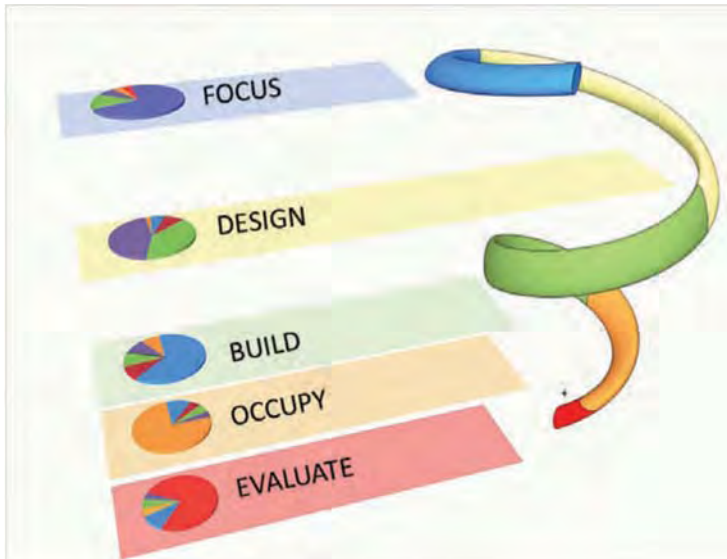


APPROACH

Design approach matters!



SLA 3D Spiral Advantage

One of the challenges architects face using the standard design approach is that issues uncovered at a later phase in the process may cost **10** to **1000** times more to resolve later.

We have taken a hard look at typical design project flows to determine what information is needed earlier in a design process, and have created a spiral prototyping technique that results in a virtual 3D model of facility concept(s) very early in the Focus phase.

This 'spiral' design approach, coupled with our 3D capabilities, provides multiple iterations of prospective designs and allows multiple touch points both forward and backward as a design is refined in this iterative work flow.

Design for industrial facilities is substantially different than design for commercial, retail or residential structures. Industrial facilities have a very specific mission in mind, and the design must be optimized for that mission. That is why we at Smith LaRock start with a series of *Focus Phase Charretts* or workshops where we uncover the purpose and intended use of the facility, the workflow within the facility, access and safety considerations for the workers within the facility, and the myriad of human and technology factors that make the facility a comfortable place to work. During this phase we apply a Human Factors Approach using both SLA & specialized HF Consultants, and our proprietary questionnaires and 3D tools to model the facility, validate ergonomic considerations, and provide a walkthrough for clear communication at this very early stage of the design.

In the subsequent *Build, Construct, Occupy, and Evaluate Phases* we leverage these 3D Tools and our unique project management approach to maintain the seamless integration from design through occupation. We pride ourselves on our ability to optimize the use of our engineering and construction partners who are also aligned with our overall value delivery goals.

Since we work exclusively in 3D, we can readily provide *design progress imagery* and virtual walkthroughs at any time for no additional cost (see examples of process models on the enclosed CD). We have developed this innovative modeling process to try to address and streamline the communication issues that can manifest in the later phases of the project by pulling more of the critical decisions to the initial stages of a project.

As an example, a control facility in south Texas was destroyed by hurricane Ike and our client, a major petrochemical company, was experiencing significant lost revenue every day the unit was not operational.

What started out as a standard interview for with SLA quickly changed into a sole-sourced engagement as we were able to quickly demonstrate our 3D process value. We came to work: a two hour interview turned into Day 1 of a 6 day design charrette at their request. We contributed to, and achieved, their goal to get them back on-line within 8 weeks. Our client had originally estimated that the effort would take over 6 months to remediate / restore operability. A Medal of Achievement was created for the entire team to celebrate this success.

