

# Cardboard is the latest innovation in architectural design

Hands-on design by the people doing the work

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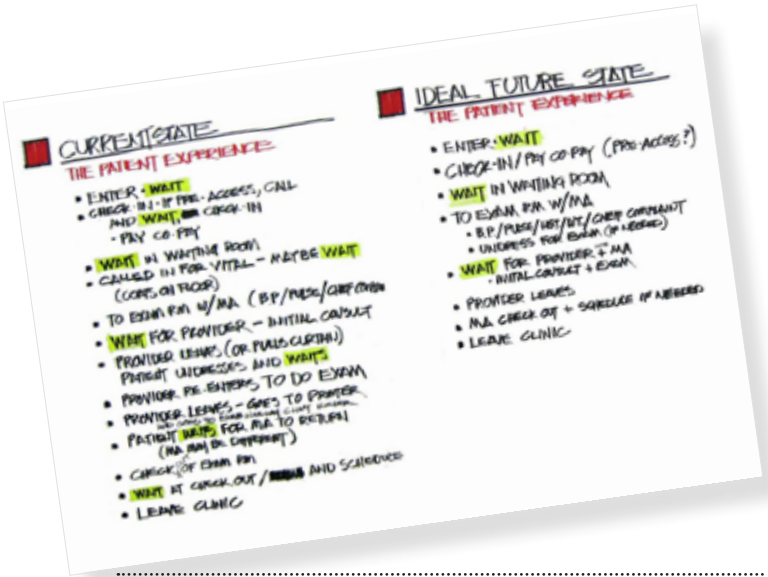
# A better way to design

3P refers to **People Preparation Process**, and is an adaptation of a concept of the Toyota Production System, called *Production Preparation Process*. It is a very effective design tool for healthcare because of the emphasis on efficient operating processes. The 3P approach develops the ideal process first, followed by the design of the layout that best supports that process. The design team works alongside facility employees, who have in-depth knowledge of their own workflow processes.

This approach comprises of a 3P event, typically an intensive week-long, hands-on workshop conducted with representatives from all of the key stakeholder groups. This will include everyone in the trenches, from providers and administrators to receptionists and materials managers. During this event, the users work with the design team to develop an ideal work process that suits how they work while eliminating waste and inefficiencies. The users and the architects build full-scale mock-ups out of cardboard to test, simulate, and finalize design ideas. This allows for:

- Turning ideas into physical models that people can visualize and relate to
- Concentration on flow and process improvement
- Simulating designs to test what works and modify what doesn't
- Providing an affordable and highly visible way to do a "Plan, Do, Check, Act" (PDCA) process that will result in a product that truly meets the users needs

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
<ul style="list-style-type: none"> <li>Establish objectives</li> <li>Document and explore current processes (Go to Gemba)</li> <li>Review current metrics</li> <li>Document current state</li> <li>Create alternatives</li> <li>Start mock ups</li> </ul>	<ul style="list-style-type: none"> <li>Build mock ups to simulate flow</li> <li>Simulate the process</li> <li>Evaluate alternatives, choose best three</li> </ul>	<ul style="list-style-type: none"> <li>Simulate</li> <li>Kaizen</li> <li>Simulate</li> <li>Reflect and repeat</li> </ul>	<ul style="list-style-type: none"> <li>Simulate</li> <li>Kaizen</li> <li>Simulate 3D process</li> <li>Lay out material flow</li> <li>Simulation review</li> </ul>	<ul style="list-style-type: none"> <li>Finalize mockups</li> <li>Finalize schematic design</li> <li>Report out</li> </ul>



Current and ideal state documentation



X-Ray mockup with door swings and clearances indicated





Team simulating patient visit in exam room



Team simulating a reception design concept



Design concepts developed and modified on site



Spaghetti diagrams measuring travel distances by users

*“ The 3P event was by far the most valuable exercise that I have every participated in, and I believe the efforts of the 3P will save us months of design time. We modeled the clinic based entirely on the patient experience, and made significant improvements in this process. It was also a wonderful team-building experience.”*

Sharon Booker | University of Iowa Health Center



**Current exam room:**

- Not zoned – provider has to cross exam room and squeeze by
- No accommodation for family or bariatric patients
- Computer setup does not promote eye contact with patients
- Design was never tested – equipment does not reach



**Future Exam Room:**

- Zoned with a Patient Side and a Provider Side
- Design accommodation for family or bariatric patients
- Computer setup for patient engagement
- Mockup tests for equipment accessibility



Boulder Associates' goal is to be a trusted advisor to our clients.

BOULDER ASSOCIATES has specialized exclusively in healthcare and senior living design since our founding in 1983. We understand the core issues that concern our clients, from broad economic and regulatory pressures to day-to-day operational challenges. We take these challenges on as our own, and we meet them by combining beautiful, innovative design with high-quality, efficient, and cost-effective solutions.

Our clients include some of the most progressive healthcare and senior living organizations in the United States. We help them set new standards for healing environments by aligning their facility investments with business strategies and

goals. We achieve this by emphasizing innovation, design and technical excellence, and a collaborative approach that forms lasting partnerships. Our hands-on approach focuses on one goal: to become a leader in design for health and aging by establishing ourselves as trusted advisors to our clients.

With offices in Colorado, California, and Texas, Boulder Associates maintains a staff of architects, interior designers, and graphic designers who all share a belief in the power of design to enrich lives. We believe that good design directly serves the needs of our clients, their patients and residents, and the surrounding communities.

*“Their ability collaborate with us to continually improve how our facilities support innovative operational models, is of great value.”*

*Robert Mitsch  
Sutter Health*

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