LEAN architecture

Basic QM principles applied to our job

LEAN

- "Lean" principles were developed by Toyota, and can be applied to any process regardless of the activity or product, including "manufacturing, software development, management, construction, and healthcare."

Portions of this module are based on, or quoted from, Jim Coplien, *"Lean & Agile and the Matter of Architecture", Architecture, Issue #5, Lean, 04-12-2011* and the *"Lean Architecture"* Website.

WHAT IS "LEAN"?

SIMPLY put, "Lean" is a series of principles applied to a production process to eliminate waste, unnecessary components, inconsistencies, and damaged components, so that production is more efficient, work is easier, and the product is better.

- In our profession, one of the things we do, is process information to design projects and to document the design so it can be built. The more efficient the flow of information is through this process, the better the products. This is "**Quality Assurance**".
- "Lean" also includes the examination of the product after production and after its use, the capture of feedback to detect failures so that we can implement "fixes," as well as the maintenance of the flow of information to keep it running efficiently. This is "**Quality Control**".

WHAT IS "Lean Architecture"?

Lean Architecture (a term copyrighted in 2014) as defined by

- "**Is the ongoing process of rethinking and improving architectural methodology.**
- **It is the pursuit of better work by applying Lean principles to every aspect of practice.**
- **It is about smarter information flow and understanding how we perceive and process information in order to be better communicators amongst ourselves and to the users of our services.**
- **It is identifying what adds value and reducing and eliminating what doesn't**."

http://www.leanarchitecture.com/

WE IDENTIFY IN OUR WORK WHAT ADDS VALUE,
AND WE KEEP IT
WE IDENTIFY IN OUR WORK WHAT DIMINISHES
VALUE AND WE ELIMINATE IT

Other QM METHODS

- **Six Sigma** is a method that seeks to improve the quality of the output of a process or service by identifying and removing the causes of defects and minimizing variability in manufacturing and business processes.