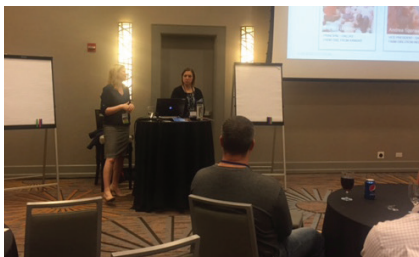
Exhibit 3.9: ICI AIA Design Forum

When I attend the Forum each year, I learn new innovations to Lean processes that enable more collaborative solutions to challenges we face. I look forward to exploring how Lean can be used during the design phase on any project to drive design excellence. Lean makes the design process better, minute by minute , project by project.

~ Todd Henderson, AIA | Principal | Boulder Associates



The 2020 Lean in Design event was held virtually and attracted valuable and timely topics.



Bernita is a frequent speaker and educator at the Lean in Design Forum.

CHALLENGE

For the past 18 years, the Lean Construction Institute, partnering nationally with the AIA and Project Production Systems Laboratory (P2SL, a research laboratory at University of California, Berkeley), has held a Design Forum focusing on Lean application in design. In the past this event drew many industry leaders but struggled to get the architectural design attendance. Content lacked depth, and impactful conversations and learning were needed.

Bernita planned and created content for the LCI/ AIA/P2SL Design Forum for the past three years as a committee member and LCI Board representative. She created a Design Committee within the board and identified the need to increase quality of design content within the conference.

ROLE

As an LCI AIA Design Forum committee member for the past five years, Bernita established curriculum, generated key content, and presented at the forum. Under her leadership, design content and participation improved.

OUTCOMES

- Attendance at events has increased in the last four years by over 210%
- Attendance of designers overall has increased in the last three years by 34%
- The event has been held at venues across the US including San Francisco, Chicago, Colorado Springs, Dallas, and St. Louis to attract local and national subject matter experts and attendees
- As a result of COVID-19, the team pivoted the 2020 Design Forum to a virtual event with a focus on Diversity and Inclusion in Design, with speakers from IDEO, Center for Health Design, University of Washington, and design firms like Gensler, Boulder Associates, Bostwick Design Partnership, Perkins and Will, HKS, and SmithGroup

DECLARATION OF RESPONSIBILITY

I have personal knowledge of the nominee's responsibility for the exhibit listed above. That responsibility included: Other: Leading Lean in Design Forum Improvements

Dan Heinemeier | Director
Lean Construction Institute, Lean in Design Committee Member

References for Bernita Beikmann, AIA

1. Kristin Hill

Director, Education Programs
Lean Construction Institute
1400 14th Street N, Suite 1200
Arlington, Virginia 22209
Relationship: Worked directly with Bernita on projects and education events

2. Stanley Chiu, AIA

Vice President
HGA Architects and Engineers
1301 Colorado Avenue
Santa Monica, California 90404
Relationship: LCI Board member and co-author of publications

3. Ralph Hawkins, FAIA

Former CEO
HKS
350 North St. Paul Street, #100
Dallas, Texas 75201
Relationship: Nominated Bernita for AIA/AGC Joint Committee;
Former Chair, AIA Large Firm Roundtable

4. Michael Murray, AIA, LEED AP

Director of Integrated Services
The Beck Group
1807 Ross Avenue
Dallas, Texas 75201
Relationship: Served with Bernita on the LCI Board of Directors, as the AIA Liaison

5. Donald Katz, MHA, CO, FAAOP

Vice President, Facilities and Process Design
Texas Scottish Rite Hospital for Children
2222 Welborn
Dallas, Texas 75219
Relationship: A client of Bernita's for the past ten years

6. Thompson E. Penney, FAIA

Chairman Emeritus
LS3P Associates
205 King Street
Charleston, South Carolina 29401
Relationship: Chair of the AIA/AGC Joint Committee when Bernita served;
2003 AIA President

7. Ashley Dias, AIA, ACHE, EDAC, LEED AP

Principal
Perkins & Will
2218 Bryan Street, #200
Dallas, Texas 75201
Relationship: Worked together on several previous projects

Sponsor

Duncan T. Fulton III, FAIA

Co-Founder and Chairman Emeritus
GFF Architects
2808 Fairmount Street, Suite 300
Dallas, Texas 75201
Relationship: Career-long mentor to Bernita

